

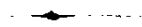
FIFTEENTH ANNUAL REPORT

OF THE

DEPARTMENT OF LAND RECORDS
AND AGRICULTURE,

BOMBAY PRESIDENCY,

FOR THE YEAR 1897-98.



BOMBAY:
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No. $\frac{A}{136}$ OF 1899.

FROM

W. P. SYMONDS, ESQUIRE, I. C. S.,
Acting Survey Commissioner and Director,
Land Records and Agriculture,
Bombay;

To

J. W. P. MUIR-MACKENZIE, ESQUIRE, I. C. S., M.R.A.C.,
Secretary to Government,
Revenue Department, Bombay.

Poona, 16th January 1899.

SIR,

I have the honour to submit the annual report of the Department of Land Records and Agriculture for the year ending 31st October 1898.

2. The report has been drawn up in accordance with the instructions laid down in the eighth Resolution of the Government of India, Revenue and Agricultural Department, No. 3—39-1 of 20th March 1897, on the proceedings of the Agricultural Conferences of 1893 and of 1895-96. It is arranged under the following heads:—

Chapter I.—Prefatory.

Chapter II.—Land Records Establishment.

Chapter III.—Utilization of Land Records.

Chapter IV.—Scientific and National Enquiry under Imperial Control.

Chapter V.—Scientific and Local Enquiry under Provincial Control.

Chapter VI.—Agricultural Education.

Chapter VII.—Publication of Agricultural Information.

Chapter VIII.—Final.

CHAPTER I.

PREFATORY.

3. Mr. E. H. Hearn was in charge of the office from 1st November 1897 to 14th January 1898, when Mr. J. W. P. Muir-Mackenzie resumed charge on his return from special duty. From him Mr. A. B. Fforde took charge of the office on the 13th June 1898 and continued to hold it till the end of the year.

4. In the beginning of the year from 12th November to 28th December 1897, Mr. Hearn toured in the Thána and Broach districts to supervise survey operations. At Broach he examined the Central Record Office. At the end of December he visited the Bhor State to announce the Jamábandi. Mr. Muir-Mackenzie toured in the Súrat, Thána and Násik districts. In the last named district, besides supervision of survey work, he examined the paper work of Circle Inspectors. He also attended the Famine Commission at Bombay to give evidence.

5. Mr. Mollison, the Deputy Director, as usual supervised the work on the Poona and Surat Farms, paying several visits to the latter farm. Besides his ordinary work he inspected certain lands in the neighbourhood of Pálghar in the Máhim taluka with a view to ascertain their agricultural value. At the request of the Political Agent, Káthiáwár, he visited Rájkot to inspect the State dairy and paddock, and to advise as to their proper equipment. He also visited Junágad and Verával to study the breeds of the indigenous cattle of Káthiáwár. He visited the Nadiád Farm and studied the breeds of the Charotar cattle. He gave the prescribed course of instruction in Agriculture at the College of Science, Poona, and was appointed an Examiner in the oral and practical examinations in Agriculture held at Madras. He served on the Committee appointed by Government to frame a scheme for conducting experiments in connection with rinderpest. He also acted as a judge at the Ahmadnagar Horse and Cattle Show. He was on privilege leave from 6th May to 21st June.

CHAPTER II.

LAND RECORDS ESTABLISHMENT.

6. No extension of the Land Records staff took place during the year. As in the previous year the staff was at work in the whole of the Central and Southern Divisions except three talukas of Kolába and in the districts of Ahmadabad and Kaira in the Northern Division. The Survey records of two talukas in each of the districts of Khándesh and Násik were handed over to the Collector's charge on the introduction of revision settlements.

7. Survey classes were held for the first time at the selected centres of Poona and Násik in the Central Division. For the four Kánarese districts, Belgaum has been fixed as the central station, but owing to prevalence of the plague there the class was removed to Bijápur and a class was also opened at Kárwár for the candidates in the Kánara district. In the Northern Division there were no candidates.

8. The Circle Inspectors in two talukas of the Ratnágiri district performed their regular duties, while those of the other talukas were employed during the rains on the duties detailed in the last report. In the fair season two Circle Inspectors worked at the District Survey Office in preparing *bothchats* for the villages of Kelshi and Dápoli, and the remaining seventeen Inspectors disposed of measurement work in November and December, and from January to May did the special boundary-mark inspection under No. 104 of the rules under the Land Revenue Code. This was completed except in three villages in Devgad taluka and was in progress in Mandangad Petha. The question of making reductions in this staff is under consideration.

One of the Circle Inspectors in Ahmadabad, who was employed last year on measurement work in the railway suburb at Ahmadabad, continued to do the same work during the year.

9. The inspection work of the Land Record staff in the previous year was greatly interfered with by the prevalence of famine, and the work performed during the year under report has therefore been compared with that of the year 1895-96 in the following tables. Mr. Lushington observes that for want of proper supervision the working of the newly appointed Circle Inspectors in Kolába was defective and he has therefore little faith in the statistics furnished for the district. He, however, hopes that the recent appointment of an experienced District Inspector will ensure considerable improvement in the next year.

10. *Crop, Waste and Boundary-mark Inspection.*—The average inspection work performed by Circle Inspectors is exhibited in the following table:—

District.	AVERAGE BY EACH INSPECTOR.						Average Area of occupied Numbers in Acres.		Average Area of inspected Numbers in Acres.	
	Average of days of actual inspection.		Number of Villages inspected.		Number of Survey Numbers (occupied and waste) inspected per diem.					
	1897-98.	1895-96.	1897-98.	1895-96.	1897-98.	1895-96.	1897-98.	1895-96.	1897-98.	1895-96.
1	2	3	4	5	6	7	8	9	10	11
Dhárwár ...	60	60	42	36	9	9	12	11	10	11
Bijápur ...	62	61	38	38	8	7	16	16	16	15
Belgaum ...	25	60	19	37	9	9	11	10	10	10
Kánara ...	52	63	48	50	9	8	2	2	2	2
Ratnágiri ...	49	52	9	9	4	4	8	8	7	7
Kolába ...	60	...	65	...	8	...	5	...	5	...
Khándesh ...	67	75	48	53	8	8	10	10	9	10
Násik ...	56	62	34	33	8	8	10	10	9	9
Ahmadnagar ...	72	72	37	36	8	8	13	12	11	12
Poona ...	65	67	43	40	7	7	10	11	10	8
Sholápur ...	56	63	35	33	6	5	20	20	18	20
Sátára ...	60	60	28	29	8	8	8	7	7	6
Ahmadabad ...	71	71	37	34	15	15	4	4	4	4
Kaira ...	69	...	38	...	13	...	2	...	1.3	...

In none of the districts was the standard of 80 working days reached. The question whether this standard is attainable is still under consideration. It is reported that the same standard will not apply uniformly to all the districts, but that it will vary according to local conditions. In two districts only were more than 70 days devoted to the inspection.

As compared with the year 1895-96 there was a falling off in seven districts and markedly in Belgaum and Kánara. Early in December the Circle Inspectors in Belgaum were employed on plague duty. They visited at least two villages a day, examining the birth and death registers, making local enquiries and reporting whether any sign of plague could be found. In Kánara the inspection period was curtailed by the allotment of one month (November) exclusively to check census under the orders of the Commissioner, Southern Division. Plague duty interfered with the inspection work more or less in Poona, Khándesh, Sátára and Kolába. In Sholápur and Kolába the work of distributing doles took up part of the Circle Inspectors' time. Urgent measurement work also had to take precedence of ordinary inspection work. The latter was also hindered by the absence of village officers when the Circle Inspectors visited the villages. Their presence is of course essential and it is hoped that the circular orders recently issued directing Circle Inspectors to give six days' previous notice to village officers and to obtain their acknowledgment will check the village officers' tendency to avoid the test. In Ahmadabad, casual leave seems to have been freely given. The rule that in the inspection season leave should be sparingly given should be strictly followed. In some districts the rule that transfers of Circle Inspectors should be made before commencement of the travelling season was not carefully observed. The number of villages inspected showed an improvement in six districts.

The daily task of work was generally satisfactory and shows an improvement in Bijápur, Kánara and Sholápur. The tendency of selecting small-sized numbers for inspection is noticeable in Dhárwár, Ahmadnagar and Sholápur. Possibly, however, the larger numbers may have been inspected in past years.

11. The subjoined table shows the general results of the inspection :—

District.	Villages inspected.		CROP INSPECTION.		WASTE INSPECTION.		BOUNDARY-MARK INSPECTION.	
			Occupied Lands.		Unoccupied Lands.		Percentage of Survey Numbers of which marks examined on total number of Survey Numbers.	
			Percentage inspected on Survey Numbers.		Percentage inspected on Survey Numbers.			
			1897-98.	1895-96.	1897-98.	1895-96.	1897-98.	1895-96.
1	2	3	4	5	6	7	8	9
Dhárwár	91	79	7	8	25	29	8.4	8.8
Bijápur	81	91	8	6	30	31	6.5	6.7
Belgaum	49	97	6	7	20	27	6.3	7.9
Kánara	79	84	8	8	15	15	8.9	9.1
Ratnágiri	100	97	9	9	55	28	9.1	9.5
Kolába... ..	77	...	6	...	75	...	8.8	...
Khándesh	85	95	7	7	22	23	8.1	8.8
Násik	75	79	7	8	29	27	8.1	8.8
Ahmadnagar	89	97	8	7	31	31	8.2	7.8
Poona	98	91	5	6	37	40	5.1	5.9
Sholápur	99	93	6	5	42	42	6.1	6.0
Sátára	92	95	7	7	41	38	7.1	7.1
Ahmadabad	99	98	5	6	12	15	7.1	7.1
Kaira	95	...	3	...	...	...	...	...

In Ratnágiri all the villages were visited, and in six other districts the percentage of inspected villages was above 90. As compared with 1895-96 the percentage was lower in seven districts, while in others it shows improvement, especially in Poona and Sholápur. The reasons given above account for the decrease. In the hilly circles in the Sátára and Násik districts the inspection period has been reduced to three and two months respectively. The extent of crop inspection was generally sufficient except in Kaira. The rule requiring inspection of all the villages in a circle by reduction of percentage test, seems to have been carried out in Poona, Sholápur and Ahmadabad, and every endeavour should be made to follow it strictly in other districts. Owing to plague duty in the latter part of the season it could not be brought into effect in Khándesh and Belgaum.

12. The percentage of waste inspection was nearly up to the standard or above it in seven districts and, as compared with the year 1895-96, shows improvement in three districts. The extent can be taken as generally sufficient except in Ahmadabad and Kaira. No explanation has been received from Ahmadabad. As regards Kaira, the District Inspector explains that in the three southern talukas there are few cultivable waste numbers and that the uncultivable numbers, mostly tanks, lying scattered at long distances, Circle Inspectors try to avoid their inspection. The high percentage in Ratnágiri is attributed to the absence of village officers at the time of test and the consequent extended inspection of waste numbers under Rule 14, Chapter II, of the Circle Inspector's Rules.

In Kolába the misunderstanding on the part of Circle Inspectors as to the proportion of numbers to be inspected (noticed in the last year's report) was apparently not corrected. Orders have been issued directing the Circle Inspectors' attention to the rules on the subject. Mr. Cappel, Collector of Dhárwár, explains that the probable cause of the low percentage in that district lies in the selection of numbers near the village of smaller area during the first few years of the inspection cycle rendering inspection in later years of distant numbers perhaps of larger area more difficult to accomplish.

13. The number of encroachments detected during the year as compared with the two preceding years is shown in the marginal table. With the cessation of famine the cases rose in the Central and Southern Divisions, more than half in the latter division being returned by Kolába alone. In Ahmadabad there is a steady decrease. In the newly equipped districts of Kolába and Kaira the number of encroachment cases is naturally large for the first few years. It will be seen

Division.	1897-98.	1896-97.	1895-96.
Southern Division ...	854	819	427
Central Division ..	870	449	1,268
Northern Division—			
Ahmadabad ...	90	161	198
Kaira ...	635	481	...

from the marginal table that as regards the districts where there are stipendiary village accountants the percentage of cases detected by them ranged between 73 in Kolába and 34 in Kaira. The

District.	Percentage of encroachments detected by village officers on the total number.		District.	Percentage of encroachments detected by village officers on the total number.	
	1897-98.	1895-96.		1897-98.	1895-96.
Dhárwár ...	21	15	Násik ...	19	5
Bijápur ...	10	4	Ahmadnagar ...	6	5
Belgaum ...	6	18	Poona ...	3	17
Katnara ...	62	49	Sholápur ...	11	8
Ratnágiri ...	43	87	Sátára ...	15	18
Kolába ...	73	...	Ahmadabad ...	63	48
Khándesh ...	19	24	Kaira ...	34	...

falling off in Kolába is attributed to the Circle Inspectors' inspection having begun a month earlier than the date prescribed for the village inspection. Among the districts having the hereditary village staff, the percentage did not exceed 21. Steady improvement is perceptible in Dhárwár, while there has been a gradual deterioration in Poona and Khándesh. As compared with the year 1895-96, there is improvement in eight districts. It is hoped that the scheme of training village

accountants in survey work, which is under the consideration of Government, will make the improvement more permanent. The decrease in Belgaum and Khándesh is probably due to prevalence of plague there. The District Inspectors of Kánara and Sholápur have personally detected some encroachment cases. Delay in disposal of encroachment cases at the hands of Mámlatdárs was a general complaint. It seems that cases reported by Circle Inspectors are sent by Mámlatdárs for enquiry to village officers with whom they remain for an inordinate time. With a view to expedite the disposal of the cases in some districts a quarterly return is sent by Circle Inspectors, showing cases reported by them, but remaining undisposed of with Mámlatdárs. This measure has not been fully successful, and the matter is still under consideration.

In Kolába all the cases detected related to unauthorised cultivation. In Kánara, Poona and Ratnágiri the percentage of cases of unauthorised cultivation on the total was, respectively, 70, 65 and 57, while in Dhárwár, Bijápur and Belgaum it was below 20. No details are reported by other districts. One encroachment of 30 years standing and one of 25 years standing were respectively detected in Khándesh and Ahmadnagar districts. The seven cases detected in Sholápur related to village site, but the area was trivial. No such cases were discovered in other districts of the Central Division.

14. The quality of the village officers' work as indicated in the marginal

Name of District.	Entries found correct (percentage).		Name of District.	Entries found correct (percentage).	
	1897-98.	1895-96.		1897-98.	1895-96.
Dhárwár	59	56	Násik	75	83
Bijápur	37	39	Ahmadnagar	63	64
Belgaum	66	62	Poona	78	79
Kánara	76	75	Sholápur	54	50
Ratnágiri	63	47	Sátára	78	75
Kolába	91	...	Ahmadabad... ..	91	91
Khándesh	72	74	Kaira	79	...

table shows improvement over 1895-96 in six districts. The number of districts showing more than 75 per cent. of correct entries has also steadily increased. Steady improvement has

been maintained for the last three years in Dhárwár, Ratnágiri, Poona, Sátára and Ahmadabad. In other districts it is variable. Cases of unpunctuality on the part of village officers in commencing inspection which led to the Circle Inspectors doing it in their company, were as usual noticeable in most of the districts and there is little if any improvement in this respect. This unpunctuality was marked in Násik, Sátára, Dhárwár, Belgaum and Bijápur. In Sátára the absence of village officers at the Circle Inspectors' test was noticed to be wilful. The defective registration of fallow in Kaira noticed in the last report improved during the year.

15. *Boundary-mark Inspection.*—The Circle Inspectors' inspection is con-

District.	Marks found in disrepair (percentage).				District.	Marks found in disrepair (percentage).			
	Omitted.		Wrongly shown as in repair.			Omitted.		Wrongly shown as in repair.	
	1897-98.	1895-96.	1897-98.	1895-96.		1897-98.	1895-96.	1897-98.	1895-96.
Dhárwár	60	49	25	38	Násik	3	4	25	14
Bijápur	40	37	26	39	Ahmadnagar	25	22	27	22
Belgaum	50	26	19	35	Poona	29	17	14	22
Kánara	39	53	18	2	Sholápur	18	18	35	37
Ratnágiri	39	40	19	22	Sátára	17	21	27	22
Kolába	21	...	...	...	Ahmadabad	8	3	14	19
Khándesh	19	17	19	30	Kaira	5	...	9	...

finned to the marks of the survey numbers of which they make the crop or waste inspection. The quantity of numbers inspected seems sufficient and compares not unfavourably

with that of 1895-96 (*vide* columns 8 and 9 of the statement in paragraph 11 above). The marginal table indicates little improvement in the village officers' work.

The state of boundary-marks is generally unsatisfactory, and it is believed that no improvement is likely unless Circle Inspectors are entrusted with the duty of taking steps to repair them. Village officers seem to think that the duty of inspecting boundary-marks and repairing those in disrepair has been

transferred to the Circle Inspectors. This subject has been fully dwelt upon in the annual reports for 1894-95 and 1895-96. The question of reducing the number of boundary-marks for inspection is still under consideration.

16. The following table embodies the result of the District Inspectors' test of Circle Inspectors' work :—

District.	Number of Circles visited per cent.	Percentage on Villages Inspected by Circle Inspectors.	CROP INSPECTION.		WASTE INSPECTION.		BOUNDARY-MARK INSPECTION.	
			Percentage on Circle Inspectors' work.	Quality of work found.	Percentage on Circle Inspectors' work.	Quality of work found.	Percentage on Circle Inspectors' work.	Quality of work found.
1	2	3	4	5	6	7	8	9
Dhárwár ...	89.3	2.8	1.4	85.1	17	100	1.5	97.6
Bijápur ...	91.7	2.1	2.1	82	1.5	100	2	91.8
Belgaum ...	70.8	6.0	4.1	68.4	1.7	100	3.3	94.6
Kánara...	95.7	3.3	1.5	83.2	1.4	89.3	1.4	96.4
Ratnágiri ...	100	40.1	8.0	89.2	1.9	50	7.8	99.4
Kolába...	81.8	5.9	2.9	100	...	...	1.2	57.4
Khándesh ...	97.9	4.8	2	93	1	98	2	99
Násik ...	62.8	3.0	1	84	1	92	1	94
Ahmadnagar ...	27.2	1.8	1	95	1	100	1	99
Poona ...	82.6	5.3	3	97	4	100	3	98
Sholápur ...	100	6.4	2	85	3	100	2	98
Sátára ...	71.8	5.3	3	90	4	91	3	97
Ahmadabad ...	100	17	7.1	98	5.2	100	6.4	99
Kaira ...	100	12.3	7	96	5.6	97	7.0	95.6

In four districts against six in 1895-96 all the circles were visited. The Sátára, Belgaum and Kolába District Inspectors' tour was interrupted on account of the plague. The restrictions imposed on travelling by rail and steamboats hampered his work in Kánara and under the orders of the Collector he paid more attention to testing measurement and partition work. In other districts delay in filling up temporary vacancies among the district Inspectorships is accountable for some decrease of work. The Commissioners have now agreed that District Inspectors qualified to be Mámlatdárs should not be appointed to acting vacancies but should only be relieved for permanent promotion. The extent of the test is generally sufficient and except in four districts compares not unfavourably with that in 1895-96. The high percentage of inspected villages in Ratnágiri is as usual due to the fact that the test was confined to two talukas only. The test shows the Circle Inspectors' work to be generally satisfactory, though as regards crop inspection there is room for improvement. In two or three districts careless work was punished by fine or reversion to the Revenue Department.

17. *The General Duty Inspectors.*—In all the districts the General Duty Inspector was fully employed on original or test measurement and classification work. In Kolába he had no time for test work. In Kánara and Kaira he enjoyed a month's leave, and in Poona, Ahmadnagar, Sholápur and Ahmadabad he held temporary charge of the District Inspector's post in addition to his own duties. The Ahmadabad Inspector was also employed for a month and a half in preparing copies of plans of the Ahmadabad City and suburbs, required by the Collector in connection with the extension of the city survey boundaries. In Kaira the General Duty Inspector worked for a Circle Inspector on leave for a month. In Sholápur, under the orders of the Collector, he was occupied with measuring B class land for the Kurduwádi-Sángola Railway section and preparing a compensation statement for the same. In Belgaum he assisted the District Inspector in determining what the dry-crop assessment of certain survey numbers would be, provided the water advantages were left out of consideration. In Ratnágiri the

General Duty Inspector prepared classification statements of certain unassessed pieces of land given out for cultivation in the village of Camp Dápolj. He also examined the *Sar Nakúsha* of that village and corrected the mistakes by actual verification in the field and prepared the rate statements and kacha sud. In the rains the General Duty Inspector worked as usual in the District Survey Office at scrutinizing corrections in survey records. In Sholápur he eliminated redundant boundary marks from copies of village maps prepared for printing at the photo office. In Khándesh he was employed in giving instructions in measuring to the táluka kárkuns intending to appear for the sub-service departmental examination.

18. *Check of the Village Census.*—The usual table showing the extent of the test is appended :—

District.	Circles visited per cent.		Percentage of inspected villages on total number allotted for test.		Percentage of entries found correct on total checked.		
	1897-98.	1895-96.	1897-98.	1895-96.	1897-98.	1896-97.	1895-96.
Dhárwár	100	100	93	99	87	86	84
Bijápur	92	100	93	86	83	...	81
Belgaum	78	96	65	81	80	85	85
Kánara... ..	100	100	97	89	66	80	89
Ratnágiri	100	100	100	60	73	78	60
Kolába... ..	55	...	...	...	97	90	...
Khándesh	96	98	96	...	88	90	86
Násik	83	90	...	75	80	65	83
Ahmadnagar	100	100	91	88	80	76	78
Poona	100	100	96	87	76	78	76
Sholápur	100	100	...	93	85	85	81
Sátára	100	100	98	92	90	85	84
Ahmadabad	100	100	...	...	95	85	90
Kaira	100	...	99	...	78	...	...

The check census is confined to agricultural stock and is taken annually in July, except in districts of heavy rainfall, where the registers are tested concurrently with crop inspection. In Kánara, under the orders of the Commissioner, the month of November was wholly allotted to this test. The test was extended to all the circles in 9 districts. In two circles each of Bijápur and Belgaum no test was taken owing to employment of Circle Inspectors on plague duty. Detention at the táluka head-quarters for compilation work prevented test work in four circles of Násik. In one district only all the villages allotted for test were visited. In others the usual causes, such as detention at the taluka head-quarters for compilation work, excessive rain, absence of village officers and illness of the Inspectors, reduced the percentage of inspected villages, though, as compared with the year 1895-96, it shows improvement in six districts.

In Sholápur, under the orders of the Collector, the census of human beings was taken in two tálukas with a view to ascertain the number of deaths due to the plague. The quality of village officers' work was generally fair except in Kánara. The low percentage of correct entries in the below-ghát districts is not creditable to the stipendiary village accountants there. In several villages in Kaira the census register was noticed to have been filled in at the village *chávdi* and not by the house-to-house visitation. The District Inspector's test was sufficient except in two districts. In Kolába the District Inspector was occupied with plague duty, and the Ahmadnagar District Inspector was ordered to watch a criminal case of assault against a Circle Inspector. The test showed the Circle Inspectors' work to be generally satisfactory.

19. *Vital Statistics.*—The Central Division continued to show steady improvement on the part of village officers though the omissions were still numer-

was small but as compared with the previous year the village officers' work, if

				Southern Division.	Central Division.	Northern Division.
Births omitted	...	...	1897-98	172	407	94
			1896-97	77	618	57
			1895-96	231	930	83
Deaths omitted	...	...	1897-98	87	336	41
			1896-97	44	875	22
			1895-96	75	435	15
<i>Causes of death.</i>						
(a) Omitted	...	...	1897-98	30	68	10
			1896-97	10	41	14
			1895-96	19	81	...
(b) Wrongly shown	...	...	1897-98	63	316	4
			1896-97	31	334	...
			1895-96	50	185	1

any thing, deteriorated during the year. The large number of omissions under deaths and causes of death wrongly shown, is probably due to the concealment of plague cases. In Kaira the omissions were mostly among the still-born children or

those who died immediately after birth. All errors discovered were immediately reported to the Deputy Sanitary Commissioners.

20. *Maintenance of Boundary-marks.*—The complete boundary-mark inspection was carried on in the prescribed months (March to May). The repair village by village of boundary-marks, for the maintenance of which Government is wholly or partly responsible, was effected at the same time. The following table exhibits the progress made:—

District.	Gross number of Government villages.	Number of villages completed at the beginning of 1897-98.	Number of villages completed in 1897-98.	Total.	Number of seasons including the current one (1897-98).	Average Number of villages inspected per annum.	Years required to complete the district.
<i>Southern Division.</i>							
Dhárwár	1,268	652	42	694	10	69	18
Bijápur	1,012	661	17	678	9	75	13
Belgaum	913	280	...	280	6	47	19
Kánara	1,417	328	93	421	6	70	20
Ratnágiri	65	46	8	54	4	13	5
Kolába	921	...	223	223	1	223	4
<i>Central Division.</i>							
Khándesh	2,706	1,635	91	1,726	5	345	8
Násik	1,490	467	48	515	5	103	14
Ahmadnagar	1,227	409	115	524	5	105	12
Poona	1,004	256	73	329	5	66	15
Sholápur	665	183	76	259	5	52	13
Sátára	962	613	77	690	5	138	7
<i>Northern Division.</i>							
Ahmadabad	446	71	28	99	4	25	18
Kaira	526	28	36	64	2	32	16

The decrease in Bijápur in the number of completed villages at the beginning of the current season is due to correction of last year's figures. In Ratnágiri in addition to 8 new villages entered in the return Circle Inspectors examined 10 villages a second time. The correctness of the figures in Kolába seems doubtful owing to misunderstanding on the part of the Circle Inspectors. In some districts incompleting villages seem to have been wrongly included in the statement. It is intended that the inspection of all the villages should be completed once in 15 years and this can be attained in all the districts except four. As compared with the year 1895-96 the progress of inspection work improved in Kánara, Ahmadnagar, Poona and Sholápur. Employment of Circle Inspectors on

plague duty stopped the work in Belgaum and partly interfered with it in Bijapur, Kolába, Násik and Khándesh. Disposal of measurement work which owing to the famine of the last year had accumulated in some districts also reduced inspection. In Khándesh this work included sub-division of large numbers and measuring and classing land damaged by the floods of the Girna and Titur rivers. In Násik the Circle Inspectors of two tálukas in which the revision survey had not been introduced were employed on *pot páhání* work, and in Násik, Khándesh and Kolába some of the Circle Inspectors were lent to the Survey Department to help in measuring and classification work. The Circle Inspectors of four tálukas in Ahmadnagar collected famine information for a month.

The days actually devoted to this inspection varied from 58 in Kolába to 26 in Khándesh. The daily standard (150 marks in the first and 75 in the second inspection) was reached in none of the districts. In the first inspection the number of marks examined ranged between 137 in Dhárwár and 41 in Ratnágiri. In the second inspection, Ahmadabad maintained the first rank with 56 marks and Ratnágiri stood last with 14 marks. In Kaira, where survey numbers are generally bounded by hedges, and in Ratnágiri, where boundary marks are reported to be few and far between, it is found difficult to attain the standard. Of the marks examined, 62 per cent. in Ahmadnagar to 18 in Kolába were found out of repair. Of these, the number of marks re-examined by Circle Inspectors ranged between 81 per cent. in Násik and 99 in Khándesh except in Kolába, where the percentage stood at 40. Except in four districts the percentage of marks repaired by the rayats did not exceed 82 and in Kánara, Kolába and Kaira it was between 48 and 58 only. In most of the districts the second inspection work was in arrear. The work of repair was hampered by want of funds as in previous years. The orders cancelling individual notices and allowing repairs to be made at Government cost at the first inspection, were not fully carried out owing to misunderstanding on the part of Circle Inspectors in the Central Division, which was subsequently corrected. The arrangements made in concert with the Commissioners and the Accountant General, referred to in paragraph 16 of the report for 1895-96, to prevent tardiness in supply of funds, seem to have afforded little help. The difficulty can only be removed if the present account rules are modified so as to allow an immediate recoupment of the Circle Inspector's bills presented at the Táluka Office, and with this view the matter has been placed before the Commissioner, Central Division.

District.	Encroachments.	Marks fixed by measurement.	District.	Encroachments.	Marks fixed by measurement.
Dhárwár	67	1,819	Násik	248	32
Bijapur	18	435	Ahmadnagar	18	1,181
Belgaum ... ..	...	...	Poona	76	425
Kánara	72	89	Sholapur	51	25
Ratnágiri	73	428	Sátára	439	317
Kolába	24	2,447	Ahmadabad	27	...
Khándesh	35	...	Kaira	509	...

The work on account of detention of encroachments and fixing the sites of missing marks, was a little less in five districts than in 1895-96. In one district it increased.

MEASUREMENT AND CLASSING WORK PERFORMED BY CIRCLE INSPECTORS.

21. The usual table is given below :—

Classes of Cases.	SOUTHERN DIVISION.				CENTRAL DIVISION.				NORTHERN DIVISION.			
	Arrears on 31st July 1897.	New cases received.	Cases disposed of.	Balance on 31st July 1898.	Arrears on 31st July 1897.	New cases received.	Cases disposed of.	Balance on 31st July 1898.	Arrears on 31st July 1897.	New cases received.	Cases disposed of.	Balance on 31st July 1898.
1. Partition of land under Court's decree	38	81	97	25	92	101	122	71	7	13	19	1.
2. Sub-division on applications of occupants duly sanctioned	104	124	119	109	81	61	91	54	33	69	70	22.
3. Disputes necessitating measurement of fields ...	60	65	65	60	74	51	79	46	115	282	287	110

Classes of Cases.	SOUTHERN DIVISION.				CENTRAL DIVISION.				NORTHERN DIVISION.			
	Arrears on 31st July 1897.	New cases received.	Cases disposed of.	Balance on 31st July 1898.	Arrears on 31st July 1897.	New cases received.	Cases disposed of.	Balance on 31st July 1898.	Arrears on 31st July 1897.	New cases received.	Cases disposed of.	Balance on 31st July 1898.
4. Lites requiring fixing of boundary marks by field-books	426	353	325	454	1,026	531	826	731	116	138	156	98
5. Encroachments	254	373	369	238	566	549	724	391	142	339	352	129
6. Measurement of alterations caused by alluvion and diluvion	101	136	106	131	67	47	59	55	9	31	32	8
7. Measurement of land required for public purposes—												
(a) Burial ground... ..	60	65	74	51	10	13	21	2	4	16	16	4
(b) Tanks	3	17	13	7	2	7	7	2	4	7	10	1
(c) Roads	49	45	45	49	45	44	60	29	10	16	21	5
(d) Dharmshālas and other public buildings	16	54	48	22	25	31	34	22	42	51	69	24
8. Measurement of land for building sites	118	185	204	99	110	121	153	78	102	276	272	106
9. Reclassification of survey numbers	1	9	8	2	17	11	15	13	6	7	9	4
10. Miscellaneous	549	1,069	984	634	605	1,129	1,345	389	144	486	475	155
Total	1,759	2,579	2,457	1,681	2,720	2,699	3,536	1,883	734	1,721	1,788	667

The want of tally between the arrears shown in the present return and the closing balance of the last year is still noticeable in the Central Division. It is confined to the Khândesh district in classes 5 and 10, the decrease being due partly to correction of mistakes in the last return and partly to exclusion from the return of the cases not requiring actual measurement. The new cases received during the year fell below both the preceding years in the Central and Southern Divisions, and below the last year in the Northern Division. In the Central Division the new cases were nearly one-half of those received in 1895-96, while the decrease in the Southern Division and in Ahmadabad amounted respectively to 15 and 3 per cent. The decrease in the Southern Division and Ahmadabad was more than counterbalanced by the increase in the non-measurement cases prescribed by the rules. As compared with the last year new cases show a rise in the Kánara, Kolába, Poona and Kaira districts only. Except in six districts, the progress of disposal was slow owing probably to plague, famine enquiry and extra measurement work done for the Survey Department. In the Central Division more attention was paid in the year to the disposal of cases in important classes. The arrears decreased in the Central Division and Northern Division, but probably fewer new cases were received during the year. In Sholápur, the temporary establishment entertained under Government Resolution No. 7981, dated 3rd November 1897, Revenue Department, disposed of most of the old standing cases. In three talukas of this district, which are now ripe for the second revision settlement, measuring work has become difficult owing to the disappearance of most of the boundary marks.

District.	Percentage of District Inspectors' test.	Percentage of General Duty Inspectors' test.
Dhárwár	3.6	1
Bijápur... ..	9	2
Belgaum	4.7	..
Kánara	3.2	..
Ratnágiri	2.1	..
Kolába	6	..
Khândesh	19	7
Násik	8.5	3.4
Ahmadnagar	7.2	24
Poona	16.6	8.8
Sholápur	7.2	7.9
Sátara	6.2	27.5
Ahmadabad	2.5	31.3
Kaira	5.3	..

The marginal table shows the extent of test by the District and General Duty Inspectors. Except in two districts the District Inspector's test was generally small, especially in the Southern Division. The reasons given for the District Inspector's short work in crop inspection apply also in the present case. In Bijápur, the District Inspector was too inexperienced to take an independent test. In Ahmadabad the smallness of the District Inspector's test was due to his employment on demarcation of certain Government land and settlement of a boundary dispute. The General Duty Inspector had little or no time for test work in some districts, being employed on original measurement work, while in others he was in charge of the District Inspector's work. The Circle Inspectors' work was generally fair.

District.	Amount.	District.	Amount.
	Rs.		Rs.
Dhárwár ...	333	Násik ...	75
Bijápur ...	37	Ahmadnagar ...	227
Belgaum ...	230	Poona ...	360
Kanara ...	623	Sholápur ...	190
Ratnágiri ...	428	Sátára ...	484
Kolába ...	39	Ahmadabad ...	41
Khándesh ...	44	Kaira ...	3

The amount received for work done for private individuals was about the same as, or rather less than, the receipts of the two preceding years in the Central and Southern Divisions, except in Poona, where it exceeded the last year's amount by 43 per cent.

The cases of utilization of Circle Inspectors for work not prescribed by the rules show a satisfactory decrease in the Southern and Central Divisions. The cases showed a slight decrease in Ahmadabad, while they rose from 37 to 123 in Kaira. The Collector of Ahmadabad is making an enquiry into them.

Division.	1897-98.	1898-97.	1895-96.
Southern Division ...	20	206	8
Central do. ...	22	303	64
Northern do. ...	266	176	128
Total ...	308	685	200

DISTRICT SURVEY OFFICE.

22. The subjoined table shows the extent of the work usually done at the district survey offices :—

District.	NUMBER OF CASES RECEIVED REQUIRING CORRECTION IN SURVEY PAPERS.			NUMBER OF ÁKÁRBANDS.			Number of Maps and Field Books corrected.	Number of extracts from Field Books sent to Circle Inspectors.	Number of extracts from Survey Books supplied to Revenue Officers and Petitioners.	Number of Maps supplied to Village and other officers and Petitioners.
	Received during the year, including arrears of past years.	Disposed of during the year.	Arrears on 1st August.	Received during the year, including arrears of past years.	Corrected during the year.	Remaining to be corrected on 1st August.				
1	2	3	4	5	6	7	8	9	10	11
Dhárwár ...	88	88	...	187	165	22	1,029	1,128	300	221
Bijápur ...	25	21	4	44	44	...	147	386	12	145
Belgaum ...	80	80	...	32	32	...	225	1,204	23	524
Kánara ...	171	170	1	186	160	26	584	674	2	4,595
Ratnágiri ...	604	367	237	354	182	172	168	65	88	130
Kolába ...	361	82	279	361	82	279	52	...	5	57
Khándesh ...	170	170	...	52	52	...	370	41	113	150
Násik ...	70	59	11	106	87	19	53	336	1	112
Ahmadnagar ...	62	52	10	179	144	35	287	1,091	47	124
Poona ...	256	252	4	283	279	4	1,046	416	2,228	369
Sholápur ...	22	20	2	18	16	2	146	116	136	39
Sátára ...	150	150	...	94	94	...	720	276	164	1,274
Ahmadabad ...	1,354	1,156	198	207	170	37	416	925	98	686
Kaira ...	1,099	940	159	213	196	17	505	83	24	726

Except in four or five districts the ákárband correction work was generally less. The disposal of the work was satisfactory except in Ratnágiri and Kolába. In the former district the services of the temporary establishment were dispensed with in April last. The absence of the head-quarter Assistant on leave and the inexperience of the Record-keeper who held charge also contributed to check the progress of correction work. In Kolába the work received during the year was disposed of, and the arrears represent the cases handed over by the Survey Department along with the survey records. Additional establishment was sanctioned by Government, but for want of trained hands it could not be entertained. In Belgaum the district survey office undertook the special work of

comparing the railway schedules with the survey papers respecting the land taken up for the Southern Marátha Railway. The large number of extracts from field books in Ahmadnagar were supplied to the special establishment of measurers engaged to measure land occupied by relief works. The increase in column 11 in Kánara, Belgaum and Sátára was probably due to the supply of copies of village maps to the Forest Department.

In the case of talukas in which the measurement and classification work at revision survey has been done on a partial system, it is essential that the original measurement and classification books should be kept with the revision survey records so as to make them complete. In districts where this had not been previously arranged, the work was undertaken during the year. At the Central Record Office at Broach the work of sorting the survey papers and re-arranging them according to villages, as has been done in the Central and Southern Divisions, was commenced.

Fee Receipts.—Except in Kolába, Khándesh and Kaira, the following table shows a decrease in receipts in all the districts, owing to less correction work. The falling off was large in Kánara, Ratnágiri, Sátára and Ahmadabad :—

District.	FEES ON ACCOUNT OF SUPPLY OF			Fees for making corrections in Survey Papers.	Total.
	Extracts from Survey Papers to applicants direct.	Extracts from Survey Papers to applicants through Circle Inspectors.	Village Maps.		
<i>Southern Division.</i>					
Dhárwár	1	58	28	8	95
Bijápur	15	4	4	...	23
Belgaum	4	36	23	11	74
Kánara ... ..	...	108	51	24	183
Ratnágiri	40	1	66	79	186
Kolába	3	...	65	22	90
Total	63	207	237	144	651
<i>Central Division.</i>					
Khándesh	16	3	88	2	109
Násik... ..	1	13	5	3	22
Ahmadnagar	2	35	8	12	57
Poona	27	28	67	15	137
Sholápur	1	19	20	4	44
Sátára ... ..	...	37	17	23	77
Total	47	135	205	59	446
<i>Northern Division.</i>					
Ahmadabad	20	...	24	2	46
Kaira	5	...	1	6	12
Total	25	...	25	8	58

SUPERINTENDENTS OF LAND RECORDS AND AGRICULTURE.

23. The training of village officers in survey is one of the principal duties appertaining to those posts. A scheme on the subject has been submitted for the consideration of Government.

24. The following table compares the extent of the tests taken by the Superintendents in the year with the preceding two years :—

District.	NUMBERS OF TALUKAS.		Total Number of Circles.	Daftars examined.	CROP, WASTE AND BOUNDARY-MARK INSPECTION.		COMPLETE BOUNDARY-MARK INSPECTION.		MEASURING.		Annual Census tested (number of entries).	Birth and Death Registers (number of tested entries).	Number of villages in which Statistical Returns were checked.
	Total.	Visited.			In how many Circles.	Survey Numbers tested.	In how many Circles.	Marks tested.	In how many Circles.	Survey Numbers tested.			
<i>Southern Division.</i>													
Dhārwār	11	1	29	3	1	5	...	...	...	...	...	...	...
Bijāpur	8	6	24	11	8	30	...	...	...	...	325	90	36
Belgaum	7	1	24	...	...	...	...	...	...	...	...	...	...
Kānara	9	...	23	...	...	...	...	...	...	...	...	...	...
Batnāgiri	2	...	6	...	...	...	...	...	...	...	...	...	...
Kolāba	7	...	11	...	...	...	...	...	...	...	...	...	...
Total ...	43	7	116	24	9	41	...	...	...	...	325	90	36
1896-97	43	23	116	40	11	68	1	17	9	22	160	61	63
1895-96	43	19	116	30	14	68	10	2,205	8	15	409	109	64
<i>Central Division.</i>													
Khāndesh	17	4	48	9	9	71	...	...	...	...	173	134	17
Nāsik	13	4	35	8	...	...	4	281	...	...	142	138	12
Ahmadnagar	11	3	33	8	4	37	3	412	...	...	80	49	9
Poona	8	2	23	3	3	32	...	...	...	...	89	77	13
Sholāpur	7	2	19	4	4	75	...	...	...	...	150	174	21
Sātāra	11	...	32	...	...	...	...	...	...	...	...	...	...
Total ...	66	15	190	26	20	215	7	608	4	7	683	672	72
1896-97	66	28	190	84	...	...	...	...	...	...	240	231	30
1895-96	66	19	190	47	23	80	6	676	13	30	244	333	61

Mr. Lushington was in charge of the Superintendent's office throughout the year. Mr. Young held charge in the fair season and owing to his transfer to the Deccan Survey as Deputy Superintendent, Rāo Bahādūr Ichhārām Bhagvāndās, Personal Assistant to the Director, acted from 1st July to the end of the year. Mr. Lushington did the ordinary test work for the first two months only. From January to the end of April he was on plague duty in the Bijāpur district and was only able to attend to the office routine work. This accounts for the short test in the Southern Division. In both the divisions the month of May was devoted to the preparation and supervision of the experimental record of rights in the manner desired in Government Resolution No. 2190, dated 26th March 1898, Revenue Department. This special work prevented Mr. Young from visiting the Sātāra district. In December and January Mr. Young made a detailed enquiry in Sholāpur and Ahmadnagar districts with regard to applications for reduction of patasthal rates. He also settled a long disputed forest boundary case in Kopargaon of Ahmadnagar district. Three district survey offices in the Southern Division and four in the Central Division were subjected to thorough examination. The working of the Bijāpur office was again inefficient. The careless Head-quarter Assistant has now been retired and there is reason to expect improvement at the next inspection. The Superintendent Southern Division also examined the field work of two and daftars of three District Inspectors. In the Central Division Mr. Young tested the measurement work of the newly appointed District Inspector of Khāndesh and found him competent to take test of Circle Inspectors' work without the help of the General Duty Inspector.

Along with the scrutiny of the work of the Land Record Establishment the Superintendents examined the village and taluka statistical forms which form the basis of the future settlement proposals. The results of this inspection were as usual communicated to the Collectors concerned, with the remarks of the Director, for such action as the Collectors considered necessary.

Mr. Young's remarks regarding the inspection work may be summarized thus:—Circle Inspector's work was generally satisfactory, the two Inspectors found very deficient in survey work being recommended to the Collectors for reversion to their posts in the Revenue Department. As regards village officers, the crop inspection was found to be generally unsatisfactory except in Khāndesh, their boundary-mark inspection and compilation of birth and death registers were somewhat better than crop inspection; the compilation of census registers was found defective in 19 out of 46 villages tested; the inspection of taluka forms

The extent of test cannot be said to be sufficient except perhaps in one or two districts, and is on the whole less than last year's.

In Kolába, owing to the pressure of work consequent on the plague, the Revenue officers had hardly time to check Circle Inspectors' work. The plague prevented the test by the Sub-Divisional officers in Belgaum and also interfered with the test in Dhárwár, Násik, Sátára and Khándesh. In Sholápur, owing to extra work on account of the famine then drawing to a close, the Revenue officers except the District Deputy Collector could devote no time to the regular test. The Sub-Divisional officers and Mámlatdárs in Kaira tested the Circle Inspectors' work, but either they did not furnish monthly returns in the prescribed form, or the information supplied was incomplete. The Collector has issued fresh instructions in the matter. In Khándesh one of the Mámlatdárs failed to keep a record. Remarks as to the quality of Circle Inspectors' work have been reported from three districts only, in two of which it was found to be generally satisfactory. The Collector of Dhárwár thinks that the extent of test was hardly sufficient for a well-grounded opinion of the character of the work. He observes that Mr. Anderson's remark, that he found the Circle Inspectors to be dilatory and often unintelligent, is true of the majority of Circle Inspectors, who, as a rule, dislike the out-door work and do their best to revert to the Revenue line.

The Collectors of Dhárwár and Poona took a personal test of the Circle Inspectors' work.

28. Extracts are given below from the remarks made by the Collectors on the working of the Inspecting Staff during the year in the administration reports or in memoranda forwarding the annual returns relating to the Circle Inspectors' work :—

- Dhárwár.*—"The District Inspector has performed his duties satisfactorily. The Circle Inspectors who have not done the proper amount of work have been called upon for an explanation and will be dealt with in due course."
- Belgaum.*—"The Circle Inspectors in all the tálukas were ordinarily employed on the duties prescribed by the rules until early in December, when they were ordered to visit at least two villages daily, examine the birth and death registers, make enquiries there, and report whether any sign of plague could be found. They continued doing this until 31st May 1898. From January 22nd to March 31st, the District Inspector was employed in travelling round the villages near Belgaum for the same purpose. On the whole his (General Duty Inspector's) time was fully and advantageously utilized during the year. The amount and quality of work done by Circle Inspectors is not considered by the District Inspector to be satisfactory, and I agree with him. The District Inspector, too, has done his best in carrying out the usual amount of test-work, though he was employed on plague duty for a time."
- Kánara.*—"The District Inspector Mr. Shesho Sirinivas has been on duty throughout the year and has done very well. He is a trustworthy and capable officer. He has visited all the tálukas and petas, and supervised the work of Circle Inspectors."
- Ratnágiri.*—"The District Inspector appears to have taken a sufficient number of tests of the Circle Inspectors' work and found it on the whole fairly satisfactory. There was no occasion to inflict punishments on any of them for remissness."
- Kolába.*—"Undersigned has no personal knowledge with regard to the work done by the Department during the year, and the Collectors of the year have left no note on the subject. Plague has distracted attention throughout the year and made check and inspection on the part of the Revenue Department impossible."
- Ahmadnagar.*—"There appears to be sufficient check over the work of Circle Inspectors and they have little opportunity of evading performance of their duties, as their time is so strictly regulated by rules. The Circle Inspectors of the tálukas of Párner, Shrigonda, Karjat and Ráhuri were deputed to collect special famine information from 24th April 1898 to the end of June. With one or two exceptions their work was fairly satisfactory."
- Poona.*—"The report shows a return to normal work after the famine year and the figures indicate in almost all points an improvement on the previous year. Mr. Padhye has maintained an efficient control over the whole staff and is an excellent District Agricultural Inspector."
- Sholápur.*—"It is satisfactory to notice that, except in the matter of compilation of the Circle Book, the work of Circle Inspectors, as a class, showed marked improvement during the year. The entertainment of two extra Circle Inspectors has resulted

Owing to the employment of Circle Inspectors on famine duties, the compilation work was at a stand-still in Ahmadnagar, Poona and Sholapur, and was retarded more or less in Bijapur, Belgaum, Khândesh, Násik and Sítára districts. In Sholapur, however, arrangements have been made as regards the Mádha táluka that the compilation shall be completed before the expiry of the current settlement in 1899-1900. Except in Kolába, the District Inspectors took a fair test of entries in the Circle Book. A small test was taken by the Sub-Divisional Officers in Bijapur, Dhárwár, Ratnágiri, Kánara, Sítára, Násik and Ahmadabad. In other districts of the Central Division and Southern Division, owing to famine or plague, no time could be spared for the test. No information has been received from Kaira as to the extent of the test taken by the Sub-Divisional Officers.

30. Detailed remarks on the progress of Circle Book work in the several districts are made below:—

Dhárwár.—In two tálukas, Navalgund and Gadag, no compilation was done during the year owing to the employment of Circle Inspectors on famine duty. In others the progress was satisfactory; only one year's entries are in arrears in three tálukas. Back entries have been mostly written up to date.

Bijapur.—Owing to famine very little progress was made during the year. In two tálukas the compilation of the rough Circle Book was brought up to date for 166 out of 261 villages and some progress was made in respect to back entries.

Belgaum.—The famine and plague stopped the compilation work in four tálukas. In the remaining three tálukas the compilation was brought up to date except that in one táluka a few columns for one year are left blank and in another the current entries for one year are in arrear.

Kánara.—The progress of the Circle Book compilation was fair. As regards the current entries, rough books have been written up to date for all the villages. The fair books are in arrears for one, two or three years in five tálukas. In Yellapur, fair books remained to be written up, as the books were not received in time from the Government Central Press. In 165 out of the 233 villages in the táluka, the revision survey was introduced as late as 1896-97, so that only a year's compilation was due. The back entries were brought to date except in 186 villages for which entries are in arrears for two or three years. Owing to the recent introduction of the revision survey no compilation is due for back years in two tálukas.

Ratnágiri.—The progress was not satisfactory. No work was done in the Málvan táluka, while in Vengurla two Circle Inspectors devoted 7 days to it. Current compilation has been brought to date for 9 and 6 villages as regards rough and village copies only. In Málvan the information for 1896-97 could not be compiled, owing to the táluka papers being absent at head-quarters, but the fair books in which the entries for 1895-96 were wanting might have been filled up.

Kolába.—The Circle Book compilation was commenced during the year. No work was done in the Pen táluka. In others the progress was slow. The test of entries in rough books by the Mámlatdárs was confined to five villages, which is unsatisfactory.

Khândesh.—Of the 12 tálukas in which the revision survey has been introduced the current entries have been written up to date in five tálukas. Famine stopped work altogether in three tálukas and interrupted it in the remaining four. Considering the difficulties the progress was fair. The compilation to be done for back years is small owing to the recent introduction of survey settlements and is up to date.

Násik.—The Circle Book has been introduced into nine tálukas. During the year, owing to famine, compilation work was only done in the two tálukas of Igatpuri and Peint. In the former the compilation is up to date and in the latter only a year's entries are in arrear.

Ahmadnagar, Poona and Sholapur.—Owing to famine duty no compilation work was undertaken. In Sholapur the plague also contributed to suspend the work.

Sítára.—Owing to the employment of Circle Inspectors on famine duties no progress was made during the year in compilation work in Válva, Jávli and part of Karád tálukas, but in other tálukas the compilation has been brought up to date. In peta Khândála of Wái táluka the compilation was made in February and March 1898 under the orders of the Sub-Divisional Officer without inconvenience to the regular work.

Ahmadabad.—The progress was fair in two tálukas, Daskroi and Viramgám, where the compilation has been brought up to date. In others it was slow, a year's entries only having been filled in.

Kaira.—The Circle Book compilation which was due for two or three years was brought up to date during the year. The work which was in arrear by the end of October 1897 was completed in July 1898 under the orders of the Collector.

COLLECTION OF REVENUE AND RENTAL IN PRECARIOUS TRACTS.

31. The following table compares the measures adopted in 1897-98 with those in the previous year :—

District.	Number of notices served.		Number of cases in which penalty was levied.		Number of cases of distrains of moveable property.		Number of cases of forfeiture of occupancies.		Remarks.
	1896-97.	1897-98.	1896-97.	1897-98.	1896-97.	1897-98.	1896-97.	1897-98.	
Khándesh ...	18,539	15,650	2	38	12	146	75	134	
Násik ...	10,617	7,160	32	9	9	25	32	86	
Ahmadnagar ...	17,529	15,897	...	10	...	40	2	8	
Poona ...	22,087	35,374	52	4	...	9	130	...	
Sátára ...	7,800	24,946	...	...	6	1	1	...	
Sholápur...	14,456	13,993	...	2	7	19	...	3	
Belgaum...	554	894	...	2	3	2	1	1	
Bijápur ...	3,148	8,917	...	2	9	99	...	...
Dhárwár...	4,008	2,312	10	3	5	4	7	11	
Kolába ...	12,628	10,288	...	21	140	35	6	4	
Ratnágiri ...	3,271	2,901	69	61	335	223	16	6	

The number of notices fell considerably except in the four districts of Poona, Sátára, Belgaum and Bijápur. The number of cases in which penalty was levied as well as of cases of forfeiture of occupancies also decreased, but those of distraint of moveable property increased. In Násik, the decrease in the number of notices is partly attributed to the Government orders that the village officers should exert their influence in recovering land revenue and thus reduce the necessity of issuing coercive processes. If this be correct, it would appear that the number of notices is not trustworthy evidence of the pressure of the revenue upon the people, but mainly indicates some want of energy in the village officers. The increase in the number of notices in Belgaum was partly due to the necessity of issuing notices to the residents of the Khánápur and Belgaum talukas who had left the talukas on account of plague. The cause assigned in Násik for the increase in the number of distrains of moveable property and forfeitures of occupancies—a tendency on the part of well-to-do rayats to withhold the payment of the revenue on the excuse of famine and bad harvest—would seem to apply in some degree to other districts.

CHAPTER IV.

SCIENTIFIC AND NATIONAL ENQUIRY UNDER IMPERIAL CONTROL.

A.—METEOROLOGY.

32. One rain-gauge station was newly added in the Shikárpur district in Sind. The number of rain-gauge stations in the whole of the Presidency (including Native States) reporting rainfall information to this office were 325 against 324 in the previous year. Four stations were temporarily closed, as the officers in charge of the gauges were called away on plague duty. A separate report on rain-gauge inspection and rainfall registration is submitted under Government Resolution No. 4523, dated 1st December 1894, General Department.

33. The detailed analysis of the rainfall of the season of 1897 will be found in the appended tables (page i—xiii). The fall of the year is contrasted with the average fall and the fall of the preceding year in the statement below :—

Rainfall at District Head-quarters.

No.	District Head-quarters.	ANNUAL RAINFALL ENDING 31ST DECEMBER.					
		Average of eleven years ending 1892.	1896.		1897.		
			Fall.	Rainy days.	Fall.	Rainy days.	
		Inches.	Inches.	No.	Inches.	No.	
1	DECCAN.	Dhulia (Khándesh)	27·61	26·52	31	30·84	34
2		Násik	33·74	36·31	55	28·16	44
3		Ahmadnagar	26·87	19·66	34	18·23	30
4		Poona	36·60	43·41	62	37·18	50
5		Sholápur	32·78	18·40	30	20·42	37
6		Sátára	45·30	50·83	72	46·61	72
7	KARNÁ-TAK.	Belgaum	51·49	63·70	83	45·28	78
8		Bijápur... ..	26·68	11·03	28	28·47	43
9		Dhárwár	33·19	39·64	70	41·24	64
10	KONKAN.	Kárwár (Kánara)	129·20	99·32	99	129·75	103
11		Ratnágiri	106·99	67·78	88	136·16	90
12		Alibágy (Kolába)	91·77	113·75	77	101·02	94
13		Thána	102·50	133·70	90	121·17	91
14	GUJARÁT.	Surat	46·64	42·83	50	39·02	53
15		Broach	39·71	69·99	46	42·34	51
16		Kaira	38·02	40·28	47	24·07	36
17		Godhra (Panch Maháls)	40·71	47·37	54	36·01	46
18		Ahmadabad	27·95	32·40	46	31·18	44

The main feature of the season was that the south-west monsoon was timely, but irregular and feeble. In parts of Gujarát the setting in was hardly perceptible and at the end of June the rain stopped, and agricultural operations were retarded. The crops in the eastern parts of the Deccan and the Karnátak had a trying time of deficient rainfall in July and August. Elsewhere the fall of July set right all irregularities, and the rain continued to be favourable and well-distributed during the next two months. The monsoon rabi rains closed rather too soon in the second half of October. The rabi crops felt some want of moisture. A cyclonic storm brought general rain all over the Presidency in February, but too late for rabi crops.

Deccan.—The monsoon rain set in timely in June. But the current being weak, ceased before the end of the month. It gave very insufficient rain, and sowings where begun were stopped. In the parts bordering on the Sahyádris, moderately good rain in July set right all irregularities and the season continued to be favourable till the middle of October. In the eastern parts, the crops suffered from additional deficiency in July and August. In places they withered away. But a good and widespread fall in September saved the surviving kharíf crops and secured rabi prospects. Then came the usual heavy fall of Hista in October. The rabi crops were put in under favourable circumstances and would have yielded a very good crop if the late rains had not ceased rather early in the middle of October.

Karnátak.—The heavy ante-monsoon showers started early kharíf sowings and the June rain was abundant and seasonable for completing them over a fairly large area. But the break at the end of the month stopped further sowings. Later, the character of the season resembled that in the Deccan. In the western or Mállád tracts the crops flourished without any check throughout the

season. But those in the eastern talukas, including the whole of Bijapur, were withering in July and August. Those that survived were relieved in time by the fall of the last week in August, which was succeeded by a good fall in September. The October rain was beneficial, but ceased in the second fortnight. No rain fell in November and December.

Konkan.—The rain in the commencement was sufficient for general sowing. The break at the end of the month occasioned some anxiety as regards transplantation. From July onward, however, the rain was sufficient and seasonable for all agricultural operations. Later on in September a heavy fall slightly damaged the rice crop in the coast talukas. A good kharif harvest was gathered. The rabi crops also did well.

Gujarat.—The rain that fell in June was so slight that the advent of the monsoon could hardly be said to be perceptible. The sowing rain came in the last three weeks of July. It was sufficient and timely for resuming sowings retarded at the end of the previous month. The subsequent rain in August and September maintained kharif crops in good condition. The Hasta and Chitra showers in October were interrupted with breaks which were well adapted for commencing kharif reaping and sowing rabi crops. The rainy season however closed at this stage. The rice and rabi crops felt some deficiency of moisture, and a good shower at the end of October would have been useful. The cyclonic rain in February somewhat helped the rabi crops, especially those in Surat and Broach.

Forecast of the season of 1898-99.

34. The season of 1898-99 is expected to give on the whole a good harvest of both kharif and rabi crops. The Karnatak and the South Deccan districts received good ante-monsoon showers in April and May, enabling them to make early sowings. The monsoon broke early in June on the Kanara coast, but the current was weak and advanced slowly into the Deccan and Gujarat and soon spent itself, giving a break in the latter half of the month. This checked kharif sowings everywhere. They were, however, resumed and completed in July. During this and the subsequent month the rain fell lightly, which was very trying to the kharif crops in the eastern parts of the Deccan and the Karnatak. In places they withered or were withering away. But copious rain fell everywhere in September, well distributed and most opportune to give the needed relief to the kharif crops. Rabi sowings were effected in good time. The October rain adapted itself to the requirements of the different parts of the Presidency. It was heavy in the eastern rabi tracts of the Deccan and the Karnatak, light in the Konkan and on the Ghats. None fell in Khandesh and Gujarat. In the Karnatak and the Deccan the rabi rains had their full complement in the cyclonic rain of November and the showers that fell in the commencement of December. The early part of the season was characterised by light rain, but it was admirably adapted for the bajri crop. The rabi rains were excellent for rabi jowari. The season was thus specially adapted to both millets.

B.—MINERAL STATISTICS.

35. The annual return of mines and minerals was, as usual, forwarded to the Reporter on Economic Products, Calcutta, the return of mineral concessions being submitted to Government for transmission to the Government of India. In addition to these, the two half-yearly returns showing particulars of mines being worked were supplied to the Director of Geological Survey.

At the suggestion of the Reporter General on Economic Products, some general information regarding manufactures, use and industries of some important minerals not supported by actual returns was supplied to that officer. Mr. Haji Ismail valad Haji Mahomed, to whom a lease to mine for gold was granted in the village of Alnavar, Dhárwár District, has been permitted to assign his rights and privileges to an association of partners (Government Resolution No. 2919, dated 2nd May 1898, Revenue Department).

In Government Resolution No. 2283, dated 30th March 1898, Revenue Department, Mr. E. D. Puzez of Secundarabad (Civil Engineer, His Highness

the Nizám's Guaranteed State Railway Company) has been granted a license to prospect for gold in the Hungund Táluka of the Bijápur District.

The Collector of Dhárwár reports that the license to prospect for precious stones granted under Government Resolution No. 4308, dated 30th May 1896, to Mr. Ibráhim Khán Ismáil Khán Pathan, First Assistant Deputy Educational Inspector, Dhárwár, has been renewed for a further period of one year.

C.—COLLECTIONS FOR THE IMPERIAL INSTITUTE AND THE INDIAN MUSEUM.

36. This year's collections consisted of the following articles :—

Adansonia digitata, Mar. *Gorakh Chinch* (fruits).

Indigofera cordifolia, Mar. *Bochka* (grain).

Indigofera glandulosa, Mar. *Badbade* (grain).

Indigofera linifolia, Mar. *Pándharfali* (grain).

Cyanotis axillaris, Mar. *Ichka* (grain).

The last four were wild grains used as food during the recent famine, and further specimens of grain and plant are being collected.

Besides the above, specimens of some 70 different varieties of sorghums were supplied to the Reporter in January 1897 and further specimens are under collection.

D.—ENTOMOLOGY.

37. Locusts appeared at the close of the season of 1897 in large numbers in various parts of Sind and did considerable damage. In Shikárpur their ravages extended to about 24 per cent. of the total area cropped, in Hyderabad to 14 per cent. and in Karáchi to 8 per cent. In the Upper Sind Frontier district about 58,000 acres were affected. In Thar and Párkar the damage was estimated at from 2 to 14 annas in the rupee. In Shikárpur it was estimated that remissions of revenue to the extent of Rs. 20,000 would have to be granted and in Upper Sind Frontier to Rs. 31,500. Estimates have not been reported for other districts.

Locusts also appeared about the same time in several tálukas of the Gujarát districts and in North Thána. They did some damage to the standing crops of *bájri*, *til*, cotton, *kodra*, *tur*, *náglí*, and *vari*, but their stay was too short to effect any considerable damage. Their presence has also been recently reported in the Upper Sind Frontier District of Sind and in Thána, Kolába and Ahmadnagar districts of the Presidency Proper. In the case of the last two districts the specimens have been identified as belonging to the species of *Acridium succinctum* (Linn.), the locust which is believed to have invaded the Deccan in 1882-83. In all other cases the specimens belonged to the species *Acridium peregrinum* (Oliv.), the great migratory locust of North-Western India. An insect named *Hieroglyphus furcifer* was found to be damaging rice and *bájri* crops in August last in Thána and Surat. Several species of crickets were also reported from Ahmadnagar and Bijápur.

E.—VETERINARY.

38. The Government of India have not yet issued final orders on the revised scheme for the organization of a subordinate civil veterinary service in this Presidency.

Transfer of Sind.

39. The control of horse and mule-breeding operations in Sind has been transferred since 1st April last to the Superintendent, Civil Veterinary Department, Beluchistan, together with the duties in connection with cattle-breeding, cattle-diseases and veterinary dispensaries.

Horse and Mule-breeding.

40. The Superintendent travelled in ten districts in the Presidency Proper and in three in Sind, and also visited the States of Bhávnagar, Gondal, Van-

káner, Morvi, Pálitána, Junágad, Dhrángadhra and Rájkot. He paid six visits to Bombay for the purchase of stallions and for other purposes. He visited all the shows and inspected all the veterinary dispensaries with one exception.

There were 60 horse and pony stallions on the register at the close of the year against 66 during the preceding year, the decrease being chiefly due to no Arab stallions having been purchased during the year owing to the exorbitant prices demanded. The average number of stallions actually at stud work was 58.82 against 59.52. The average number of mares covered per stallion was 26.60 against 32.24 during the preceding year, the falling off being almost wholly confined to the Deccan, where famine and plague prevailed during the year.

The percentage of produce to the number of mares covered showed a marked improvement, being 37.21 against 31.52 during the preceding year, with a corresponding decrease under percentages of results unknown (18.13 against 20.64) and mares not held (44.66 against 47.84). The Sind percentage of produce (45.64) was very satisfactory.

Of the total number of country-bred remounts purchased (465), 20 per cent. were the known produce of Government stallions, 50 per cent. were the produce of country sires, and the breed of the rest was unknown.

The number of animals castrated during the year was 87 against 148 during the preceding year, the fall being attributed to the effects of famine and plague.

The number of donkey stallions at the close of the year was 24 against 28 during the preceding year, but the actual working strength remained almost the same, *viz.*, 25.34 against 25.40. The number of mares covered per stallion fell from 29.64 to 28.13, the decrease being chiefly confined to the Deccan, for reasons stated above. Of the 753 mares covered during the preceding year, 24 per cent. foaled, 51 per cent. did not hold and the result of the rest was not known. The strong religious prejudices of the people to allow their mares to be covered by donkey stallions and the paucity of donkey mares of suitable size to carry out the alternative proposal made by the late Lieutenant-Colonel Humfrey, to cover donkey mares with select Pegu stallions, have since led to the discontinuance of mule-breeding operations in the Deccan and Gujarát.

The Superintendent branded in all 1,544 mares against 525 during the preceding year and 1,465 during 1895-96. The majority of the mares branded belonged to Sind. In the Deccan, he could not brand more than 115 mares owing to a large number of mares having been sent away or sold owing to famine, and the young stock being small and stunted. Only five, out of the 36 officers empowered, exercised their powers of granting certificates to mares fit for service by Government stallions, and they issued 37 certificates. The system is to be given a further trial.

The average cost of maintenance of horse and pony stallions was considerably higher than during the preceding year, being Rs. 533 per stallion against Rs. 405, owing chiefly to the unusually high prices prevailing in the Deccan. The cost on account of donkey stallions showed, however, a slight decrease, being Rs. 299 against Rs. 305, due chiefly to lowering of cost in the Shikárpur district, where nearly half the number of stallions were located.

The Hyderabad Local Board stallion covered as many as 63 mares against 23 during the preceding year, which is very satisfactory. The result of the previous year's coverings was also satisfactory (48 per cent. having foaled and 26 per cent. not held). The Board have also procured a donkey stallion. In Káthiáwár satisfactory progress has been made. A thorough-bred English stallion has been recently lent to Pálitána and another stallion was promised to Rájkot, but could not be sent owing to ill-health. The mule-breeding industry appears to have a firm footing in Káthiáwár, especially in Bhávnagar State, where there are very fine mules bred in the State.

Veterinary Dispensaries.

41. During the year under report an Itinerating Veterinary Assistant was appointed for the Hyderabad district. There were thus twelve stationary and five itinerating veterinary dispensaries at the end of the year. Government have owing to financial pressure postponed consideration of a proposal made to establish a veterinary dispensary at Ratnágiri, and the District Local Board of Sátára have for want of funds postponed the consideration of the question of establishing a veterinary dispensary at Sátára. The District Local Boards of Poona and Surat have not as yet decided to appoint an Itinerating Veterinary Assistant for their district. The Sholápur Dispensary, sanctioned long ago, has not yet been opened for want of a suitable building.

The following statement shows a steady and satisfactory progress both in the number of patients treated and in the results of treatment:—

Year.	Number of Stationary and Itinerating Dispensaries open.	Total number of animals treated.	PERCENTAGE SHOWN ON TOTAL ANIMALS TREATED.					Remaining under treatment at the end of the year.
			Cured.	Relieved.	Died.	Returned incurable.	Results unknown.	
1892-93 ...	7	4,466	70.3	10.2	2.9	2.9	11.3	2.4
1893-94 ...	12	9,843	74.89	9.99	3.09	1.88	7.80	2.35
1894-95 ...	14	13,936	76.33	8.27	3.01	1.57	9.05	1.77
1895-96 ...	16	17,554	75.36	7.57	3.24	1.31	10.08	2.44
1896-97 ...	16	19,614	78.16	6.14	2.90	1.02	10.27	1.51
1897-98 ...	17	19,976	80.18	5.41	2.18	0.79	9.68	1.86

The work of the Veterinary Assistants and the condition of the dispensaries inspected were generally satisfactory. The Veterinary Assistants in charge of veterinary dispensaries at Ahmadabad and Kaira, Karáchi and Hyderabad have been specially commended for their good work. The permanent buildings erected for the Dhulia-dispensary have been occupied. Belgaum, Hyderabad, Shikárpur and Surat dispensaries are still in need of permanent buildings.

Cattle-diseases.

42. The following statement shows the extent to which cattle-diseases prevailed during the year:—

District.	RINDERPEST.		ANTHRAX.		FOOT AND MOUTH DISEASE.		PLEURO-PNEUMONIA.		CHARBON SYMPTOMATIQUE.		OTHER DISEASES.		TOTAL.	
	Attacked.	Died.	Attacked.	Died.	Attacked.	Died.	Attacked.	Died.	Attacked.	Died.	Attacked.	Died.	Attacked.	Died.
Bombay City ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ahmadabad ...	...	...	...	...	593	4	...	...	...	...	35	35	1,501	534
Kaira ...	60	9	...	...	...	...	...	...	10	10	...	...	69	14
Panch Maháls ...	37	28	...	...	...	...	...	...	...	...	...	...	37	24
Broach ...	...	...	...	...	186	3	...	...	...	...	...	...	100	3
Khandesh ...	145	100	...	...	224	...	...	...	...	...	...	...	309	100
Násik ...	243	111	...	...	803	11	...	...	23	23	...	...	1,069	145
Ahmadnagar ...	41	32	...	...	113	23	...	...	...	...	...	...	154	45
Poona ...	...	...	...	...	170	15	...	...	...	...	254	157	424	202
Sátára ...	68	42	...	...	21	...	...	...	...	...	...	...	47	42
Belgaum ...	31	12	89	20	367	22	4	3	...	...	...	...	441	20
Bijápur ...	9	9	...	...	...	...	...	...	...	...	...	...	9	9
Dhárwár ...	79	81	...	...	209	10	...	...	...	...	16	11	304	52
Thána ...	1,151	831	...	...	40	...	...	...	...	...	...	...	1,191	571
Kolába ...	131	89	...	...	1,110	8	...	...	...	...	...	...	1,241	100
Ratnágiri ...	181	83	...	...	...	...	...	...	...	...	22	10	204	103
Kánara ...	479	262	...	...	81	36	...	...	22	22	34	20	616	350
Karáchi ...	209	86	...	...	...	...	...	...	...	...	...	...	293	86
Shikárpur ...	1,657	1,143	...	...	...	...	...	...	...	...	...	...	1,657	1,143
Upper-Sind Frontier ...	2,737	2,019	...	...	...	...	...	...	...	...	...	...	2,737	2,019
Total ...	7,295	4,906	89	20	3,936	122	4	3	55	55	1,269	593	12,045	6,928
Total, 1896-97 ...	10,062	9,953	237	85	1,140	63	...	...	153	47	85	62	20,713	10,240

The above figures show that there were 12,648 attacks against 20,713 during the preceding year. Out of these, 5,918 or 46·79 per cent. proved fatal against 10,211 or 49·34 per cent. during the preceding year. Fifty-seven per cent. of the attacks were due to rinderpest, 31 per cent. to foot and mouth disease, and the rest to other diseases. Rinderpest appeared in 16 districts of the Presidency and was responsible for 83 per cent. of the total number of deaths, and the districts that suffered most heavily from it were the Upper Sind Frontier, Shikárpur and Thána.

The Veterinary Graduate appointed by the District Local Board of Ratná-giri is still working in the district, and a Veterinary Inspector has also been engaged by the District Local Board of Kolaba to repress outbreaks of cattle-diseases in that district.

Horse and Cattle Shows.

43. Three shows aided by Government were held during the year, *viz.*, at Jacobabad, Moro and Talhár, all in Sind. A show was also held at Junágad in Káthiáwár.

The Jacobabad Show.—The show was held, as before, on the 2nd Monday in January and following days. The total number of animals exhibited was 1,125 against 1,395 during the preceding year. This decline was mainly attributed to the abolition of the miscellaneous class for horses and ponies, the restriction of prizes for uncertificated stock, and the large purchases of remounts made at the Quetta Show. Of the animals exhibited, 434 belonged to the Upper Sind Frontier district, 81 to Shikárpur, 4 to Karáchi and Khairpur, and the rest to Beluchistan and Afghanistan. The quality of the exhibits was decidedly above the average. Every class except the one for remounts was commended by the Judges. Sixty-nine remounts were purchased against 98 during the preceding year. Seventy-one mules were exhibited as compared with 91 in 1897; they were well grown and in excellent condition, but the majority of them being young only 16 animals were purchased as against 31 during the preceding year. Forty-eight fine bullocks were exhibited in the Transport Bullock Class, but no officer of the Commissariat Department was present to buy, though that class was instituted at the instance of that Department. A reply from the Commissary General on the subject shows that exigencies of military operations on the North-West Frontier had obliged that Department to make purchases before the show was held and that “condemnations of bullocks generally take place on the 15th of September every year and, under the orders of Government, their complement cannot be kept incomplete till January, when the fair at Jacobabad is held, if animals are procurable elsewhere.” Rs. 4,489 were distributed in prizes, of which Rs. 3,159 were carried off by exhibitors from beyond the Frontier, and of the rest Rs. 1,030 were awarded to exhibitors from the Upper Sind Frontier district and Rs. 300 to those from Shikárpur.

The Moro Show.—The sixth show of the Naushaharo sub-division of the Hyderabad district was again held at Moro on the 17th to 19th January 1898. Cattle and camels were excluded from the show, as decided by the Committee the preceding year, in order to give greater encouragement to horse and mule breeding. Leaving out of account these two classes, the number of animals exhibited was 399 against 623 during the preceding year, the decrease being attributed to an unfavourable season, the approach of the date of the solar eclipse, and an idea current among the people that the opportunity would be taken to secure animals for transport purposes in connection with the military operations on the Frontier. The quality of the exhibits generally was not up to the average, which may be partly attributed to the fact that the division changed hands no less than three times. It is thought that the poor results of the show were not due to any permanent causes, and it is hoped the next show will be successful. The 20 mules exhibited were all locally bred, and covering and foaling certificates, which were required for the first time, were produced without any difficulty. Government contributed Rs. 600 towards the expenses of the show.

The Talhár Show.—The fourth show at Talhár (in the south of Hyderabad) was held on the 24th to 27th January 1898. The exhibits numbered 823

against 791 during the preceding year. The brood mares were excellent and the young stock was most promising. Young mules bred in the district were exhibited for the first time and were pronounced to be a good class. All the remounts exhibited were indigenous and several of them were considered fit for Native cavalry. Covering and foaling certificates were, as at the Moro Show, readily produced. In the opinion of the judges, the show, both as regards numbers and quality, was by far the best and most successful ever held at Talhár. Government contributed Rs. 400 towards the expenses of the show and a recommendation has been made for increasing the grant.

The Junágad Show.—This was the second show held in Káthiáwár under the system approved by Government in 1895, whereby the Metropolitan Show formerly held at Rájkot alone has been replaced by shows to be held in rotation at four different places, viz., Rájkot, Junágad, Wadhván and Bhávnagar. The show was held on the 10th March. The number of exhibits amounted to 255. Brood mares were old and unsound and young stock small and badly grown. But the Darbár mares were good and young stock well-grown and promising. In the opinion of the Superintendent, Civil Veterinary Department, the show taken throughout was not as successful as the one previously held at Bhávnagar. Doubts having been raised as to whether the present system of holding the Káthiáwár Show in rotation at four places should be persevered in, it has been decided to relegate the consideration of the question till after the next show to be held at Rájkot.

F.—ARCHÆOLOGY.

44. The Collectors of Ratnágiri and Thána have, under Government Resolution No. 1672 of 30th April 1889, General Department, reported the discovery of coins in their districts. The coins discovered in Ratnágiri are of gold and are 19 in number. The Thána coins are of silver and are of three sets. They have not yet been disposed of. Neither of the sets of the Thána coins reported last year (paragraph 83, page 49) possess any archæological interest, one set having been refused by the Royal Asiatic Society, Bombay, and the other having been found to consist of Babashahi coins.

G.—TRADE AND TRADE STATISTICS

45. The trade registered in 1897-98 is as shown in the following table extracted from the annual report separately submitted :—

Year.	PRESIDENCY PROPER.				SIND.				
	External Trade.		Local Trade.	Total Trade.	External Trade.		Local Trade.	Total Trade.	
	Imports.	Exports.			Imports.	Exports.			
Maunds (1 Md. = 82½ lbs.) ; 00000 omitted.									
Average	209	124	329	752	92	39	74	205	
1896-97	231	125	305	661	52	62	55	163	
1897-98	276	135	304	715	73	36	70	179	
Increase (+) or decrease (—) over average	—23	+11	—25	—37	—19	—3	—4	—26	
Increase (+) or decrease (—) over last year	+45	+10	—1	+54	+21	—26	+15	+10	

The total trade in the Presidency Proper improved 8 per cent. above the previous year, but it was 5 per cent. below the average. In Sind also the total trade was above the previous year and below the average ; the percentages being 6 and 13 respectively.

The road-borne trade was, as usual, registered at six selected nákas in the Presidency Proper.

CHAPTER V.

SCIENTIFIC AND LOCAL ENQUIRY UNDER PROVINCIAL CONTROL.

A.—EXPERIMENTAL FARMS.

46. Mr. Mollison, the Deputy Director of Agriculture, has, as usual, given in his Annual Report, which he submitted in September last, an interesting and clear account of the cultural operations and the dairy farming and breeding of stock conducted on the Poona and Surat Farms during the year 1897-98. The report has been separately circulated. A brief notice of the principal points is given below.

Poona Farm.

47. The season was normal, the rainfall being well distributed on the whole. In August and early September the crops felt the want of rain, but good showers which freshened the crops fell during the last fortnight of September. Heavy rain during the first fortnight of October did some harm in beating down the crops and sprouting the grain in the ears of crops ready for harvest. No rain fell in November and December, so that hay was made under more favourable circumstances.

The unfortunate feature of the season was the damage done by caterpillars. The damage was general throughout the whole of the Poona district. The greatest damage was done to early-sown crops. The caterpillars were submitted to the Curator, Indian Museum, for identification and were found to be the larvæ of a noctues moth.

Fodder Experiments.

48. The experience of the past year, regarding the characteristic qualities and comparative values of the different varieties of sorghums as fodder crops, adds little to the information gained by previous experiments. About a hundred different kinds of jowâr collected from all parts of the Presidency are now being experimented with at the Kirkee and Surat Farms and it will later on be possible to enlarge the list of those found specially valuable. The best grain varieties have generally large dense heads of grain with usually a curved peduncle; so that the head droops as the grain ripens. Mr. Mollison has divided the varieties into two main sections, (a) those specially valuable for the production of grain, and (b) those apparently suitable for the production of a fair outturn of grain, together with a large outturn of fodder of good quality. The cultivation of the "a" type is being proceeded with on the Surat Farm, and that of the "b" on the Kirkee Farm.

The results of the best fodder varieties examined by Mr. Mollison have been epitomised as below.

Sundhia.—The two varieties, Farfaria and Amaria, are very similar in appearance; but the latter has a denser head of grain with a tendency for the peduncle to curve slightly. Both varieties do exceptionally well on any description of fairly fertile free working soil, provided the rainfall is well distributed; with heavy rain the crop is apt to lodge if sown thickly. A good crop when in flower stands from 10 to 11 feet high and the stalks are no thicker than wheat straw and could be fed to cattle without waste.

Dudhia.—Is very common in the *gorâdu* soils of Kaira and Baroda and the grain heads are small but dense. The stalks are coarser than Sundhia, but the habit of growth of both Sundhia and Dudhia are very similar.

Nilva.—This is the best Deccan fodder variety. It is also grown for grain, but its chief cultivation is near popular centres where fodder of fine quality is specially valuable. It does not require so high a seed rate as Sundhia and it has more leaf growth. The stalks are not coarse and there is no waste in feeding the fodder. If Nilva is cut green, and a fair stubble is left, a second and third cut can be had in the same season provided it is irrigated or has a sufficient rainfall. This is a valuable characteristic common to some varieties of

jowár only. Nilva almost under any circumstances will yield a greater outturn than Sundhia, but Mr. Mollison values the fodder of Nilva at a lower rate, because the stalks are more woody and coarser than those of Sundhiá.

American Sugar Sorghums.—The two varieties introduced several years ago by the Department, though grown in America purely as sugar crops, have been found on trial not to answer as such in India. The percentage of sugar, however, which the ripe stalks contain, adds to their feeding value. But these sorghums in the Deccan are not so reliable as Nilva under unfavourable conditions of soil and season. In a favourable year with well-distributed rainfall and in soil in fairly good condition they compare favourably with any of the other varieties tested.

Imphee—as grown on the farm may be classed as a near relative of the American sugar sorghums; but it does not yield so satisfactorily. The American sorghums, if cut green, send up in favourable weather a second and third growth, each successive growth being more diminutive than the preceding ones.

Utávali—Is a tall, fairly good variety with loose upright heads of grains, extensively grown in the Deccan, and is particularly suitable for sowing between the kharif and rabi seasons. Mr. Mollison does not recommend this variety as a fodder crop, except when for special reasons it becomes necessary to sow in August and September. Several early-sown crops were attacked with caterpillars. In one field after ploughing up the affected crop to prevent the pest spreading, Utávali was sown in the middle of August. When reaped at the end of November it yielded 9,940 lbs. of dry fodder per acre.

For cultivation under irrigation in the hot weather most varieties of jowár have been found unsuitable, but after repeated trials two varieties, Kalbondi and Hundi, have been found suitable. Moreover, these varieties have the additional advantage of producing a second and third crop from the root stalks of the first crop if irrigation is continued or if the rainfall is sufficient. Mr. Mollison is of opinion that the mixed black soil of the farm though well stocked with manure cannot stand continuous irrigation for long, and to prevent the deterioration of the land the plan of growing a pulse crop subordinate to the fodder sorghums has been tried and thus practically two dry crops are got in a season and the benefits of rotation are also secured. If certain pulse crops are selected, there is no diminution of outturn, and the mixed fodder, if cut green, is superior to either ingredient alone. As a mixed crop, tur is an excellent pulse to grow. Its period of growth, if sown in June and July, extends well into the fair season and the crop residues it leaves as surface tilth and deep tap roots make it a first-rate rotation crop. The outturn results obtained on the farm were very favourable, but as there was no rain after October, the crop was watered and therefore the cost of cultivation was rather high.

Maize.—As a fodder crop, maize gave very satisfactory results on the farm. The experiments with the American varieties were not so successful as with the ordinary country maize. An experimenter in the Poona district was able to grow from seed which was imported as famine corn some particularly well-filled large "cobs".

Sorghum Halepense.—The crop has not succeeded as well as was at first anticipated. The greater portion of the plot has been ploughed up, a small patch having been left for future observations. Mr. Mollison concludes that this grass requires fresh ground occasionally and is not suitable for permanent pasture, and as it is difficult to eradicate, it is not likely to be sown extensively on arable land.

Mauritius Water Grass.—This grass was imported from Ceylon, where it grows with great luxuriance. In low-lying damp situations on the farm, where no other crop would thrive, this grass has done well. The best results are obtained only in the monsoon, especially during heavy rainfall.

Guinea Grass.—Like the Mauritius water grass, Guinea grass thrives well during heavy rain, and the early cessation of the rains unfavourably affected the results for the year under report. The grass is one of those which can con-

tinuously be grown under the shade of trees and in odd corners of fields where no other ordinary cultivated crop would thrive. Several sets have been supplied to applicants from all parts of the Presidency and to Native States.

Medicago Sativa.—The lucerne fields were invaded by rats, which did considerable damage. The results between comparative plots of lucerne alone and lucerne and Guinea grass mixed are not, therefore, reported. During the plague in Poona and Kirkee rats were more troublesome than usual, as they migrated in large numbers to the fields in the neighbourhood of Poona and Kirkee generally. Lucerne is a very profitable crop as long as it remains healthy and free from mishap, but it is very liable to casualties, and the practice of growing it mixed with Guinea grass is a safeguard.

Experiment with Fibre crops.

49. *Egyptian Cotton.*—In the first year of importation numerous experiments were arranged for by Mr. J. N. Tata under varying conditions of soil and climate, the Agricultural Department helping in the experiments as far as possible. The only trial, which gave results at all encouraging, was at the Kirkee Farm. These satisfactory results, it is to be noted, were obtained in a district which is not a cotton-growing one. In the second year Mr. Tata again supplied freshly imported seed, and both this and the seed produced from the Kirkee Farm crop of the previous year were sown in the farms at Kirkee and Surat. The experiment proved a failure at Surat, a cotton-growing district. This was due to the soil being deep black and very retentive of moisture and the rainfall being very heavy—conditions very different from those prevailing in Egypt. On the Kirkee Farm, Egyptian cotton was grown in comparison with Goghari and Broach Deshi varieties. It was sown on ridges strictly in accordance with the Egyptian method of cultivation, and as this method could be in no way detrimental to the Broach cotton, the same system was adopted in the three plots in which the experiments were made. In July there was drought, and as the plants were inclined to wither, irrigation water was run along the furrows. There was no rain after October; so that the plots were irrigated in November and December. The Broach Deshi Goghari turned out very fine, but the Egyptian was patchy. In parts only the plants were fairly healthy with a fair number of bolls. In all plants the leaves had, more or less, the appearance of being rusted or burnt by the sun and crumpled up. The Deshi Goghari plots were picked during March, April and May, and the Egyptian from December to April.

The outturn results are compared below :—

				Lint and seed per acre.
				Lbs.
Deshi Broach	...	...	...	806
Goghari ...	...	...	...	846
Egyptian	...	...	...	104

Mr. Mollison has now made fair and patient trials of exotic varieties of cotton and has no reason to alter the conclusions published by him last year, *viz.*, that it has been proved that exotic varieties of cotton are unsuited for the conditions of Indian agriculture; that an indigenous variety found suitable in one district might prove unsuitable for another and that the only hope of improvement lies in taking the varieties that are found in general cultivation and trying to improve them by selection of seed continued from year to year.

Rhea.—Considerable interest has been excited within the last few years regarding the practical utility of the plant as an ordinary cultivated crop in India. A patch was grown on the farm to determine whether the crop would thrive under the conditions of soil and climate of the Deccan. The plants, helped by light irrigation, thrived as well during the hot weather as earlier. A larger patch was planted and every root planted grew. The plantation is now of sufficient size to give practical results as regards outturn and value of produce per acre, and details regarding treatment of stems in extracting the fibre will be recorded. Mr. Mollison is of opinion that no difficulty should be experienced in planting out a comparatively large plantation from a small nursery patch.

Experiments with other crops.

50. *Báji*—is a very important crop on the light soils of the Deccan and the object of the experiments is to determine which are the best varieties for general cultivation. It is also important to test whether varieties can be improved by selection and for this purpose the largest and best filled heads of grain are selected at harvest time and kept specially for seed for the crop of the following year. This line of experiments has been followed for some years on the farm and will be continued from year to year. The season for *báji* was an exceptionally good one. The crops were so thick and heavy that some of the subordinate pulses were mostly killed, *Ambádi* being the only subordinate crop that gave any produce of importance.

Gram—is grown annually on the farm chiefly because it is a good rotation crop and requires very little irrigation. The results of the year were rather disappointing, due to the fact that the crop was affected by a disease of a peculiar character which appeared in patches. The plants, when pulled up, had no hold of the soil, the roots being partially decayed.

White Onions.—A fine white variety with mild flavour was grown to provide seed for distribution. Owing to ring disease in potatoes, onions have largely taken the place of that important crop, and from Bombay the export of onions is considerable. The onion bulbs were transferred to the Empress Gardens, where they were planted for seed and a first-class crop of seed obtained.

Sugarcane.—The small experimental plots with different varieties on the farm afforded an excellent object-lesson which in the clearest manner demonstrated the advisability of experimental trials before cultivation of any extent is attempted or recommended. Some varieties grew remarkably well; others failed signally. Of the different varieties tried, the most conspicuous failures were those brought from the Surat district. Such failure might have been anticipated because of the abrupt change from the sea air, the heavy rainfall and deep soil of Surat, to the drier air, lighter rainfall and shallower soils of the Deccan. Such varieties as gave promise of success were transferred from Kirkee to the special sugarcane experimental area at *Mánjri*.

Sugarcane Experiments at Mánjri.

51. After three years of continuous experiments it was found expedient to rest the greater portion of the land for a season. The soil is mixed black and will not bear continuous irrigation and at the same time produce healthy crops. The net cost of the experiments in the year under report was Rs. 626.

Ganesh Khind Gardens.

52. *Graft Mangoes*.—The plantation was extended during the year and now contains about 2,800 trees. Cloudy weather or some other unfavourable atmospheric condition interferes with fertilization or causes the immature fruit to drop, so that the trees are not remunerative. The mango crop was sold for Rs. 210 by auction and the income exceeded the expenditure by Rs. 136.

The Dairy and the Dairy Herd.

53. The financial results were disappointing, the net cost being Rs. 1,334. There were 187 animals in the herd at the end of the year as compared with 192 at the beginning. Thirty-five animals, chiefly young he-buffaloes and old worn-out cows, were sold. An unduly large proportion of the animals ran dry owing to an outbreak of foot and mouth disease. For this reason the receipts were Rs. 1,800 less than in the previous year. In spite of segregation and thorough disinfection twice daily of the stalls, feeding boxes, gear, &c., fully one-third of the herd became affected.

The dairy produce from 77 animals in milk was sold for Rs. 15,212. The purchase of concentrated food and fodder, the rent of grass land, and hay-making expenses amounted to Rs. 12,570. The fodder on hand at the end of the year is valued at Rs. 2,876. The dairy supplied milk and butter for the entire

year to the Commissariat Department for sick soldiers at the ordinary rates and to the public at rates fixed purposely higher than in private dairies.

Improved methods and the manipulation of improved dairy machinery are taught to any one who may choose to learn. The trade in butter and other dairy produce made by improved methods is now extensively carried on in India, and the Bombay Agricultural Department can take credit for initiating this trade.

The services of farm bulls are given gratis for all healthy cows and freely taken advantage of.

Full information regarding the management of dairy cattle in India and milk and milk products, has been given by Mr. Mollison in pamphlets for the Agricultural Ledger Series.

54. The net cost of the farm, inclusive of the Ganesh Khind Gardens, came to Rs. 1,746 as compared with Rs. 2,716 in 1896-97 and Rs. 1,853 in 1895-96.

Surat Farm.

55. The season was not favourable. Sufficient rain for sowing did not fall till late and the cultivation of jowár and cotton could not be commenced till a month later than usual.

Manure rotation experiments with the staple crops of the district.

56. On the dry-crop portion of the farm, two experimental areas were divided into 25 plots,—those in one being the duplicates of the other. The soil in each area is deep black and does not vary in depth or consistency. It represents the average quality of good black soil in the district, and cotton and jowár are the staple crops grown on such land. In each case the land is believed to have been cropped without manure for several years. It was known that the fertility of both fields was at a very low ebb, and it was deemed advisable to manure all the plots with ten tons per acre of farm-yard manure, except the two last plots, which will be permanently unmanured. The results did not indicate that the outturn was largely increased by the manure applied, and the yields from the unmanured plots were not much inferior to those from the manured plots. In the case of cotton, an explanation can be found in the fact that cotton does not benefit by manures directly applied so much as from the residue of manures applied to previous crops. The outturn from the plots, which were all treated in like manner, did not give even results; the plants were not absolutely regular in all plots, some being patchy. This is due rather to the nature of the season than to any difference in soil and treatment.

The objects of the manure rotation are to show (a) that it is not a good practice to take cotton and jowár in alternate years without any variation, (b) the value of a more extended rotation, (c) the value of a green manure, (d) the value of growing a leguminose crop subordinate to jowár or at regular intervals, (e) whether a dressing of concentrated manure costing Rs. 10 per acre applied every second year pays better than no manure at all, and (f) finally that by means of a moderate application of farm-yard manure, with the assistance of green manuring and proper rotation, the fertility of black cotton soil can be maintained at a tolerably high standard. Any comparison of the results cannot with any exactness be made till the rotations are complete, and for a strict comparison probably 6 years ought to elapse. For at the end of that period the plots of each rotation will have each grown the same crop (or have been fallowed) either two or three times.

The improvement of seed by selection of the staple crops in the district.

57. The principal object is to improve by selection the seed of the staple crops of the district, and to produce in time, by selection, improved pedigree varieties. The two chief crops are jowár and cotton. As these cannot be advantageously rotated with each other continuously, a third crop—til—is becoming somewhat common as an ordinary dry crop in the district. It is in every way

suitable, because like jowár and cotton it should be sown late. Thus in a cotton-jowár-til rotation, the land can be thoroughly ploughed one year in three, *i.e.*, in the year til is grown. Three varieties of til were grown, but as the season was abnormally unsuitable for til, all the varieties did badly, the local kind giving better results than the others.

Many fine grain varieties of jowár were tried on the farm, the chief being the best local kinds, *viz.*, Perio, Chapti and Sholápurí—the latter, as its name implies, being an imported variety.

In the general cultivation of cotton, attention will exclusively be confined to the local varieties. Experiments in the past have proved conclusively that there is little hope of improvement by introducing exotic varieties, or of varieties indigenous to other parts of the Presidency or of India. Surat and Broách cotton maintain a high reputation in the European markets and that reputation can, it is believed, be improved by efforts towards improvement continued from year to year. The efforts are chiefly in the direction of careful cultivation and the selection at harvest time of the best bolls from the healthiest and most vigorous growing plants, the seeds from such bolls being used in the following season. Attention will be concentrated principally to the two best local varieties, *viz.*, the Deshi of Surat (the best of which is grown round Navsari) and the Goghari of Broach. The scheme of experiments will be to have three fields each in turn growing cotton, jowár, sesamum and tur, manured fairly liberally once in the rotation.

Fifty-two different varieties of jowar were tried, and occupied $9\frac{1}{4}$ acres. This number has been further increased by collections from different parts of the Presidency, and those only have been selected which are likely to prove good grain varieties. There are 65 of such kinds. Large well-filled heads of grain were obtained and Mr. Mollison has taken full descriptions regarding the size, shape and weight of the heads of grain, the general character of the plant, and the size, shape, colour and number of grains per tola of the original seed, and from such memoranda it will readily be determined whether there is deterioration or improvement as the experiments on the Surat Farm proceed.

Surat Dairy and Dairy Herd.

58. A herd of Gir cows and Surat buffaloes are kept, and efforts are made to improve these for milk purposes in the same way as the Sind and Aden cattle at Poona. Milk and butter are sold locally, and the cream and surplus milk are separated and sent by rail to the Kirkee Farm and there made into butter. Separated milk commands a fairly satisfactory figure at Surat, *viz.*, 8 annas per local maund of 40 lbs.

59. The net cost of the farm, inclusive of the Dairy, came to Rs. 4,662. It is to be regretted that the farm should have been so costly. But the receipts were in comparison with ordinary expenditure much less than they will be in future years. Plague developed to an alarming extent in Surat. The city was emptied of a considerable portion of its population. The local trade in vegetable and other produce was largely disorganized, and the trade with Bombay, which in similar produce is ordinarily considerable, was also disorganized. Such perishable portion of the garden produce as had to be forced on the market as it ripened, was only saleable at rates much below the average and often at rates more or less nominal.

Nadia'd Farm.

60. This farm was managed for the entire year by the farm Superintendent, an agricultural Graduate, and was inspected by Mr. Mollison, Deputy Director of Agriculture. The season was not a good one. The monsoon broke late and rain was deficient later, particularly at the time when tobacco was transplanted. For this reason and also owing to caterpillars having been rather destructive, the results are somewhat irregular. The sale of seeds from the Society's seed-store amounted to Rs. 894, or about treble the average of previous years. The closing balance of the accounts was less than the previous year by Rs. 14,461. This is no doubt due to a sum of Rs. 1,903 being spent in additions and alterations to the bungalow. It is somewhat to be regretted that the usual

contribution of Rs. 150 to the Veterinary Dispensary and the scholarships to Agricultural students were not awarded during the year under report.

The object of the seed-store is to supply sound seed of good variety to local cultivators not in a position to obtain that seed for themselves. The report of the Society, however, shows that the seed was sent to various parts of India, but does not show the extent of the local demand.

Hyderabad Farm.

61. A portion of the farm has been leased to a private individual at an annual rental, on condition that the lessee should settle on the land, rear poultry, pigs, &c., and maintain a vegetable and fruit garden. A small plot is annually sown with jowari, bajri, lucerne, Guinea grass and vegetables, in connection with the Local Fund Garden.

The Municipality of Hyderabad hope shortly to purchase a more powerful and improved engine for the water lift at Gidu Bandar, and if the project is carried out, it is expected that the remaining survey numbers of the farm lands could without difficulty be attached to the Local Fund Garden, and thus be brought under lucerne or Guinea grass cultivation.

Empress Gardens.

62. The gardens were under the management of the Agri-Horticultural Society, the year under report being the first of the further term of five years for which Government have sanctioned the management by the Society. The financial statements show that the receipts for the year were Rs. 8,182 and the expenditure Rs. 11,165. The deficit was Rs. 2,982-8-0. Government have agreed to make good any annual deficit up to Rs. 3,000.

The system of management was completely changed. The highly paid Superintendent was replaced by a much cheaper man and the saving thus effected was in part utilized to pay four thoroughly experienced head malees. Each head malee is in charge of a different section of the garden and there is thus a healthy spirit of emulation between them. The propagation of fruit trees, of foliage and flowering plants of rare variety, of useful plants and trees, has been greater than in previous years.

There was an increase in the sales of European and indigenous seeds, and the sales were quite satisfactory in extent. A new seed-room and office were built and affords better accommodation for storing seeds. The sales of plants were less by Rs. 371 than in 1896-97, but the sale of cut-flowers increased by Rs. 370. Fruit and vegetables showed a very satisfactory increase of Rs. 653, the sales being nearly double those of the previous year. Other garden produce increased by Rs. 240, but this was on account of the sale of bábul trees removed because they shaded and injured the fruit-tree plantations.

The season as regards rainfall and other conditions was generally favourable for the operations of the gardens.

Throughout the year the ornamental part of the garden presented a thoroughly attractive appearance and the popularity of the gardens as a public resort was well maintained.

The fruit plantations, which are now well established, continued to thrive and with the exception of mangoes and figs produced satisfactory crops. The failure of the mango crop was general in the Deccan. The fig plantation was managed in accordance with the customary practice of the Diva Ghát cultivators, who are able in their own plantations to produce the finest quality of fruit. It is thought that the exposure and rainfall and character of soil under the Diva Ghát suit the crop better than the conditions in the Empress Gardens.

The Mozambique oranges grew with great vigour and presented an extraordinarily healthy appearance. The trees last year produced an excellent crop and again this year promise very well. The plantation of Santra oranges was not so forward. The young plants were delicate, some died and had to be replaced. All the trees are, however, thriving and the more forward of them are

now in bearing. The crop of the custard apple plantation, which consists of 360 trees, was sold for Rs. 175. It was inferior to the crop of the previous year.

A better account can be given of the vineries, which have at last given fair promise of success. The services of a malee who understands the pruning and training of vines was secured. The bunches of grapes were numerous, some of the bunches being very large. Mildew developed during cloudy weather and affected the finer English varieties to a greater extent than the Násik indigenous kinds. The Násik grapes escaped the disease to a greater extent than the exotics and sold readily for 5 lbs. to the rupee, realizing Rs. 75. Cape gooseberries were grown with great success and realized from less than an acre of ground Rs. 256. The produce of vegetables to the value of Rs. 374 was sold during the year. Plantains did fairly well, and a plantation of 800 plants occupying two-thirds of an acre produced fruit to the value of Rs. 145.

B.—MISCELLANEOUS EXPERIMENTS.

63. *Arrowroot*.—Last year the Dápoli plantation of arrowroot yielded a very poor crop, the outturn being less than one-third the normal. This result is attributed to the bad quality of the tubers preserved as seed from the crop of the previous year, when the season was unfavourable. About 10 acres of land have been put under the crop in the current year. There is at present a fair local demand for the product.

64. *Strawberry*.—No new plants were brought to Mahábaleshvar for cultivation during the year 1897-98. But the plants brought from Bangalore in the year 1896-97 yielded satisfactorily, and from established plantations young plants can be taken for extended cultivation.

65. *Coffee*.—Little progress is reported to have been made by Ráo Bahádur Morey in the cultivation of coffee on the lands leased to him in the Supa Petha. He has up to this time planted an area of only 6 gunthas and the plants are not yet in bearing.

Mr. Gogte, of Dápoli, has also got an old plantation of 200 to 300 plants which he hopes shortly to extend if he can secure a money loan from Government.

66. *European Carrots*.—As mentioned in last year's report (paragraph 49), European carrot seed of three varieties, white, yellow and red, procured by the Government of the North-Western Provinces and Oudh for use during the famine of 1896-97, was distributed in several British districts and Native States of this Presidency. The result, as anticipated, was more or less a failure except in a few favoured localities.

In Gujarát the seed either failed to germinate or gave a poor crop in the Ahmadabad and Surat districts. In the Panch Maháls the result was fairly satisfactory. In Broach a Pársi gentleman succeeded in raising a good crop on *gorát* (medium light) soil by means of careful tillage and the application of liquid manure. The outturn was 9 tons per acre. In the Baroda State Gardens, the seed germinated well; but the carrot itself was of medium size and lacked flavour. Elsewhere in Baroda the trials were unsuccessful. In Káthiáwár no fair trial could be made owing to an unfavourable season. In Rádhanpur the seed germinated fairly well in two places, but not elsewhere. In Ydar, in the Jail garden, 3 gunthas yielded about 400 lbs. of carrots. Elsewhere a poor crop of thin roots was obtained.

In the Deccan the seed was tried in three districts. In the Jail garden at Dhulia in Khándesh the crop germinated well, the white seed giving the best results. The outturn was about two-thirds of the country carrots. In Násik the seed was sown on pásthal bágáyat land side by side with country variety. The outturn from both was almost equal. But the European kind gave 20 per cent. of tops against 35 per cent. in the other. Thus the European carrots had heavier roots and they were cleaner in shape and firmer in flesh than the indigenous carrots. On the Government Farm at Poona several sowings were made, but the germination was very unsatisfactory, and the few seedlings which did

appear came to nothing. In Haveli and Purandhar talukas of the same district the results were equally unsatisfactory. At the Yerrowda Jail 1½ lbs. of white seed yielded 1,000 lbs. and 1^a/₁₆ lbs. of red variety yielded 500 lbs. The roots were well grown, well shaped and did not split.

In Dhárwár Jail garden a small patch produced roots of a large size and of good flavour. Elsewhere in the district the seed either did not germinate or produced a poor crop. The trials in the Kolhápúr State were not successful; sowings were belated and irrigation deficient. In the Ratnágiri Jail garden the seed germinated satisfactorily. In the Kárwár Prison garden, the experiment was more or less successful. Elsewhere in the district the trials resulted in failure.

In Shikárpur the seed gave satisfactory results.

The Commissary General, Bombay Command, had the seed tried at Mhow, Quetta and Deesa. At Mhow 8 lbs. of seed yielded over 11,000 lbs. per acre. At Quetta the trial was unsuccessful owing to severe frost during December, January and February. At Deesa 5 lbs. were sown in the river-bed garden in one acre and the yield was 4,400 lbs. carrots.

The experiment is again being tried in several places.

67. *Sabai Grass*.—The Deccan Paper Mills Company report that an important departure in the cultivation of the grass was adopted by them last year. They stopped both irrigation and weeding altogether. Whether due to this or to some other unknown cause, the growth of flower stalks was materially less. Where with weeding and watering the ratio of flower stalks to the grass, taking the average of some years, was 16 per cent. it was in the present instance only 5 per cent. Instead of having, however, three crops in a year the grass was allowed to grow this time for 9 months. It yielded 1 ton 18 cwts. per acre. If in future two such crops could be reaped in 18 months with equally successful results as regards flower stalks, the output of grass will compare favourably with the previous yield of 2½ tons per acre in 12 months with irrigation. Although there was no actual irrigation, the land being under command of the Khadak-wásla Canal, the crop must have been helped by some sub-soil moisture. The Company intend conducting an experiment with a view to ascertain whether the same results can be secured on altogether dry land without artificial watering. They have at present 10 acres of land under the grass.

68. *Utilization of Bones as manure*.—The following figures exhibit the export of bones from Bombay during the eight years ending 1897-98:—

Year.	Quantity in tons.
1890-91	13,653
1891-92	16,281
1892-93	17,569
1893-94	19,458
1894-95	32,387
1895-96	33,018
1896-97	21,297
1897-98	21,447

The quantity exported during the year under report shows a small improvement over the previous year. Nearly 78 per cent. of the exports were taken by the United Kingdom, 17 per cent. by Germany and the remaining 5 per cent. by Belgium, France, Natal and Japan. Messrs. Coen & Co., of Hubli, supplied about 300 tons of bone meal and bone mixture against 450 tons during the previous 12 months for use on coffee plantations in North Mysore. The falling off is attributed to a scanty coffee crop and to the rising rate of exchange.

C.—IMPROVED AGRICULTURAL IMPLEMENTS.

69. In January 1898 a comparative trial was arranged for, in the Dhárwár District by the Deputy Director of Agriculture to demonstrate the capabilities of the Poona three-roller iron mill in comparison with the ordinary old-fashioned wooden mill, and a double squeeze three-roller iron mill made at Bellary. The result has been noticed in detail in the Annual Report on the Government

Experimental Farms. The trial clearly established that the Poona mill, though only doing three-fourths of the work it ordinarily does in the Poona district for want of expert assistance, was not only a labour-saving machine as compared with both the wooden and Bellary mills, but was considerably more effective at work. Whereas the Poona mill crushed in about 8½ hours 3,882 lbs. of cane and expressed 63 per cent. of juice at a cost in manual and bullock labour of Rs. 4-8-0, the wooden mill crushed in about 10 hours 2,343 lbs. of cane, expressing nearly 57 per cent. of juice at a cost Rs. 2-8-0, and the Bellary mill crushed in about 9½ hours 2,187 lbs. of cane and separated 63·8 per cent. of juice at a cost of Rs. 2-6-0. The amount of juice left unexpressed by the other mills, which the Poona mills could have expressed, represented a loss of 1 lb. of gul per 100 lbs. of cane crushed in the case of the Bellary mill and 2½ lbs. of gul in that of wooden mill. It was thus quite clear that the extra cost of the Poona mill could be easily recovered in a single season owing to its more effective work.

D.—MEASURES OF PROTECTION.

(1) Arboriculture.

70. No reports have been received as to the extension of fuel and fodder reserves.

(2) Extension of Communication.

71. During the year under report 54 miles of the Ahmadabad-Prantij Railway, the Jámnnagar Railway from Rajkot to Jámnnagar (50 miles), the first section of Rajpipla Railway (19 miles) and of the Tápti Valley Railway (about 40 miles) were opened for traffic. The construction of the remaining portions of the Ahmadabad-Prantij and Tápti Valley Railways is in progress.

(3) Irrigation.

72. In the Presidency Proper, the area irrigated from Government canals rose by about 7 per cent. as compared with last year. Thus the abnormal increase in area brought about during the famine of 1896-97 has been more than maintained, owing probably to cultivators having realized the advantages of helping their crops by irrigation. The work of constructing wells with the assistance of takávi advances was continued during the year, though on a smaller scale. In the year under report about Rs. 31,000 were spent in repairing 70 tanks, mostly in Belgaum and Dhárwár.

(4) Tagávi Advances.

73. The following statement compares tagávi advances made during the year ending 31st July last with those of the preceding year :—

Province.	1896-97.			1897-98.		
	Under the Land Improvement Loans Act No. XIX of 1883.	Under the Agriculturists' Loans Act No. XII of 1884.	Total.	Under the Land Improvement Loans Act No. XIX of 1883.	Under the Agriculturists' Loans Act No. XII of 1884.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Gujarát	25,665	28,906	54,571	4,950	31,159	35,109
Deccan	20,47,379	5,72,353	26,19,732	1,83,820	3,03,830	4,87,650
Karnátak	15,88,855	2,83,047	18,71,902	19,730	3,00,805	3,20,535
Konkan	70,660	30,704	1,01,364	13,730	5,522	19,252
Sind	1,15,450	86,375	2,01,825	29,674	34,367	64,041
Total	38,48,009	10,01,385	48,49,394	2,51,904	6,75,743	9,27,647

N.B.—The figures for 1896-97 are those published in the Jámábandi Reports.

These advances were made with unusual liberality during the year 1896-97, owing to the prevalence of widespread distress consequent on general failure

of crops principally in the Deccan and Karnátak. Their usefulness in a year of famine has already been commented upon in paragraph 52 of last year's report. During the year 1897-98 the allotment for takávi advances was considerably curtailed by the Government of India owing to financial pressure, and Government had accordingly to confine assignments to districts affected by the famine of the previous year. Thus no grants were made in the districts of Gujarát, the Konkan or Sind during the financial year 1897-98 and the amounts shown against these provinces relate only to advances made in the last quarter of the revenue year. The Collector of Ahmadabad considers that "the withdrawal of the grant has given a partial blow to the system." In Hyderabad it is reported that had the advances been made, the cultivators who depended on them would have been able to extend their operations in the rabi season and so recoup in a way the loss sustained during the unfavourable kharif season. In Shikárpur it is reported that "petty occupants and peasant proprietors were driven to borrowing from the Banias at exorbitant interest."

As is natural in the year immediately following a famine, the advances made to replace lost cattle and to purchase seed and fodder were considerably larger than those made for permanent improvement.

In the Deccan the advances amounted to Rs. 4,87,000; of the total, Ahmadnagar took 31 per cent., Poona 21·6 per cent., Sholápur 23 per cent., Sátára 8 per cent., Khándesh 10·7 per cent. and Násik 5·7 per cent. Most of the Collectors of the division speak highly of the benefits derived from the system. The Collector of Poona observes that had it not been for these advances many more of the cultivators would have been thrown on relief works at a time when the usurers held back money and assistance. The Collector of Sholápur (Mr. Pratt), however, observes that the effect of this system upon the cultivating classes will probably be to render them increasingly dependent upon Government to the detriment of their self-reliance and independence. He therefore thinks that the system should be in operation only under exceptional circumstances or in times of famine as a temporary palliative. In the Karnátak the advances amounted to Rs. 3,20,000, Bijápur taking 66 per cent., Dhárwár 31 per cent. and Belgaum only 3 per cent. In the last district the loans were confined to the three talukas affected by famine during the previous year. In Bijápur the advances helped the cultivators to re-establish themselves in cattle and other necessaries. In Dhárwár the Collector states that the system worked well and smoothly, and only fell short of efficiency in some degree owing to deficiency of establishment to deal with large transactions.

The above remarks refer to advances under both the Land Improvement Act and the Agriculturists' Loans Act.

Of the total advances under the Land Improvement Act, Rs. 1,72,000 or 68 per cent. were spent in the construction and repair of wells and about Rs. 80,900 or 32 per cent. in various other improvements, such as constructing and repairing embankments, eradicating weeds, and constructing and repairing canals in Sind.

Under the Agriculturists' Loans Act the total amount advanced came to Rs. 6,75,743; of this 85 per cent. was utilized in the purchase of seed and cattle, nearly Rs. 1,00,000 or 15 per cent. in the purchase of fodder. A further sum of Rs. 68,766 was given for maintenance under Section 143 (2) of the Famine Relief Code, Rs. 50,359 in Sátára, Rs. 16,045 in the Poona district, Rs. 2,216 in the dangi villages of Ahmadnagar and Rs. 146 in the Khálápur peta of Kolába.

For the most part, repayment of the advances is punctually made; but in parts of Sind (Hyderabad and Upper Sind Frontier districts) a few postponements had to be granted owing to the repeated failure of the crops. Similarly, collections had to be postponed in Ahmadnagar owing to the failure of the jowári crop, and in the South Deccan arrears have accrued owing to plague and owing to the season of 1897-98 being unfavourable.

There is reason to fear that the money is not always applied to the purposes for which it is advanced. In Násik, Mr. Ferozshah (District Deputy Collector) enquired into some 30 cases in the Dindori Taluka and found that in almost

every case the money had been misapplied either wholly or in part. Some had paid sowkars, others had traded in grain, and in one case marriage expenses had been met out of the loan. From Ahmadnagar and Sholapur also many cases of misapplication have been reported. In Belgaum, 24 cases of misapplication were found. Steps have been taken for the recovery of the money advanced in all these cases. In Poona and Dhárwár it was found that in some cases the money was not devoted wholly to the purpose for which it was granted, but the Collectors remark that it is only fair that a portion of the sum advanced, which would otherwise have had to be spent on wages, should be devoted to the maintenance of the agriculturist and his family if they carry on the work themselves.

CHAPTER VI.

AGRICULTURAL EDUCATION.

74. The Conference held in 1896 to consider the subject of agricultural education recommended that, with a view to encourage higher education in agriculture, the University should be asked to substitute a degree for the diploma, raising at the same time the standard for the examination, so that the question of employment of agricultural students in the Revenue Department might be greatly simplified. The University did not accept the proposal to substitute a degree for the diploma, but has revised the standard for the diploma, and Government have agreed to place the holders of the diploma in Agriculture under the revised standard on the same footing with the graduates for purposes of admission to and promotion in the Revenue Department. It is hoped that the agricultural classes at the College of Science, Poona, will revive before long under these favourable conditions.

CHAPTER VII.

PUBLICATION OF AGRICULTURAL INFORMATION.

A.—AGRICULTURAL STATISTICS.

75. The Imperial tables A, C and D were, as usual, submitted to Government for transmission to the Director General of Statistics. Table B (Prices) was omitted, as it is discontinued under Government of India's orders conveyed in Government Resolution No. 3846 of 13th May 1896, Revenue Department. Taluka and district registers in connection with Form E (Transfer of Property) are still under consideration. Table G of Agricultural Statistics was compiled for the first time in July last; it will be compiled every year in future. (*Vide* Government Resolution No. 3434, dated 26th May last, Revenue Department.)

The district agricultural returns were received late in the case of the nine

District.	Date of receipt.
Ahmadabad	20th September.
Sholapur	24th do.
Thána	26th do.
Ratnágiri	Do. do.
Broach	27th do.
Panch Maháls	29th do.
Kolába	1st October.
Surat	6th do.
Shikárpur	17th do.

districts noted in the margin. Five out of the nine are districts of the Northern Division, of which Surat was the latest. It has been repeatedly observed that the compilation of the statistical information required for insertion in the General Administration Report is delayed by the late submission of these returns.

Return No. I.—Details of Area.

76. This return shows the gross area of the Presidency inclusive of villages held on privileged tenures, but exclusive of feudatory and tributary States. In the Presidency Proper, as well as in Sind, the area is still approximate, as areas in unsurveyed tracts are returned from estimates.

In the Presidency Proper the gross area returned is larger by $13\frac{1}{2}$ square

District.	Square Miles.
Ahmadnagar	+ $4\frac{3}{4}$
Thána	+ $4\frac{1}{2}$
Kolába	+ $2\frac{3}{4}$
Sholápur	+ 2
Belgaum	- $1\frac{1}{2}$

miles. The marginally noted districts presented noticeable changes. The total increase is the net result of correction of mistakes, revision survey operations and settlement of boundary disputes.

In Sind the area on the whole differs by 24,500 acres or $38\frac{1}{2}$ square miles.

District.	Square Miles.
Shikárpur	+ 18
Upper Sind Frontier	+ $16\frac{1}{2}$
Hyderabad	+ 4

Important district variations are tabulated in the margin. In Shikárpur there was a large alluvial accretion, and alienated lands in Government villages were formed into two independent dehs. The first cause together with correction of settlement registers accounted for the increase in the Upper Sind Frontier. A portion of Government lands in

Hyderabad was newly surveyed and formed into a separate *deh* (village).

Area for which statistics are available.—In the Presidency Proper, the

District.	INCREASE (+) OR DECREASE (—) OF	
	Villages	Acres.
Kaira	—1	—1,168
Sholápur ... ..	...	+ 1,187
Belgaum	—1	—4,606
Dhárwár	—1	—732
Thána	+ 1	+ 3,249
Kolába... ..	...	+ 1,797
Ratnágiri ... ..	...	+ 4,467

number of villages decreased by 2, but the area increased by 4,289 acres. In Kaira one village of udhad jamábandi tenure with doubtful statistics was transferred to the head "non-available statistics." Three Inám villages in Sholápur were made khálsa and more area was brought to light. Owing to absence of village papers one village in Belgaum had to be transferred from the "statistics available" to the "non-available" head. A similar change in connection with the

Kundgol *chawrat-land* explains the decrease in Dhárwár. Revision survey operations brought about changes in Thána and Kolába. Ratnágiri has furnished agricultural statistics for an additional area of about 4,500 acres.

The area of available statistics in Sind underwent numerous changes. Twenty-two villages in Karáchi, one in the Upper Sind Frontier and 20 (19 Government and 1 Inám) in Shikárpur together with a large riverside area were transferred from the head "non-available" to "available statistics". Of the villages thus transferred, 10 in Karáchi have been brought under the survey system. One alienated village in this district and 6 in Hyderabad have been classed as Government villages on a partial resumption of land. Three new *dehs* (villages) have been formed in Hyderabad and two in Shikárpur. The Upper Sind Frontier and Shikárpur received large additional areas in the shape of land thrown out by the river. Thirty-six villages in the former and a large area in Thar and Párkar were transferred from the head "other Government" to "Government villages".

Non-reporting villages.—In the Presidency Proper 1,612 Government villages with an area of 5,998 square miles and $847\frac{1}{2}$ alienated villages with $2,110\frac{3}{4}$ square miles are not yet in a position to furnish accurate statistics of cultivation. The total number of non-reporting villages—Government and alienated—increased only by two in Kaira and Dhárwár as mentioned above. The Government villages are under special tenures and the alienated are all unsurveyed. In Sind the 42 non-reporting Government villages reported last year have begun to furnish statistics and the two alienated villages are reduced to one. The total area for which statistics are not available thus decreased from 4,609 to 21 square miles.

Return No. II.—Cultivated, *i.e.*, Occupied Area and Uncultivated, *i.e.*, Unoccupied Area.

77. The following table exhibits variations as compared with last year in areas under sub-heads of cultivated and uncultivated land. In Sind numerous changes were effected in the area of available statisticts. Variations in that province will therefore be noticed only in the briefest manner :—

Area in Acres (000 omitted).

Detail.	PRESIDENCY PROPER.			SIND.		
	1896-97.	1897-98.	Increase (+) or decrease (-) per cent.	1896-97.	1897-98.	Increase (+) or decrease (-) per cent.
A.—Cultivated Area—						
Gross cropped area	19,909	24,313	+22.1	3,391	4,065	+19.8
Cropped more than once	663	755	+13.9	165	263	+58.8
Net cropped area	19,246	23,558	+22.4	3,226	3,803	+17.9
Current fallows	10,539	6,300	-40.5	4,267	4,164	-2.4
Assessed	29,745	29,754	+0.03	7,172	7,237	+1.2
Unassessed	90	104	+15.5	321	710	+121.2
Total A.	29,835	29,858	+0.08	7,493	7,947	+6.3
B.—Uncultivated Area—						
Available for cultivation	Assessed ... 964	944	-2.1	848	760	-10.4
	Unassessed ... 668	597	-10.6	5,228	5,204	-0.4
Not available for cultivation.	Forest ... 7,160	7,263	+1.4	767	763	-0.5
	Others ... 5,004	4,973	-0.6	12,649	15,252	+20.6
Total B.	13,796	13,777	-0.1	19,492	21,079	+12.7
Grand Total	43,631	43,635	+0.009	26,985	29,046	+10.0

The "gross" and "net cropped area" in the Presidency each increased by

22 per cent. and that cropped more than once by 14 per cent. In Sind also all these

descriptions of area increased considerably.

The twice-cropped area more than doubled

itself. Variations in the cropped area are

shown district by district in the margin.

As a natural result of the favourable season

immediately following the famine period, the

cropped area expanded everywhere. The

noticeably large increase in the Deccan and

the Karnatak districts is, however, still below

the shrinkage recorded in the famine year.

Kaira is the only exception. In this district

the diminution in the cropped area is as-

cribed to deficient rainfall and greater atten-

tion paid to the registration of fallow. It

is worth noticing that though the necessity

of food-grains engendered by the scarcity

induced a considerable extension of cultiva-

tion as compared with the previous year, the

aggregate area actually cultivated did not

reach either the record of 1895-96 or the

average. The increase, therefore, appears

only in comparison with the large decrease reported in 1896-97. The area left

fallow shows in every district a decrease which corresponds with the increase

in the cropped area. Modifications brought about by causes other than the

seasonal ones are shown in column 4. The decreases given in this column

against Ahmadabad, Kaira, Násik and Poona are due to relinquishments or

forfeitures. In Belgaum the decrease is explained by the reduction in the gross

area already noticed. The increase in the Panch Maháls, Surat, Khándesh,

Bijápur, Dhárwár, Kánara and partly in Thána is due to new occupations.

Closer examination of these figures shows that all these newly occupied areas

District.	Area in Acres (000 omitted).		
	Net cropped area.	Current fallow.	Culti- vated, <i>i. e.</i> , occupied area.
1	2	3	4
Presidency Proper.			
Ahmadabad	+38	-43	-5
Kaira	-22	+19	-3
Panch Maháls	+12	-10	+2
Broach	+8	-8	...
Surat	+8	-7	+1
Khándesh	+140	-125	+15
Násik	+264	-266	-2
Ahmadnagar	+502	-502	...
Poona	+171	-173	-1
Sholápur	+651	-650	+1
Sátára	+36	-36	...
Belgaum	+234	-238	-4
Bijápur	+1,954	-1,062	+8
Dhárwár	+271	-264	+7
Thána	+5	-1	+4
Kolába	+5	-4	+1
Ratnágiri	+4	-1	+5
Kánara	+7	-6	+1
Sind.			
Karáchl... ..	+134	+52	+186
Hydrabad	+99	-32	+67
Shikárpur	+210	-81	+129
Upper Sind Frontier... ..	+68	-9	+47
Thár and Párkar	+76	-32	+44

were actually brought under tillage. In Sholápur, Kolába and Ratnágiri the increase in the occupied area is only apparent, as it corresponds to the increase in the gross area.

In all districts of Sind the cultivated area advanced largely beyond that of the previous year without showing corresponding decrease in the fallow area. In Hyderabad and Thar and Párkar new lands were occupied to a large extent. In the remaining three districts large additions to the area of available statistics noticed under Return No. I, explain the increase in the "net cropped area" as well as "current fallow".

The area cropped more than once increased by 92,000 acres or 14 per cent. The increase would have been larger still but for the deficiency of kharíf rain in the beginning of the season, owing to which some kharíf land in the eastern parts of the Deccan and the Karnátak, especially Ahmadnagar and Bijápur, was left unsown till the rabi season. In Sind the favourable inundation and plentiful rain left good moisture for the second crops. The twice-cropped area in this province expanded by 97,000 acres or 59 per cent.

78. The following table summarises the distribution of fallows under the six specified heads :—

Details of "current fallow" (percentages).

Province.	Total Fallow on occupied area.	FALLOW ON TOTAL FALLOW.						
		Fallow in rotation.	Grass land.	Grass-bound land.	Ráb land.	Land unsown on account of season.	Other Fallow.	
Gujarát ...	{ 1897-98 .	24.29	17.91	27.75	2.04	...	13.81	38.49
	{ 1896-97 .	25.43	19.49	22.64	1.87	...	15.18	40.82
Deccan ...	{ 1897-98 .	19.03	27.56	22.01	4.15	1.26	8.68	36.34
	{ 1896-97 .	30.30	14.45	12.55	2.21	0.62	54.37	15.80
Karnátak...	{ 1897-98 .	16.08	9.82	24.87	15.53	...	12.64	37.14
	{ 1896-97 .	48.29	3.03	6.88	3.96	...	76.87	9.26
Konkan ...	{ 1897-98 .	46.57	33.91	19.62	5.12	28.96	0.62	11.77
	{ 1896-97 .	47.36	35.03	18.05	4.26	29.17	1.77	11.72
Total ...	{ 1897-98 .	21.10	23.59	23.11	6.19	5.42	8.94	32.75
	{ 1896-97 .	35.49	13.06	12.16	2.99	3.21	52.93	15.65

With the failure of rains in 1896 the fallow area nearly doubled, but with the return of favourable seasons the total fallow decreased in all parts of the Presidency, especially in the Deccan and the Karnátak. In Gujarát the grass land increased 5 per cent. at the expense of fallow under the remaining heads. It is probable that scarcity of fodder induced some cultivators to devote a little more area to grass. In the Konkan the changes are not very remarkable, but in this province also grass lands showed some increase corresponding with decrease under fallow due to rotation and that due to unfavourable season.

79. *Uncultivated, i. e., unoccupied Area.*—The unoccupied area on the whole did not show any very wide fluctuation. The area was somewhat lessened by the new occupations already noticed in Khándesh, Dhárwár, Bijápur, Belgaum, Panch Maháls, Surat, Kánara and Thána, but the reduction was partly made up by relinquishments in Ahmadabad, Kaira, Násik and Poona, and partly by the increased gross area brought to account in Kolába and Ratnágiri.

As to the land available for cultivation, the assessed waste decreased by 20,000 and unassessed by 71,000 acres. The margin for fresh occupations was, therefore, narrowed by 91,000 acres.

The area under forest increased by 104,000 acres, or 1·4 per cent. Large

District.			Variations in acres (000 omit- ted).
Khándesh	...	...	+51
Thána	...	...	+26
Kánara	...	...	+23
Dhárwár	...	...	+3
Kolába	...	...	+2
Ahmadabad	...	...	-3

noticeable variations are given in the margin. In Khándesh and Dhárwár, forest area received a further addition by the afforestation of un-assessed waste land. In Thána and Kaira, area under the head "other" has been treated as forest. The increase in the gross area accounts for the increase in Kolába. Some disforestation was effected in Ahmadabad.

80. The table given below (which is inserted in every annual report) endeavours to show, by combination of the information contained in tables I and II, the distribution of cultivation and the margin of land left for the expansion of cultivation in the different districts. In the Presidency Proper, the area for which statistics are not available has remained nearly the same. It has already been noticed that the pressing demand for food-grains created by the previous year's famine caused an extension of the net cropped area by 9·9 per cent., giving a corresponding decrease under fallow. In Sind the area of non-available statistics almost disappeared, being reduced from 9·9 to 0·08 per cent. Large areas in this province have been transferred from the head "non-available" to "available statistics". Other changes are not remarkable:—

No.	District.	Percentage on gross area, of areas for which statistics are not available.	PERCENTAGE ON NET AREA FOR WHICH STATISTICS ARE AVAILABLE, OF AREAS.						
			Cultivated, i.e., occupied.		Uncultivated, i.e., unoccupied.		Forest.		
			Net cropped.	Current fallow.	Available for cultivation.	Not avail- able for cultivation.			
A.—PRESIDENCY PROPER.									
<i>I.—Gujarát.</i>									
1	Ahmadabad	...	11·1	53·0	19·5	5·6	21·3	0·6	
2	Kaira	...	8·5	68·4	10·0	9·1	12·5	...	
3	Panch Maháls	...	12·7	39·8	16·9	12·0	8·8	22·5	
4	Broach	...	2·0	61·8	9·4	2·4	26·4	...	
5	Surat	...	2·4	46·6	26·2	4·9	17·6	4·7	
Average ...			{ 1897-98 ...	8·2	53·7	17·2	6·5	18·2	4·4
			{ 1896-97 ...	8·2	52·9	18·1	6·4	18·1	4·5
<i>II.—Deccan.</i>									
6	Khándesh	...	24·3	59·4	5·1	9·8	11·3	14·4	
7	Násik	...	4·2	51·3	13·2	4·2	9·3	22·0	
8	Ahmadnagar	...	2·4	62·8	12·7	1·2	10·1	13·2	
9	Poona	...	1·9	55·4	18·7	0·3	12·1	13·5	
10	Sholápur	...	...	67·1	17·7	0·5	8·6	6·1
11	Sátára	...	6·9	53·2	20·9	0·8	9·6	15·5	
Average ...			{ 1897-98 ...	9·0	58·3	13·7	3·4	10·3	14·3
			{ 1896-97 ...	8·9	50·1	21·8	3·7	10·3	14·1
<i>III.—Karnátak.</i>									
12	Belgaum	...	5·6	61·0	14·6	2·5	6·6	15·3	
13	Bijápur	...	0·3	72·1	15·4	1·8	5·6	5·1	
14	Dhárwár	...	2·6	72·4	9·2	2·6	7·6	8·2	
Average ...			{ 1897-98 ...	2·7	68·9	13·2	2·2	6·5	9·2
			{ 1896-97 ...	2·6	42·4	39·6	2·5	6·4	9·1

No.	District	Percentage on gross area, of areas for which statistics are not available.	PERCENTAGE ON NET AREA FOR WHICH STATISTICS ARE AVAILABLE, OF AREAS,					
			Cultivated, i.e., occupied.		Uncultivated, i.e., unoccupied.		Forest.	
			Net cropped.	Current fallow.	Available for cultivation.	Not available for cultivation.		
A.—PRESIDENCY PROPER —continued.								
IV.—Konkan.								
15	Thána ...	3.1	20.4	21.2	5.0	20.5	32.9	
16	Kolába ...	3.5	29.9	24.7	2.2	21.5	21.7	
17	Ratnágiri ...	82.7	27.4	35.4	1.9	33.6	1.7	
18	Kánara ...	...	9.3	3.9	2.1	5.7	79.0
Average... { 1897-98 ...			25.6	18.5	16.1	3.1	15.9	46.4
Average... { 1896-97 ...			25.6	18.2	16.4	3.1	16.6	45.7
Average A. { 1897-98 ...			10.6	54.0	14.4	3.5	11.4	16.7
Average A. { 1896-97 ...			11.6	44.1	24.2	3.8	11.5	16.4
B.—SIND.								
19	Karáchi ...	...	6.5	6.1	12.4	73.5	1.5
20	Hyderabad ...	...	17.8	23.0	36.5	20.2	2.5
21	Shikárpur ...	...	20.7	16.8	26.2	30.5	5.8
22	Upper Sind Frontier ...	0.8	25.0	26.4	21.6	24.3	2.7	
23	Thar and Párkar ...	...	8.9	12.5	13.5	63.4	1.7
Average B. { 1897-98 ...			0.08	12.7	13.9	19.9	51.0	2.5
Average B. { 1896-97 ...			9.9	11.9	15.8	22.5	46.9	2.9
Average for the Presidency { 1897-98 ...			6.6	37.2	14.2	10.2	27.5	10.9
Average for the Presidency { 1896-97 ...			10.9	31.8	21.3	10.9	24.9	11.1

Return No. III.—Crops.

81. The main features of the season and harvest of the year are described elsewhere in this report. The following table shows the effect of the season on the area sown. In the Presidency Proper, with the exception of paddy which exhibited only a trifling decrease, the area under all cereals and all pulses increased, the expansion under jowári, bájri, wheat and pulses being very remarkable. The increase has been already traced to the urgent demand for food-grains following the scarcity of the previous year. Under non-food crops, oil-seeds occupied a larger area, but cotton cultivation was curtailed. The decrease under cotton is attributed to the extended area placed under food crops. Sugarcane showed a decrease of 18 per cent., but the area under that crop is comparatively small. There is no variation under tobacco. In Sind almost all cereals, gram and miscellaneous pulses and oil-seeds showed larger areas, the increase under wheat, oil-seeds and paddy being conspicuous. The area under cotton and tobacco underwent contraction. The latter area is, however, insignificant. Plentiful water-supply from favourable inundation and good moisture for the rabi crops account for the general increase in the cropped area.

Table to show effect of season on area sown.
(Area in Acres, 000 omitted.)

Crops.	PRESIDENCY PROPER.			SIND.		
	1896-97.	1897-98.	Increase (+) or decrease(-) per cent.	1896-97.	1897-98.	Increase (+) or decrease(-) per cent.
Jowári	5,430	7,906	+45.6	742	741	0.1
Bájrí	3,918	4,777	+21.9	750	806	+7.5
Paddy	1,666	1,653	-0.8	734	893	+22.5
Wheat	1,033	1,409	+36.4	389	573	+47.3
Others	1,539	1,615	+4.9	15	33	+120.0
Total, Cereals ...	13,586	17,360	+27.7	2,630	3,052	+16.0
Tur	448	627	+39.9	...	...	...
Gram	434	591	+36.2	39	66	+69.2
Others	1,248	1,472	+17.9	145	200	+37.9
Total, Pulses ...	2,130	2,690	+26.3	184	266	+44.5
Tobacco	72	72	...	11	9	-18.2
Sugarcane	66	54	-18.1	3	3	...
Oil-seeds	1,178	1,450	+23.1	347	498	+43.5
Cotton	2,415	2,222	-7.9	122	107	-12.3
Food Crops, Total ...	15,996	20,282	+26.8	2,856	3,366	+17.8
Non-food Crops, Total ...	3,914	4,031	+2.9	535	698	+30.5
Total, Crops ...	19,910	24,313	+22.1	3,391	4,064	+19.8

Jowári and Bájrí.—The marginal table shows fluctuations in the cultivation

District.	ACRES (000 OMITTED).			
	Jowári.		Bájrí.	Net variation.
	Kharif.	Rabi.		
Ahmadabad	+39	+1	+19	+59
Kaira	-20	-1	+16	-5
Panch Maháls ... ..	...	+1	+1	+2
Broach	+3	-2	+4	+4
Surat	+24	+1	+1	+26
Khándesh	+163	+8	+189	+345
Násik	+18	+49	+217	+231
Ahmednagar	+1	+201	+203	+405
Poona	-123	+195	+20	+87
Sholápur	+8	+421	+54	+433
Sátára	+14	+95	-58	+51
Belgaum	+75	+77	+9	+161
Bijápur	+281	+876	+182	+1,339
Dhárwár	+142	-47	+2	+97
Total ...	+809	+1,867	+859	+3,335

of jowári (both kharif and rabi) and bájrí. Except in the solitary instance of Kaira, there is in all districts a marked increase, which is most prominent in the Deccan and Karnátak districts. The previous year's famine exhausted the grain and fodder stocks of the Presidency, and the pressing demand for these induced the cultivators to put as much area under the millets as the kharif-sowing and the rabi rains allowed. In Kaira the decrease is attributed for jowári. Much of the decrease

under jowári was, however, made up by the extended cultivation of bájrí, for which the light rain in the commencement was everywhere admirably adapted.

District.	Acres (000 omitted).
Ahmadabad	-18
Kaira	-35
Panch Maháls	-4
Broach	+2
Surat	-1
Násik	+1
Ahmednagar	+2
Poona	+2
Sholápur	+7
Sátára	+3
Belgaum	+3
Bijápur	+6
Dhárwár	+8
Thána	+8
Kolába	+3
Ratnágiri	+2
Kánara	+7

Paddy.—The contraction noticed in the last report was continued, and there was a further fall of 13,000 acres or about one per cent. The reduction is mainly confined to the two northern districts of Gujarát, each of which reported a decrease of 25 per cent. Insufficient rain at the time of sowing forced the cultivators in Ahmadabad to devote much of the rice area to other crops. In Kaira the decrease remained uncompensated. Outside Gujarát the cultivation of rice showed small increases.

District.	Acres (000 omitted).
Ahmadabad	+32
Kaira	+8
Panch Mahals	+4
Broach... ..	-1
Surat	+7
Khándesh	-11
Násik	+29
Ahmadnagar	+90
Poona	+24
Sholapur	+16
Sátára... ..	+13
Belgaum	+37
Bijápur	+118
Dhárwar	+10

Crop.	Acres (000 omitted).
	Presidency Proper.
Kodra... ..	+23
Rágt (Náchni) ... ..	...
Rála (Káng)	+21
Vari (Sáva)	+52
Barley... ..	+9
Maize	-23
Banti (Barti)	+16
Bhadli	+4
Amaranth	+1
Others	-8

Wheat.—Aggregate increase of 376,000 or 36 per cent. Last year the wheat area underwent an abnormal shrinkage of 763,000 acres owing to the general failure of the late rains. The year under report made up only half of this contraction, for the cultivators being anxious to secure early supply of food and fodder devoted more area to jowári, bájri and other grains. The wheat crop, therefore, only partially recovered its normal acreage. In Broach and Khándesh, continuous and excessive rain in the sowing season prevented the cultivation from showing any increase.

Other Cereals.—The reasons already mentioned under the important cereals governed the cultivation of the minor cereals. All of them, except maize and "others," increased sensibly. The decrease under maize was mostly confined to the Deccan and the Karnátak districts, where it had been extensively grown under irrigation in the previous year to meet the scarcity of fodder.

Pulses.—There was a general increase under all pulses. Tur shared the

District.	Acres (000 omitted).	District.	Acres (000 omitted).
Tur.		Gram.	
Ahmadabad	+1	Ahmadabad	-1
Kaira	+3	Kaira	+6
Panch Mahals	+1	Panch Mahals	+12
Broach... ..	+3	Broach... ..	+1
Surat	+8	Khándesh	-2
Khándesh	-2	Násik	+4
Násik	+13	Ahmadnagar	+23
Ahmadnagar	-4	Poona	+23
Poona	+6	Sholapur	+13
Sholapur	+42	Sátára	+16
Sátára	+3	Belgaum	+13
Belgaum	+20	Bijápur	+45
Bijápur	+65	Dhárwar	-8
Dhárwar	+21		

expansion of the millets with which it is grown as a principal raw crop and made up nearly three-fourths of the contraction noticed in the last report. Of the total expansion under tur, 60 per cent. was secured in Sholapur and Bijápur only. The rabi rains favoured the cultivation of gram. The area increased 157,000 acres or 36 per cent. Bijápur and Ahmadnagar contributed 50 per cent. of the increase.

Tobacco.—The extent of cultivation remained the same as in the previous

District.	Acres.
Ahmadabad	-774
Kaira... ..	-9,481
Broach... ..	-1,011
Khándesh	+8,241
Násik... ..	+773
Ahmadnagar	+1,950
Sholapur	+1,161
Sátára... ..	+8,033
Belgaum	-1,094
Bijápur	+1,619

year. The contraction in Ahmadabad, Kaira, Broach and Belgaum was covered by the larger area reported from most of the Deccan districts and Bijápur. The previous year's stock remaining unsold in the hands of the cultivators is said to have discouraged cultivation in Gujarát. In the Deccan the increase has been attributed partly to high prices consequent on restricted importations and partly to favourable sowing rain.

District.	Acres.
Surat	-557
Násik	-1,697
Ahmadnagar	-1,381
Poona	-2,391
Sholapur	-1,448
Sátára	-1,791
Belgaum	-1,434
Dhárwar	-1,179

Sugarcane.—The area under this crop showed a total decrease of 12,000 acres or 18.1 per cent. The chief cause assigned is that the food-grain crops occupied fields which would otherwise have been taken up by cane. In places want of sufficient water in canals and wells and the inability of the cultivators impoverished by famine to meet the high cost are also said to have restricted the cultivation. It will be seen from the figures given here that the area in 1897-98 was the lowest on record during the last decade. This decrease began in 1895-96 and has continued with oscillations. The area stood high in 1888-89, after which it fell for four years and again rose for two years, again falling during the last three years. This character of the fluctuations makes it difficult to draw any definite conclusion as to the tendency of the cane cultivation.

Area of Sugarcane.

Year.	Acres.
1888-89	88,804
1889-90	87,733
1890-91	83,225
1891-92	75,122
1892-93	68,043
1893-94	83,457
1894-95	84,600
1895-96	71,165
1896-97	66,179
1897-98	64,660

Oil-seeds.—With the exception of sesame and groundnut, which together

Crop.	Acrea 000 omit- ted.
	Presidency Proper.
Sesame	-28
Linseed	+89
Castor	+10
Safflower	+340
Rapeseed ... ..	...
Niger	+29
Groundnut	-61
Others	+11

suffered a shrinkage of 77,000 acres owing to the large extension of food-grain crops, all other seeds show extended cultivation, the extension amounting to 272,000 acres or over 23 per cent. The increase, however, is chiefly apparent owing to the heavy fall in the previous year, the total area under oil-seeds being only a little above of two-thirds of that of 1895-96; even the high increase under safflower is just sufficient to bring up the area under the seed to the normal. Some of these crops are important articles of trade and are specially noticed below:—

Sesame.—The total area is 26,000 acres or 8 per cent. below that of the previous year. The decrease occurred in the Deccan and the southern districts of Gujarát. In the Deccan the scantiness of the early rains and the desire of the people to secure food as early as possible restricted the area under sesamum. In Surat and Broach the decrease is due to the heavy September rain. Contractions which occurred in these two provinces were to some extent made up by extended sowings in the Karnátak caused by favourable sowing rain.

Linseed.—Compared with the very low area of 1896-97, the crops showed an advance of 59,000 acres or 38 per cent. The increase is credited to Bijápur, Násik and Sholápur. In all these districts, however, the area is still considerably below what it was in 1895-96. Elsewhere in the Deccan and the Karnátak the area declined even below the record of the previous year. This general decrease is due to larger area under food crops.

Groundnut.—Groundnut also deserves notice. Its cultivation receded from 149,000 to 98,000 acres, the decrease appearing in all groundnut-growing districts, especially in Sholápur and Sátára. Deficiency of sowing rain, larger area covered by food crops, deficiency of canal and well water and the failure of the previous year's crops, all combined to limit the area of this oil-seed. The previous five years' figures show that it is steadily declining. In 1897-98 it was only half of what it was in 1893-94. This decline may be due to the decreasing demand for export which is said to be due to the substitution of cotton-seed oil for groundnut oil.

District.	Acrea (000 omit- ted).
Ahmedabad	-44
Broach	+18
Surat	-32
Khándesh	-328
Násik	-49
Ahmednagar	-73
Belgaum	-13
Bijapur	+134
Dhárwár	+95

Cotton.—Cotton followed other non-food crops. It decreased in area by 193,000 acres or about 8 per cent. The decrease is almost general, food crops encroaching upon the cotton fields. Khándesh, which reported nearly 38 per cent. of the total area, showed the largest shrinkage. Broach, Bijápur and Dhárwár, on the other hand, exhibit some expansion. But in these districts also, though the light rain early in the season favoured cotton cultivation, the area did not approach its normal extent.

Potato.—The crop was raised over 8,000 acres. The area is nearly the lowest on record; Poona, which reported 79 per cent. of the total area, showed an increase of over 700 acres, but it was counterbalanced by smaller area in Ahmadnagar (—579), Dhárwár (—336) and Sátára (—111 acres). Owing to the ring disease in potato it is being replaced in the Poona district by the less risky crop of onions. The cultivation of the latter is also encouraged by an export demand.

Green Fodder.—Lucerne and hot-weather jowári are the important fodder crops. During the year 1896-97 the areas under both these crops rose suddenly on account of the scarcity of fodder then prevailing. Contrasted with the large areas then reported, those of 1897-98 show a considerable decline. But they are still higher than those of 1894-95 or 1895-96. Lucerne is chiefly grown in Ahmednagar (1,588 acres), Poona (472 acres) and Thána (169 acres). Hot-weather jowári decreased everywhere, but remarkably in the Deccan and the Karnátak districts, which cultivated it on a large scale during the period of scarcity.

Kharif and Rabi Crops.—The details given in the subjoined table show variations under kharif and rabi, cereals and pulses, of the Presidency, exclusive of Sind, and give the main features of the season:—

Year.	AREA IN ACRES (000 OMITTED).			
	Kharif.		Rabi.	
	Cereals.	Pulses.	Cereals.	Pulses.
1896-97 ...	9,494	1,532	4,092	598
1897-98 ...	11,044	1,907	6,316	783
Variation ...	+1,550	+375	+2,224	+185

83. Below are the usual tables showing the distribution of crops. Statement A shows the distribution of the principal crops in each district. Statement B shows the proportion which the area of each crop in each district holds with respect to the gross area of that crop in the Presidency Proper. Sind is included in Statement A. A separate statement similar to B is prepared for Sind with percentages shown on the gross area of Sind :—

A.—Distribution of Crops—Percentages on District Areas.

No.	District.	FOOD CROPS.								NON-FOOD CROPS.			TOTAL.		
		Cereals.							Pulses.	Others.	Cotton.	Oil-seeds.	Others.	Food Crops.	Non-food Crops.
		Jowári.	Bájri.	Paddy.	Wheat.	Coarse Grains.	Others.	Total.							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A.—PRESIDENCY PROPR.															
<i>I.—Gujarát.</i>															
1	Ahmedabad	33	13	5	17	5	2	65	10	1	20	3	1	76	24
2	Kaira	8	28	15	3	25	1	80	12	1	1	3	4	93	7
3	Panch Maháls	2	10	14	8	14	28	71	18	..	..	9	2	89	11
4	Broach	27	2	4	9	2	..	44	11	1	41	2	1	66	44
5	Surat	26	1	20	6	9	..	62	17	2	13	5	1	81	19
	Average .. {1897-98 ..	18	12	10	9	10	5	64	12	1	16	4	2	78	22
	{1896-97 ..	18	11	12	6	10	4	63	11	1	19	4	2	75	25
<i>II.—Deccan.</i>															
6	Khándesh	21	27	1	5	1	..	55	11	..	28	5	1	66	34
7	Násik	6	47	3	11	8	1	76	13	1	..	9	1	80	10
8	Ahmadnagar	36	37	..	6	2	..	81	10	1	..	7	1	92	8
9	Poona	40	30	4	4	4	..	82	9	1	..	7	1	93	6
10	Sholápur	61	13	1	2	1	1	79	9	1	..	9	2	89	11
11	Bátára	34	24	3	3	6	1	78	17	2	1	5	2	92	8
	Average .. {1897-98 ..	32	30	2	5	3	1	73	11	1	7	7	1	85	15
	{1896-97 ..	29	29	2	4	3	1	68	11	2	11	7	1	81	19
<i>III.—Karnátak.</i>															
12	Belgaum	41	9	6	5	8	1	70	14	1	8	4	3	85	15
13	Bijápur	61	11	..	5	1	..	78	7	..	7	8	..	85	15
14	Dhárwát	32	..	7	10	8	..	57	13	..	22	5	8	70	30
	Average .. {1897-98 ..	46	7	4	7	3	..	69	11	..	12	6	2	80	20
	{1896-97 ..	40	6	7	6	7	1	67	11	1	15	4	2	79	21
<i>IV.—Konkan.</i>															
15	Thána .. .. .	..	..	63	..	20	..	83	6	2	..	3	1	96	4
16	Kolába .. .. .	..	..	61	..	31	..	82	6	1	..	1	..	99	1
17	Ratnágiri .. .. .	..	..	40	..	38	..	78	10	5	..	5	2	93	7
18	Kánara .. .. .	..	..	78	..	3	..	81	3	9	..	..	7	93	7
	Average .. {1897-98 ..	..	..	65	..	22	..	87	6	8	..	2	2	96	4
	{1896-97 ..	..	..	65	..	22	..	87	6	8	..	2	2	96	4
	Average A .. {1897-99 ..	32	10	7	6	6	1	71	11	1	9	6	2	83	17
	{1896-97 ..	27	20	8	5	7	1	69	11	1	12	6	2	80	20
B.—SIND.															
19	Karáchi	21	4	36	11	..	2	74	5	2	..	13	6	81	19
20	Hyderabad	13	29	22	7	..	1	71	3	1	7	14	4	75	25
21	Shikárpur	26	1	21	20	..	1	78	11	1	..	9	1	90	10
22	Upper Sind Frontier	37	8	5	12	..	1	63	11	1	..	25	..	75	25
23	Thar and Pákar	2	57	21	3	..	..	83	4	..	4	3	1	87	13
	Average .. {1897-98 ..	18	20	22	14	..	1	75	7	1	3	12	2	83	17
	{1896-97 ..	23	22	22	12	..	..	78	5	1	4	10	2	84	16
	Average for the Presi- {1897-98 ..	30	20	9	7	5	1	72	10	1	8	7	2	83	17
	dency. {1896-97 ..	27	20	10	6	6	1	70	10	1	11	6	2	81	19

B.—Distribution of Crops—Percentages shown on the Area of the Presidency Proper.

No.	District.	FOOD CROPS.							NON-FOOD CROPS.					TOTAL.	
		Cereals.							Pulses.	Others.	Cotton.	Oil-seeds.	Others.	Food Crops.	Non-food Crops.
		Jowari.	Bajri.	Paddy.	Wheat.	Coarse Grains.	Others.	Total.							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<i>I—Gujarat.</i>															
1	Ahmadabad ...	3.4	8.2	8.3	14.2	4.0	12.4	4.4	4.5	3.9	10.7	2.6	8.1	4.4	7.3
2	Kaira ...	0.7	3.8	6.1	1.0	12.3	8.3	8.1	3.0	2.8	0.3	0.9	7.4	3.1	1.1
3	Panch Mahals ...	0.1	0.9	8.7	0.9	4.4	43.6	1.7	2.0	0.5	...	2.6	1.9	1.9	1.1
4	Broach ...	1.9	0.3	1.3	3.0	0.7	...	1.5	2.3	2.0	10.5	1.0	1.2	1.8	0.3
5	Surat ...	1.8	0.2	6.8	2.2	3.6	0.1	1.9	8.4	8.3	3.2	2.0	1.1	2.1	2.6
	Total ... { 1897-98	7.9	9.4	20.7	22.5	25.0	64.2	12.6	16.1	12.5	24.7	9.1	14.7	13.0	18.2
	1898-97 ...	10.6	9.2	24.1	25.8	25.3	57.0	15.3	17.1	12.5	25.1	11.3	19.8	15.5	20.5
<i>II—Deccan.</i>															
6	Khandesh ...	7.9	17.2	1.5	10.7	2.1	4.8	9.0	12.4	7.4	39.1	10.2	10.2	9.9	25.6
7	Nasik ...	1.4	18.4	8.4	14.7	10.7	3.2	8.1	9.0	8.8	0.4	11.8	4.2	8.8	4.8
8	Ahmednagar ...	13.2	20.4	0.8	10.7	8.4	3.0	14.4	9.5	6.8	0.1	13.1	6.8	12.0	6.8
9	Poona ...	0.9	12.4	4.2	5.2	5.1	4.1	9.2	6.5	13.3	...	10.0	4.1	8.8	4.0
10	Solapur ...	15.6	6.4	1.2	2.8	0.6	7.1	9.1	8.5	5.0	0.1	18.2	9.3	8.7	5.6
11	Satara ...	7.1	8.5	2.8	8.8	9.0	8.6	7.0	40.8	12.1	0.2	6.0	10.3	7.6	3.2
	Total ... { 1897-98	54.1	82.8	13.9	47.0	31.5	30.3	55.4	54.9	52.4	83.9	64.3	44.9	55.3	48.6
	1898-97 ...	59.9	84.5	13.0	49.7	30.7	30.0	57.2	58.5	57.4	50.3	73.8	40.1	57.4	50.8
<i>III—Karnatak.</i>															
12	Belgaum ...	9.1	3.2	7.0	6.2	10.2	4.8	7.1	9.1	9.1	6.6	4.4	14.8	7.4	6.6
13	Bijapur ...	20.1	6.0	0.6	8.9	1.0	1.0	11.7	6.9	3.3	8.1	13.5	3.0	11.0	9.6
14	Dharwar ...	5.8	0.1	9.5	14.5	11.5	...	7.0	10.3	5.7	21.7	6.9	15.1	7.4	15.8
	Total ... { 1897-98	35.0	9.3	17.1	29.0	23.6	5.3	25.8	26.3	18.1	36.4	24.8	32.9	25.8	31.9
	1898-97 ...	29.5	6.3	10.1	24.5	22.9	6.9	19.8	21.8	10.3	24.6	12.8	31.6	19.9	21.6
<i>IV—Konkan.</i>															
15	Thana ...	...	...	18.7	...	6.6	...	2.3	1.1	3.4	...	0.9	2.0	3.2	0.5
16	Kolaba ...	...	...	14.9	...	9.4	...	2.1	0.8	1.2	...	0.4	0.2	2.0	0.2
17	Ratnagiri ...	...	...	3.1	...	3.6	...	0.6	0.5	2.8	...	0.5	0.9	0.6	0.2
18	Kanara ...	...	...	11.6	...	0.5	0.2	1.2	0.3	9.6	...	...	4.4	1.1	0.4
	Total ... { 1897-98	...	...	48.3	...	19.9	0.2	6.2	2.7	17.0	...	1.8	7.5	5.9	1.3
	1898-97 ...	...	...	46.8	...	21.1	0.1	7.7	3.1	14.0	...	2.1	8.5	7.2	1.4
		100	100	100	100	100	100	100	100	100	100	100	100	100	100

B.—Distribution of Crops—Percentages shown on the Area of Sind.

No.	District.	FOOD CROPS.							NON-FOOD CROPS.					TOTAL.	
		Cereals.							Pulses.	Others.	Cotton.	Oil-seeds.	Others.	Food Crops.	Non-food Crops.
		Jowari.	Bajri.	Paddy.	Wheat.	Coarse Grains.	Others.	Total.							
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Karachi S.	17.6	8.2	25.4	11.8	32.9	33.8	15.2	12.5	29.9	0.6	16.1	38.0	15.1	16.7
2	Hyderabad	15.6	84.6	21.5	11.9	15.7	22.5	22.6	9.5	27.9	65.7	27.9	36.3	31.7	34.8
3	Shikarpur...	47.3	2.3	29.2	63.3	39.4	30.1	31.9	43.6	33.3	3.9	21.9	13.3	33.3	18.0
4	Upper Sind Frontier	22.0	4.7	2.7	6.9	6.3	12.1	9.3	17.8	4.7	0.8	22.0	1.4	9.8	10.0
5	Thar and Parkar	1.5	55.2	18.2	4.1	5.8	1.5	21.1	11.6	4.2	22.0	12.1	11.0	20.1	14.5
	Total 1897-98	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Outturn of Crops.

84. The following table gives the reported anna valuation of the outturn of the principal crops in each district. The valuation (by Mamlatdars) purports to conform to the standard prescribed in Government Resolution No. 725, dated 1st February 1898, Revenue Department, by which a normal crop is designated as a 12-anna crop. The table must, however, be taken as representing a merely approximate estimate.

Approximate Anna Valuation of Principal Crops in each District, 1897-98.

No.	District.	AVERAGE ANNA VALUATION.									
		Jowári.	Bájrí.	Paddy.	Wheat.	Kodra.	Ráji.	Vari.	Tur.	Gram.	Cotton.
<i>Gujarát.</i>											
1	Ahmadabad	9	11	8	11	10	9	10	9	10	11
2	Kaira	10	14	8	10	12	12	13	12	10	8
3	Panch Maháls	*6	9	8	5	8	6	7	8	7	4
4	Broach	9	9	8	8	8	...	...	8	...	9
5	Surat	9	9	11	9	10	11	...	10	...	10
<i>Deccan.</i>											
6	Khándesh	14	13	12	11	13	14	6	11	11	12
7	Násik	9	12	12	10	...	13	11	11	12	7
8	Ahmadnagar	4	10	11	9	5	12	10	4	9	3
9	Poona	7	9	11	9	10	11	10	6	11	4
10	Sholápur	7	6	6	10	3	6	4	4	8	...
11	Satára	10	10	14	10	5	12	11	6	9	...
<i>Karnátak.</i>											
12	Belgaum	10	10	12	12	6	10	11	12	9	5
13	Bijápur... ..	6	6	6	6	2	3	3	6	8	4
14	Dhárwar	9	7	11	8	6	10	10	7	8	6
<i>Konkan.</i>											
15	Thána	12	...	15	12	15	15	15	10	10	...
16	Kolába ... ..	...	...	11	...	11	11	11	9	6	...
17	Ratnágiri ... ..	...	...	10	...	10	10	9	9	4	...
18	Kánara ... ..	...	...	11	...	...	8	...	...	...	...
<i>Sind.</i>											
19	Karáchi	9	9	10	8	...	9	...	...	7	8
20	Hyderabad	7	8	11	10	...	...	...	...	10	7
21	Shikárpur	8	8	9	9	...	...	...	...	7	8
22	Upper Sind Frontier	9	9	9	9	...	9	...	...	6	10
23	Thar and Párkar	8	8	11	8	...	...	...	...	...	6

* Maize.

Note.—In the above table, valuations are calculated on the standard by which 12 annas represent the normal crop.

In the eastern parts of the Deccan and the Karnátak districts the yield of kharíf crops was considerably reduced below the normal standard on account of deficient rainfall in July and August. Elsewhere it was good. The yield of rabi crops everywhere suffered from some want of moisture, as the rains ceased rather early in October.

85. *Fruit Trees.*—Increase is reported under all important fruit trees; that under cocoanut, jack, mango and date-palm being noticeably large. The increases do not necessarily show altogether new growths. It is likely that trees which were excluded during the previous year for being under the fruit-bearing age, were included in the year under report on account of their commencing to fruit. The enumeration must, however, be taken as a mere approximation. Trees in forests and village sites are not included in this enumeration.

NUMBER OF FRUIT TREES.

(000 omitted.)

No.	Province.	Mango.	Tamarind.	Jack.	Cocoanut.	Toddy-palm.	Date-palm.
1	Gujarát	558	126	4	8	243	520
2	Deccan	928	71	12	11	...	159
3	Karnátak	396	114	23	75	...	999
4	Konkan	581	44	228	1,832	99	15
Total for the { 1897-98 .		2,463	355	267	1,926	342	1,693
Presidency. { 1896-97 .		2,429	348	218	1,787	330	1,661
		+34	+7	+49	+139	+12	+32
Sind... { 1897-98 .		214	...	...	1	...	152
... { 1896-97 .		207	...	...	1	...	157
		+7	...	...	...	...	—5
Grand Total . { 1897-98 .		2,677	355	267	1,927	342	1,845
... { 1896-97 .		2,636	348	218	1,788	330	1,818
		+41	+7	+49	+139	+12	+27

The enumeration includes an estimate of trees of special local value in particular districts as given in the following table:—

Trees of special local importance for 1897-98.

Trees and Districts.		Number.	Trees and Districts.		Number.
1.—Mowra (<i>Bassia latifolia</i>).			5.—Fig (<i>Ficus carica</i>).		
Kaira ... ..	...	112,777	Poona ... ..	...	80,051
Panch Maháls ... ..	...	100,052	Násik ... ..	...	3,320
Khándesh ... ..	...	55,602	Ahmadnagar ... ..	...	2,955
Násik ... ..	...	13,893	Shikárpur ... ..	...	1,104
Broach ... ..	...	2,270	Hyderabad ... ..	...	751
2.—Betelnut (<i>Areca catechu</i>).			Belgaum		
Kánara ... ..	...	9,080,951	...	...	235
Dhárwár ... ..	...	142,474	6.—Vine (<i>Vitis vinifera</i>).		
Ratnágiri ... ..	...	192,358	Násik ... ..	...	55,480
Kolába ... ..	...	23,320	Poona ... ..	...	63,136
Thána ... ..	...	5,247	Ahmadnagar ... ..	...	10,487
3.—Ráyan (<i>Mimusops Hexandra</i>).			Shikárpur ... ..	...	28,899
Kaira ... ..	...	77,354	Khándesh ... ..	...	3,503
Panch Maháls ... ..	...	4,198	Hyderabad ... ..	...	421
Broach ... ..	...	2,873	Upper Sind Frontier ... ..	...	450
4.—Kashewnut (<i>Anacardium occidentale</i>).			Karáchi ... ..	...	613
Kánara ... ..	...	105,487	7.—Kokum (<i>Garcinia Indica</i>).		
Ratnágiri ... ..	...	21,843	Ratnágiri ... ..	...	5,032
Thána ... ..	...	5,378			

Return No. IV.—Irrigation.

86. In the Presidency Proper the net area irrigated in the year under report was 4 per cent. against 5.4 per cent. in the previous year. In Sind, the proportion was reduced from 80 to 76 per cent., as the irrigated area did not keep pace with the general extension of the cropped area.

The variations under the principal heads are shown below:—

Irrigated Area.

No.	Detail.	PRESIDENCY PROPER.			SIND.		
		Area (000 omitted).		Increase (+) or decrease (-) per cent.	Area (000 omitted).		Increase (+) or decrease (-) per cent.
		1896-97.	1897-98.		1896-97.	1897-98.	
A.—Area Irrigated.							
1	Irrigated from Government canals	139	134	-3.6	2,285	2,557	+11.9
2	Do. private canals ...	12	14	+16.7	166	177	+6.6
3	Do. wells	646	574	-11.1	31	19	-44.1
4	Do. tanks	113	109	-3.5	...	...	...
5	Do. other sources ...	143	132	-7.7	96	165	+71.9
6	Total A, Area Irrigated ...	1,053	963	-8.5	2,581	2,918	+13.1
B.—Crops Irrigated.							
7	Rice	161	151	-6.2	735	899	+22.3
8	Wheat	187	206	+10.2	270	377	+39.6
9	Sugarcane	65	53	-18.5	3	3	...
10	Other crops	811	674	-16.9	1,732	1,881	+8.6
11	Total B, Crops Irrigated ...	1,224	1,084	-11.4	2,740	3,160	+15.3

Note.—The difference between totals A and B is due to the inclusion in the latter of the area cropped more than once under irrigation.

The total irrigated area decreased from 1,053,000 acres to 963,000 acres, *i.e.*, by 90,000 acres or 8·5 per cent.

District.	Acres (000 omitted).		
	Canals.	Tanks, wells, &c.	Net variations.
Ahmadabad	+1	+5	+6
Kaira ... ..	...	-13	-13
Panch Maháls ... ..	...	...	...
Broach ... ..	...	...	...
Surat ... ..	...	...	...
Khándesh	-4	+5	+1
Násik	-6	-10	-16
Ahmadnagar ... ..	...	-34	-34
Poona	+7	-5	+2
Sholápur	-4	-5	-9
Sátára	-1	-26	-27
Belgaum	+2	+1	+3
Bijápur	+1	-9	-8
Dhárwár	-1	+3	+2
Thána ... ..	...	...	...
Kolába ... ..	...	...	...
Ratnágiri ... ..	...	+1	+1
Kánara	+2	-2	...

The chief variations in the areas irrigated from different sources are shown in the marginal table. The general result indicated by the table is in most places a decrease in the area irrigated from canals and from sources other than canals. The decrease is partly due to the unusually large area irrigated during the previous year on account of the general failure of rain and partly to less water being available in tanks, wells and canals which had run short of their supply during the drought, and in some measure also to the favourable season making irrigation less necessary. Canal irrigation in Ahmadabad, Poona,

Belgaum and Kánara shows some increase. In the first two districts canals supplied ample water. In Belgaum the raising of the dam across the Ghatprabha river enlarged the storage capacity of the reservoirs and irrigated larger areas. In Kánara the irrigation by private canals increased at the cost of that from wells and tanks. Under tanks and wells the increase in Ahmadabad is attributed to larger areas under irrigated wheat and other pulses. In Khándesh new wells sunk during the famine year were brought into use in the year under report. In Dhárwár, good water was available in nálas and other sources.

The irrigated crops decreased from 1,224,000 to 1,084,000 acres, *i.e.*, by 140,000 acres or 11·4 per cent. The decrease occurred under all crops other than wheat, notably under "Other crops" (-137,000 acres). In Sind the total irrigated area increased 13·1 per cent. on account of favourable inundations.

Return No. V.—Agricultural Stock.

87. The following table shows the result of the enumeration of the principal heads of agricultural resources in the Presidency. Sind is not yet ready with a return :—

Agricultural Stock.

Details.	PRESIDENCY PROPER.			
	Number (100 omitted).		Increase (+) per cent.	Decrease (-) per cent.
	1896-97.	1897-98.		
Plough Cattle	2,929	2,965	1·2	.....
Breeding Bulls	17	16	.....	5·9
Cattle for other purposes	121	116	.....	4·1
Milch Cattle	2,498	2,414	.....	2·3
Young Stock	1,990	1,835	.....	7·8
Total, Cattle	7,555	7,376	.....	2·4
Horses and Ponies... ..	130	122	.....	6·1
Sheep	1,598	1,507	.....	5·7
Goats	1,545	1,675	8·4	.....
Ploughs	1,048	1,014	.....	0·4
Carts	513	514	0·2	.....

The district variations are noted below :—

No.	District.	Plough Oxen.	Cows.	She- buffaloes.	Young Stock.	Total Cattle.	Sheep.	Goats.
1	Ahmadabad	+4,418	+3,053	+1,277	+2,953	+12,404	—605	—1,089
2	Kaira	—2,494	—2,173	+1,770	+9,268	+6,436	—3,708	+4,595
3	Panch Maháls	+2,423	+990	+679	—1,072	+2,798	+133	—1,820
4	Broach	—769	—379	+193	—325	—1,671	+1,005	—791
5	Surat	—1,342	—646	—68	—2,125	—5,231	—1,470	+1,941
6	Khándesh	+5,413	—9,663	—3,145	—27,767	+35,999	—364	+8,917
7	Násik	—2,652	—5,861	—1,823	—12,686	—26,923	—10,460	—7,833
8	Ahmadnagar	—1,766	—23,411	—2,216	—36,940	—68,280	—51,263	+20,927
9	Poona	—6,065	—10,148	—721	—16,996	—33,812	—40,359	+5,186
10	Sholápur	+26,531	+747	+1,503	—15,638	+12,679	+27,184	+50,954
11	Sátára	—3,696	—6,062	+503	—15,819	—26,128	—21,185	+70
12	Belgaum	+3,871	+330	+1,451	—12,487	—7,656	—5,489	+4,991
13	Bijapur	+19,120	+1,173	—330	—23,291	—2,688	+17,477	+58,402
14	Dhárwár	+2,872	+742	+1,502	—310	+4,192	—1,930	—14,544
15	Thána	—374	+606	+310	—1,232	—1,636	+103	—1,366
16	Kolába	—90	—1,913	+76	+685	—1,179	+198	+2,111
17	Ratnágiri	+1771	—7	—53	—624	—500	+63	+794
18	Kánara	—1,063	—1,335	—495	—944	—4,843	+140	—386

Cattle.—In 1896-97 the total number of cattle diminished by 935,000 or 11 per cent. This year there was a further diminution of 179,000 or 2·4 per cent. The falling off took place under almost all heads of cattle, that under young stock being comparatively very large. In Gujarát the number of cattle increased on the whole. Only the two southern districts reported some decrease. In Broach the cessation of tagái advances is said to have prevented new purchases. Cattle-disease of a mild type is reported to have slightly reduced the number of cattle in Surat. Among the Deccan and the Karnátak districts, Sholápur and Dhárwár alone show increase. In the former, animals taken to the Nizám's territories for grazing during the famine are said to have returned in 1897-98. Dhárwár had an ample supply of fodder and water, which enabled it to register a slight recovery from the large decrease of the previous year. Elsewhere, in both provinces deaths on account of the scarcity of fodder prevailing at the beginning of the year, and sales of surplus cattle, which the impoverished cultivators were unable to maintain, account for large decreases. In the Konkan, Kánara exhibited a noticeable falling off, due to rinderpest and food and mouth diseases. The return home of animals which were brought to Thána during the period of scarcity account for the small decrease in that district.

Sheep and Goats.—Sheep decreased 91,000 or 5·7 per cent. The reduction is mostly in the Deccan and the Karnátak districts except Sholápur and Bijapur. This decrease is traced to the same causes which reduced the number of cattle. The goats on the other hand show an increase of 130,000 or 8·4 per cent. Unlike sheep, these animals increased in almost all districts of the Deccan and the Karnátak. Goats are hardier than sheep and live mainly on leaves of trees, which fodder was comparatively plentiful for them. In Ahmadnagar the increase is attributed to purchase of goats for milk, probably to replace milch cattle that died during the famine.

Horses and Ponies.—Decrease of 8,000 or 6·1 per cent. continued from the previous year, when there was a still larger falling off of 26,000. For 90 per cent. of the decrease in the year under report, Ahmadnagar (—2,800), Khándesh (—2,300), Násik (—1,200) and Poona (—900) are responsible.

Return No. VII.—Water-supply.

88. The return is a quinquennial one and will re-appear in 1901-02.

B.—PRICES.

89. **Price Inspectors.**—Out of the 59 stations fixed for inspection, 58 were visited once during the year, one alone—Kolhápur—being omitted owing to the strict quarantine restrictions imposed by the Darbár during the plague.

The cost incurred and the number of days actually devoted to inspection are given in the statement below, and are contrasted with the figures for the previous year :—

Year.	Salary.			Travelling.			Total.			Days of inspection.
	Rs.	a.	p.	Rs.	a.	p.	Rs.	a.	p.	No.
1896-97	3,200	0	0	1,378	13	3	4,613	13	3	189
1897-98	3,340	0	0	947	9	8	4,237	9	8	185

90. *Retail Prices Current.*—In the majority of the stations, the registration was carried out fairly efficiently, but in some of them serious inaccuracies were noticed during the inspections.

The standing order that the prices should be ascertained by a regular clerk on the establishment of the Reporting Officer, was disregarded in two stations, Sholapur and Mhow, where the work was entrusted to candidates. At Godhra, the work was divided between two karkuns, one of whom had frequently to leave the station on duty. This disregard of the standing orders led to numerous errors and omissions in the registration. The Inspectors noticed at some places that the clerks had made only haphazard inquiries, in consequence of which abnormally high rates were registered, prices were omitted for articles which were to be had in the market, whilst quotations were made in the registers for articles which were not even sold. At Málegaon the rates were not ascertained from retail trustworthy dealers but from a commission broker and a wholesale dealer.

In Bombay the prices of wheat flour of both sorts were for nearly seven months reported for a very superior quality. They were based on the rate of a superior quality of flour sold in fancy paper packets for higher classes of confectionery. The rates quoted by the Superintendent of Markets were thus about 30 per cent. higher than those published by the Chamber of Commerce. In Sholapur, Bijapur, Málegaon and Ahmadnagar, the price of the best sort of imported rice, called "table rice", was incorrectly registered as the price of the first sort, which caused the difference between the first and second sorts of rice to be unduly large. At Ahmadabad and Nasirabad the prices of tanned instead of raw hides were incorrectly recorded, and in one of the Deccan districts, Sátára, the price of groundnut in husk obtaining per ser of 76 tolas was registered for a measure ser of 46 tolas. An awkward error was detected at Alibág, where the price of wheat flour was quoted at 11 lbs. instead of 11 sers per rupee. The price of gram dál at Ratnágiri was erroneously quoted for gram, and the rates for tea and mutton, which were sold per lb. of 39 tolas, were wrongly recorded per local ser of 28 tolas. At Godhra the price of dry grass was reported for several months at half its actual price, and at another station the price of salt was wrongly calculated, the weight ser having been used for the measure ser, which made a difference of 27 tolas in the ser. At Sholapur the price of tobacco was registered at Rs. 40 per maund, and the rise was explained by the remark "want of supply". Subsequently at the inspection it was found that its price was wrongly ascertained. Similarly at Sukkur a mistake in calculating the price of jagri was explained away by the remark that "the rise was due to less import." At Bijapur the absence of the rate for rági in the fortnightly return was explained by the remark "not procurable in the market," whereas its price was registered on all the bi-weekly dates during the month: the omission was really due to negligence. The fortnightly returns were inaccurately compiled by four stations—Ratnágiri, Sátára, Surat and Godhra: instead of the prices ruling on the 15th and last day of the month being returned, these stations gave the averages of the previous and current fortnights.

91. *Táluka Form No. 38.*—These forms were inspected in all the head-quarter stations visited by the Price Inspectors. The irregularities found were numerous and indicated that the rules of the Revenue Manual were disregarded in several places. In some tálukas the registers were incomplete, in others the form was not compiled from the reports of Circle Inspectors, whilst in some places the prices recorded did not tally with those reported.

92. A return (pp. xlv-xlv) is appended giving, for all the districts of the Presidency and the several cantonments visited by the Inspectors, the

annual average retail prices of the principal staple food-grains and articles of ordinary consumption for the year under report.

93. *Return of Wholesale Prices.*—The rates in all the stations were critically examined and appeared generally to have been fairly well ascertained. Of the 10 selected stations, in 5 good work was shown, whilst in the remaining 5, errors more or less numerous were observed.

In Dhárwár, Bijápur and Sholápur, where wholesale transactions in food stuffs and seeds are settled by rupee prices, those registered were for quantities below 10 Indian maunds. In these three places, also, rates were not returned for all articles in which transactions had taken place. At Sukkur, the price of Jambha was wrongly registered for rapeseed. At Ahmednagar, where wholesale transactions were found at the inspection to have frequently taken place, no prices at all were returned for 10 months, and the absence of the rates in the return was explained away by the remark that "no transactions had taken place". Inspection of the dealers' books showed that transactions had taken place in every fortnight of the year, but the clerk entirely neglected to report them.

C.—CROP EXPERIMENTS.

94. The number of experiments conducted during 1897-98 amounted, as shown in the margin, to 127 as against 62 in the previous year. Of these 66 were from the Northern Division, 40 from the Central Division and 21 from the Southern Division. No experiments have been reported from Surat and Belgaum districts owing to the officers being placed on plague duty. In several other districts also the work suffered, more or less, from the same cause.

Jowári 21; bájri 16; wheat 31; rice 8; other millets 12; gram 12; lang 5; oil seeds 11; cotton 7; sugarcane 1 and other crops 3.

as shown in the margin, to 127 as against 62 in the previous year. Of these 66 were from the Northern Division, 40 from the Central Division and

D.—FORECASTS OF WHEAT, COTTON AND OIL SEEDS.

95. As a consequence of the bad season in some of the provinces outside the Presidency, wheat exports were partly diverted to the provinces affected with scarcity; and the exports to foreign countries dwindled to 32 per cent. of the previous year. Of the countries which figure conspicuously as wheat-importers from the port of Bombay, Italy alone increased her receipts. The exports to Egypt disappeared altogether and those to the United Kingdom were reduced to 2 per cent. only. France and Germany also took less than half of their last year's supply.

The cotton trade fared no better. The season was, no doubt, better than in 1896-97; but there was a large shrinkage in area owing to the extensive cultivation of food-grain and fodder crops consequent on the previous year's scarcity. On the one hand the plague and plague restrictions impeded the free flow of cotton to the port of shipment and on the other hand owing to recrudescence of plague and fall in the price of American cotton. The demand for Indian cottons, either for local mill industry or for shipment to European countries, was not very brisk. The total exports to foreign countries, therefore, fell by 30 per cent. below those of 1896-97.

The trade in sesamum and rapeseed showed considerable improvement in consequence of the favourable season and large demand from outside. The area under linsced, on the other hand, underwent a considerable shrinkage owing to want of rain at sowing time, and exports in this oil seed were curtailed to a large extent.

The official forecasts of cotton, wheat and oil seeds were published as usual. The forecast areas of the two former crops approximated to the actual area. But the divergence shown by the oil seeds was rather wide and is attributed to the usual difficulty of ascertaining the actual area under these seeds, which are mostly grown as raw crops.

E.—AGRICULTURAL LEDGERS.

96. A very full note on the cultivation of sugarcane in the Bombay Presidency by Mr. Mollison, Deputy Director of Agriculture, and Dr. Leather, Agri-

cultural Chemist to the Government of India, was prepared during the year and has been published as Agricultural Ledger No. 8 of 1898. It describes the cultivation of the crop, the effects of various manures, the sugar-boiling processes, the chemistry of the crop and descriptions of different varieties of cane growing in various parts of India. The pamphlet is an unusually complete one and contains all that has been learned up to date regarding the crop through comparative experiments and otherwise. Mr. Mollison is, at present, writing a pamphlet giving full descriptions of various breeds of cattle in the Presidency and of the conditions under which they breed and are bred. This will shortly be published with photographic illustrations of numerous typical specimens.

CHAPTER VIII.

FINAL.

97. The period to which this report relates expired about six weeks before I took charge of this office. The report has been well drafted by Messrs. Nagarji, Gokhle, Jáveri, Bhardi, Khambatta and Richardson of this office and by Ráo Bahádur Yashvant Nilkanth, Officiating Personal Assistant to the Director, who has supervised the whole.

I have the honour to be,

Sir,

Your most obedient Servant,

W. P. SYMONDS,

Acting Survey Commissioner and Director,
Land Records and Agriculture.

STATISTICS.

RAINFALL

(CHAPTER IV).

EXPLANATORY REMARKS.

Rain Periods and their Dates.

Early Rains	... ..	... ..	...1st January—10th April.
Ante-Monsoon—			
	{	A'shvini	...11th April—24th April.
11th April to 4th June		Bharani	...25th April—8th May.
		Krittika	...9th May—22nd May.
		Rohini	...23rd May—4th June.
Monsoon-Kharif—			
	{	Mrig	...5th June—19th June.
5th June to 14th August		A'rdra	...20th June—3rd July.
		Punarvasu	...4th July—17th July.
		Pushya	...18th July—31st July.
		A'shlesha	...1st August—14th August.
Monsoon-Rabi—			
	{	Magha	...15th August—27th August.
15th August to 21st Oct.		Purva	...28th August—10th September.
		Uttara	...11th September—24th September.
		Hast	...25th September—7th October.
		Chitra	...8th October—21st October.
Late Rains—			
	{	Svāti	...22nd October—3rd November.
22nd Oct. to 30th Nov....		Vishákha	...4th November—17th November.
		Anurádha	...18th November—30th November.
December.			

The average given in the tables is that for eleven years ending 1892, except for very few stations. The rainy days are compared with last year only.

The anna valuation given in the remarks is on the basis of 16 annas representing an average crop.

Synopsis of Rainfall Summary, 1897-98.

District.	KHARIF.		RABI.		General Remarks as to Rain.
	Rain.	Harvest.	Rain.	Harvest.	
West Khándesh .	Late for sowing, but sufficient and seasonable afterwards.	Good	Sufficient in the beginning, but ceased early.	Fairly good	Below average except in four talukas—three in the east and one in the west.
East Khándesh...	Do. do. ...	Do.	Do. do. ...	Good	Generally under average.
Násik	Scanty for sowing, but sufficient afterwards.	Do.	Do. do. ...	Fairly good	Under average.
Ahmednagar ...	Insufficient except in hilly parts.	Poor in four talukas; elsewhere middling.	Sufficient and timely.	Middling, having been injured by blight from excessive cold.	Short of average except in Nevása and Sangamner.
Poona	In the west sufficient. In the east very deficient till the end of August. Good afterwards.	Fair in the west. Poor in the east.	Do. do. ...	Do. do. ...	Below average.
Sholápur... ..	Deficient	Middling at Mádhá and Pandharpur. Poor elsewhere.	Sufficient for sowing; scant for development.	Poor owing to early cessation of rain and to excessive cold.	Above average in the western talukas.
Satára	Sufficient and useful, but late in the central and eastern talukas.	Fair	Do. do. ...	Fair	Generally above average.
Belgaum	Sufficient throughout in the west. Deficient in the commencement in the east.	Good	Good for sowing, but scant afterwards.	Middling. Cotton poor.	Little above average in the west; below elsewhere.
Bijápur	Deficient and scant till end of August.	Poor	Do. do. ...	Do. do. ...	Below average except in three talukas.
Dhárwár... ..	Sufficient throughout in the west. Deficient in the commencement in the east.	Fairly good	Sufficient, but stopped rather early.	Middling. Cotton and wheat injured by easterly wind.	Little below average in the south; above elsewhere.
Kánara	Good and sufficient...	Good	Good and sufficient...	Good	Above average in coast talukas; little below it elsewhere.
Ratnágiri ...	Do. do. ...	Do.	Do. do. ...	Do. do. ...	Generally above average.
Kolába	Do. do. ...	Do.	Do. do. ...	Good in four talukas. Middling elsewhere.	Do. do.
Thána	Deficient for sowing. Sufficient afterwards.	Fairly good	Do. do. ...	Fair	Above average except in the north.
Surat	Scant for sowing. Sufficient afterwards. August rain injuriously heavy.	Good	Sowing rains sufficient, but deficient in the end.	Middling	Below average.
Brouch	Sowing rain late, but sufficient and timely later on.	Fair to good... ..	Do. do. ...	Fair to good... ..	Above average in the central talukas; below in the remaining ones.
Kaira	Do. do. ...	Fair, but rice poor ...	Do. do. ...	Middling to fair ...	Generally below average.
Panch Maháls ...	Do. do. ...	Rice poor; other crops fair.	Do. do. ...	Middling	Below average.
Ahmedabad ...	Do. do. ...	Good, but rice middling.	Do. do. ...	Good	Slightly above average in three talukas; elsewhere under it.

West Khandesh, 1897.

Rain Periods.	Dhulia.		Pimpalner.		Nandurbár.		Náwapur.		Taloda.		Sháháda.		Shirpur.		Sindkheda.		Amalner.		Párola.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.	
Early Rains ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.07	...	...	...	...	...
Ante-Monsoon ...	...	...	0.73	1	...	...	...	...	...	...	...	...	0.22	1	0.43	1	...	...	...	...
Monsoon-Kharif ...	10.33	17	8.04	14	10.92	25	25.16	34	19.97	25	12.89	24	16.02	20	15.20	20	8.67	23	17.12	27
Monsoon-Rabi ...	20.51	17	12.45	16	10.74	25	18.92	33	10.72	19	10.30	20	17.18	21	14.31	21	14.52	17	16.39	16
Late Rains ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	30.64	34	21.42	31	21.66	50	44.08	66	20.69	44	29.25	44	33.42	42	29.99	42	23.26	40	33.51	46
Average ...	27.61	31	24.37	33	32.31	51	35.03	71	32.90	52	30.09	42	23.77	36	21.52	30	23.35	32	32.51	39

General characteristics.—A hilly and rugged tract, except where the wide black-soil plains extend on either side of the Tápti and its tributaries. Rainfall very heavy in the Dángs.

Remarks.—The rainfall was above the average at Navápur Petha and in three eastern talukas; elsewhere below the average. The monsoon commenced timely in June but stopped too soon to allow sowings. They were however resumed in July when there was good and sufficient rain in the last three weeks. Kharif crops continued to flourish in August and September. October rain was light but it was sufficient for standing kharif crops and rabi sowing. Kharif harvest was nearly over in November. No rain fell in this month or December. The rabi crops suffered slightly from want of moisture owing to the early cessation of rain and yielded an outturn below 12 annas which is taken as the average. The kharif crops were better. Their outturn was above 12 annas.

East Khandesh, 1897.

Rain Periods.	Cháligoon.		Páchora.		Bhadgaon.		Erundol.		Chopda.		Jalgaon.		Jámner.		Bhusával.		Edálabád.		Yával.		Ráver.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.	
Early Rains ...	0.03	...	0.01	...	...	...	...	...	0.01	...	0.03	...	0.12	1	...	...	0.10	1	...	...	0.02	...
Ante-Monsoon ...	...	...	...	...	...	...	0.19	1	...	...	...	...	0.08	...	...	...	...	...	...	...	...	...
Monsoon-Kharif ...	9.37	17	15.64	23	14.29	26	18.33	24	6.79	23	17.09	20	14.19	25	12.60	26	8.19	19	15.93	34	9.13	13
Monsoon-Rabi ...	15.61	20	15.46	20	20.45	23	18.67	24	13.95	22	18.07	18	12.29	16	15.04	19	13.19	19	12.49	15	12.69	18
Late Rains ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	25.01	37	31.13	43	34.74	49	37.18	49	20.75	45	35.19	44	28.68	42	27.64	45	21.49	39	23.47	39	21.84	36
Average ...	36.91	36	34.33	33	30.69	38	35.17	29	32.42	37	36.20	37	37.23	41	30.32	39	30.14	33	29.90	33	32.21	35

General characteristics.—In the north, high hills of the Sátpudas. The southern and western portions are also hilly, but the hills less high and continuous. Drainage by the Tápti, the Girna and the Purna. Rainfall larger than in the West Khándesh, but less certain.

Remarks.—The number of wet days was greater than usual, but the total fall was under the average, except in one or two talukas where it slightly exceeded the average fall. The monsoon opened timely in June, but the rainfall was generally insufficient until the end of the first week of July after which abundant rain fell. This enabled retarded sowings to be completed. In August and September kharif crops continued to thrive without check. The "Hasta" showers in September-October were sufficiently heavy. They were followed by light "Chitra" showers. Practically no rain fell after October. The rabi crops, therefore, though not much below normal were not as good as the kharif. The yield of important crops was estimated as under:—Jowár and bújri 14 annas. Til 13 annas. Wheat and grain 11 annas. Linseed 11 annas. Cotton 13 annas. Tur 12 annas.

Na'sik, 1897.

Rain Periods.	NA'SIK.		IGAT-PURI.		SINNAR.		NIPHA'D.		YEOLA.		NA'ND-GAON.		MA'LE-GAON.		SATA'NA.		KALVAN.		CHA'N-DOR.		DINDORI.		PEINT.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.	
Early Rains ...	0'04	1	...	...	0'02	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ante-Monsoon ...	0'49	1	0'10	1	1'14	2	...	...	...	...	...	0'87	1	0'12	...	0'03	...	0'23	1	0'45	1	...	...	...
Monsoon-Kharif...	12'13	20	81'59	55	10'23	23	8'50	17	6'00	16	7'71	15	7'30	13	5'79	10	14'01	23	0'68	24	12'94	29	47'67	43
Monsoon-Rabi ...	15'19	22	42'68	44	12'79	18	16'87	17	17'62	16	13'29	20	14'16	17	13'81	16	13'02	17	17'37	23	10'00	24	28'26	37
Late Rains ...	0'01	...	...	...	0'46	1	...	...	0'10	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	28'46	44	124'30	100	24'63	43	25'37	34	24'53	33	21'01	35	21'83	31	10'72	20	27'06	40	27'80	43	33'20	63	73'03	80
Average ...	37'74	65	141'11	101	29'05	49	25'97	63	24'76	34	34'11	35	25'24	25	25'10	37	29'67	50	31'41	39	33'05	60	93'71	87

General characteristics.—The district is divisible into the Desh (or open country) and the Dāngs (near the Sahyādris with heavy rainfall and primitive cultivation). The west portion of Násik, Dindori and Igatpuri and the whole of Peint belong to the Dāngs.

Remarks.—The total rainfall was under the average except at Dindori where it was a few cents in excess. The early ante-monsoon showers were light and useful for preparation of land. The monsoon commenced timely in June but the total fall of the month was too scanty for general sowings. They were completed in July which gave good and sufficient rain. The fall in August and September was very good for all the crops. The "Hasta" showers were as heavy as usual and gave good rabi prospects. The light showers of "Chitra" closed the monsoon in the middle of October. The Tusar as well as kharif crops did well throughout. The former yielded 10 to 12 annas. Kharif 12 to 14 annas; in places they yielded as much as 16 annas. Among the rabi crops gram and wheat secured 10 to 12 annas. Linseed 8 to 12 annas.

Ahmadnagar, 1897.

Rain Periods.	1 NAGAR.		2 PA'RNER.		3 SHRI-GONDA.		4 KARJAT.		5 JAM-KHED.		6 SHEV-GAON.		7 NEVA'SA.		8 RA'HURI.		9 KOPAR-GAON.		10 SANGAM-NER.		11 AKOLA.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.	
Early Rains ...	0'30	1	0'30	1	0'02	...	0'09	...	0'17	1	0'14	1	...	...	0'20	1	0'09	...	...	...	...	...
Ante-Monsoon ...	0'36	1	0'32	1	0'03	...	0'14	...	0'48	2	0'79	2	0'14	1	0'05	...	...	...	0'62	1	0'87	1
Monsoon-Kharif...	8'43	10	8'83	10	3'24	8	3'52	10	0'79	16	10'32	15	0'66	16	6'69	12	6'21	14	6'05	11	8'07	23
Monsoon-Rabi ...	14'14	18	16'54	20	15'76	18	16'86	18	14'66	21	15'62	16	19'19	19	11'56	21	11'24	16	17'90	15	14'12	16
Late Rains ...	...	...	0'05	...	0'49	1	...	...	0'20	1	0'86	1	0'05	...	...	...	0'08	...	3'31	1	...	...
Total ...	18'23	30	21'04	32	19'54	27	20'61	28	25'30	41	27'73	25	29'24	36	18'40	24	17'62	30	25'78	29	22'16	29
Average ...	26'37	34	26'71	40	22'35	23	24'85	29	31'75	31	28'60	32	26'21	31	26'02	25	20'11	31	23'26	23	24'06	31

General characteristics—(1) Desh—Godavri valley (tálukas 6 to 9) rich alluvial plains growing much wheat. Rainfall very uncertain. Bhima and Ghor valley (tálukas 3 and 4) alluvial, but less fertile. Rainfall more capricious. Good year exceptional. Tálukas 1, 2, 5 and 10 lie between these valleys. Alternation of bare hill and treeless plain with occasional fertile well-wooded tracts. Rain more regular. (2) Dāngs—Half Akola has very heavy rain, half abuts on the Desh. The record shows the fall of the plain portion.

Remarks.—The annual rainfall was short of the average except in Nevasa and Sangamner where it was 2 or 3 inches in excess. The ante-monsoon showers were scanty and partial. The monsoon opened in June with a few light showers only. The usual season for sowing cotton and báji passed away. In a few hilly places where some sowings were effected the seedlings suffered in the latter part of the month. The general sowings were resumed in July but the fall of the month was still deficient in the southern tálukas. The August rain was again deficient. In places the kharif crops failed, but a light but general fall at the close of the month saved the báji crop. The "Uttara" and "Hasta" falls in September were more than sufficient, and rabi sowings were somewhat retarded through excessive moisture. There was another good fall in October. No rain fell in November or December. The rabi crops suffered from blight caused by excessive cold in December and January. On this account the rabi crops yielded from 6 to 9 annas only. The kharif crops failed in Karjat, yielded very poorly from 4 to 6 annas in Ráhuri, Nagar, Parner and Shrigonda. Elsewhere from 10 to 14 annas. Tusar crops failed in 3, yielded scanty harvests in five tálukas and 12 annas only in Shevgaon.

POONA, 1897.

Rain Periods.	POONA.		PAED.		VADGAON.		LONÁ-VLA.		KHED.		GHODA.		JUNNAR.		SIRUR.		SÁSVAD.		BARÁ-MATI.		DHOND.		INDÁ-PUR.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
Early Rains	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.	
Ante-Monsoon...	0·65	2	0·10	1	0·66	2	...	...	0·41	1	1·00	3	...	...	0·41	1	1·15	1	0·17	1	0·09	...	0·62	2
Monsoon-Kharif.	14·09	28	45·25	80	26·09	40	134·29	61	12·87	23	17·62	31	15·79	29	2·30	9	7·67	24	3·10	10	7·17	14	8·37	10
Monsoon-Rabi...	20·66	19	11·26	26	7·95	19	38·21	39	13·95	22	9·14	19	15·54	19	13·05	20	9·46	14	11·89	17	12·94	16	12·68	19
Late Rains	1·18	1	...	...	0·15	1	...	...	0·09	...	0·04	...	0·11	1	...	...	...	...	1·08	1	0·23	1	1·43	1
Total	37·18	60	56·61	77	34·85	62	172·50	100	27·32	49	27·95	63	31·50	49	20·76	30	18·28	39	16·32	29	20·51	31	18·25	33
Average	38·60	62	67·22	82	57·74	68	171·50	100	25·03	56	32·87	60	34·49	61	24·47	30	26·08	63	24·57	40	...	37	26·38	27

General characteristics.—The district varies from a heavy certain rainfall to a most scant capricious one. Sure rain is enjoyed by the west portions of Junnar, Khed, Haveli and all of Mával. A moderate but regular rainfall characterizes the central belt, while the Bhimhadi and Indápur talukas are uncertain and irregular like the adjoining talukas of Sholápur.

Remarks.—The number of rainy days was generally less than the average and the total rainfall of the year was below the average except at the head quarter station and at Khed where it was a little above. The ante-monsoon showers were only sufficient for preparation of land. The monsoon opened with the second week of June. In the west the sowings were started in time; but they were retarded at the close of the month for want of rain. Moderate rain fell daily in July, which was useful for completing sowings as well as transplantation. During the next three months the crop flourished without any check excepting some damage to the bajri crop by the "Hasta" fall in September. No rain fell in November when reaping of kharif crop was completed. In the east the rain had been insufficient from the commencement of the kharif sowing. The fall in July was light and interrupted by long breaks and nearly the same conditions continued in August. Kharif crops were withering away at the end of that month. But the September fall was above the average and improved prospects. It saved part of the kharif crops and allowed preparation of rabi lands. Rabi sowings were effected in October under favourable circumstances, but no rain fell afterwards and moisture was deficient. The crops also suffered from blight caused by excessive cold in December and January and from cyclonic rain in February when they were lying cut in the fields. The rabi yield was thus only 6 to 8 annas at the best. The kharif yielded 10 to 12 annas in the western portion and 6 annas in the eastern.

Shola'pur, 1897.

Rain Periods.	SHOLÁPUR.		BÁRSI.		MÁDHA.		KARMÁLA.		PANDHARPUR.		SÁNGOLA.		MÁLSIRAS.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
Early Rain	In.		In.		In.		In.		In.		In.		In.	
Ante-Monsoon...	...	...	0·71	3	0·24	...	0·38	2	0·43	2	0·88	4	0·44	2
Monsoon-Kharif	...	...	5·87	10	6·57	16	9·62	12	3·81	9	6·89	11	4·21	11
Monsoon-Rabi...	...	...	14·04	23	18·01	24	28·98	29	16·24	23	20·21	22	20·76	19
Late Rains	...	...	6·30	1	0·14	1	0·26	1	0·04	...	0·58	4	0·05	...
Total	20·42	87	25·00	41	39·28	44	20·67	34	20·66	42	25·62	33	28·37	33
Average	32·78	80	36·37	33	31·61	29	27·66	32	29·01	32	23·17	26	23·36	24

General characteristics.—The isolated taluka of Bársi is richest, and has the surest rain; but the rainfall is scanty all over the district, and very capricious.

Remarks.—Rain below average at Sholápur, Bársi and Karmála; elsewhere above average owing to heavy fall at commencement of the rabi season. The ante-monsoon showers were very light and partial. The rainfall in the usual kharif sowing season was neither sufficient nor well distributed and the sowings were effected late in the latter half of July. That month also closed with urgent need of rain. The fall in August was again much below the normal, and intermittent. The kharif crops began to wither. Those that were sown late fared better with the heavy "Purva" fall in September, which was followed by another good fall under "Uttara" and "Hasta." The rain for rabi sowing was general and abundant. The whole of the rabi area was sown, but the rabi rains closed before the end of October, and the crops suffered from the rain ceasing so soon after their germination and also from excessive cold later on. The kharif outturn was estimated at 12 annas in Mádha, 8 annas in Pandharpur. Elsewhere 3 to 4 annas. The rabi outturn was estimated at 6 to 10 annas in Bársi, 6 in Málsiras and 2 to 4 annas in the remaining talukas.

Sa'ta'ra, 1897.

Rain Periods.	SÁTARA.		KOR- GAON.		WÁI.		KHAN- DÁLA.		MEDHA.		DIAL- COLM PETH.		PÁTAN.		KARÁD.		VALVA (ISLÁM- PUR).		SHIBÁLA		DAMI- VÁDI.		VADUJ.		VITA.		TÁ- GAON.		
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	
	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.
Early Rains ...	0.69	1	0.07	...	...	...	1.11	1	0.36	1	...	...	0.22	1	...	...	0.14	1	...	...	0.07	...	0.48	1	0.40	1	0.04	2
Ante-Monsoon ...	2.45	3	1.85	6	0.41	2	1.12	3	3.11	4	...	...	5.41	4	1.61	5	3.07	5	...	...	2.31	5	1.11	3	1.73	3	3.39	4
Monsoon-Kharif ...	28.16	44	16.16	30	19.23	27	11.05	22	63.69	51	2.65	8	57.22	60	17.68	29	17.41	33	32.14	46	9.03	13	0.02	17	7.18	21	7.08	20	
Monsoon-Rabi ...	12.34	22	14.01	22	16.43	22	17.47	25	15.65	29	67.43	63	14.39	30	11.73	23	13.79	22	12.16	19	14.03	21	14.86	17	10.68	16	12.89	19	
Late Rains ...	1.98	2	0.80	2	0.48	1	...	...	0.40	1	0.61	2	0.24	1	0.88	1	0.72	2	0.23	1	1.10	2	0.19	1	0.13	1	0.78	2
Total ...	46.61	72	32.69	66	36.55	62	30.75	61	83.21	86	287.24	128	77.48	86	31.89	57	35.03	64	48.57	75	25.60	41	21.80	30	26.21	40	24.98	47	
Average ...	45.30	72	30.02	66	34.69	65	29.40	50	76.21	76	292.60	111	78.81	80	36.43	63	30.01	64	42.80	66	22.98	47	24.66	40	26.13	46	29.63	58	

General characteristics.—Western Belt—Parts of Jávi, Pátan, Wái, Sátara, and Válva, hilly. Regular and heavy rainfall. Central Belt—East portions of above and all Korogaon and Karád. Rich, well watered valleys. Eastern Belt—The rest chiefly a waving plain and of poor land. Uncertain rainfall. But south portion of Tásgaon rich, well-wooded plains.

Remarks.—Aggregate rain below average in Karád, Vaduj and Tásgaon. Elsewhere above average. Preparation of land and in places sowings were effected with the good ante-monsoon rain which fell all over the district. The rainfall in the beginning of the monsoon was good in the western tálukas where all crops thrive under favourable circumstances till they were harvested. In the eastern and central tálukas the kharif rain in June was insufficient and did not allow general sowings. July and August falls were also below requirements. In the latter month the crops began to suffer, but September brought good rain to all parts. Though the fall was late, it was useful to kharif crops sown late, and for rabi sowings. October rain was good and well distributed with breaks for completing rabi sowings. The rabi crops would have been much better if some rain had fallen in November or December. As it was, they suffered partly from insufficient moisture and partly from excessive cold in December. The yield was estimated at 10 annas. The kharif crops were estimated to yield 9 annas generally.

Belgaum, 1897.

Rain Periods.	BEL- GAUM.		CHAND- GAD.		KHÁNÁ- PUR.		SAMP- GAON.		SAUN- DATTI.		MURGOD.		GOKÁK.		CHIKODI		HICKERI.		ATHNI.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.	
Early Rains ...	0.16	1	0.99	1	0.22	1	0.21	1	0.67	1	0.52	1	0.11	1	0.23	1	...	...	0.97	1
Ante-monsoon ...	8.69	10	2.65	6	8.29	7	8.97	11	5.25	9	6.16	10	10.09	11	6.68	11	5.10	12	8.78	9
Monsoon-Kharif ...	23.55	45	83.63	56	57.61	52	14.75	33	9.03	18	8.49	23	8.12	13	14.08	24	10.60	21	6.09	17
Monsoon-Rabi ...	9.50	30	12.69	24	7.46	21	16.20	17	8.87	15	7.75	16	10.23	12	9.82	15	5.91	17	10.61	13
Late Rains ...	0.48	2	1.68	2	...	...	1.74	2	0.64	1	1.18	1	2.75	2	1.03	2	0.33	2	1.43	2
Total ...	45.28	79	101.44	93	68.68	61	36.30	64	24.26	44	24.09	50	31.35	39	32.25	57	25.01	52	23.61	41
Average ...	51.49	83	107.26	96	67.27	60	26.16	63	24.78	39	26.64	...	26.72	42	29.28	65	26.79	45	24.07	36

General characteristics.—Near the Sahyádris the rain of the south-west monsoon is very constant and heavy (Belgaum and Khánápur). Further east, Chikodi, Gokák and Sámppaon, it is fitful. The eastern tálukas show a fitful fall, but this is supplemented by a scanty supply from the north-east monsoon (which comes generally in October and later).

Remarks.—In Khánápur, Sámppaon, Gokák, and Chikodi the total fall was slightly in excess of average. Elsewhere as much under average. The ante-monsoon showers in April and May were heavy and useful for sowing of paddy and for replenishing the water supply. At the beginning of June the regular monsoon set in and gave useful rain for sowing; but a break in the latter part of the month caused anxiety. The July rain was heavy in western tálukas where kharif sowings were briskly carried on; but in the eastern parts it was light and sowing was somewhat checked. In August again the western tálukas had good useful rain while in the eastern the kharif crops were withering. Relief came in September when good rain fell everywhere. It was heavier in the eastern parts which most needed it. This and the subsequent good fall in October allowed the rabi sowings to be almost completed. No rain fell from November to January and the rabi crops suffered from want of moisture. The season on the whole was irregular but more favourable to kharif than to rabi crops. The estimated yield for the former was 6 to 8 annas in Athni, 16 to 18 annas in Chikodri. Elsewhere 10, to 12 annas. Among the rabi crops wheat was estimated at annas 6 to 8, gram 8 to 10, cotton 4 to 6 annas and rabi jowári 6 to 10. In Sámppaon some rabi crops were estimated at the full average of 12 annas.

Bija'pur, 1897.

Rain periods.	SÁTARA.		INDI.		SINDGI.		BÁGE-VÁDI.		MUDDH-BIHÁL.		BÁGAL-KOT.		BILGI.		BÁDÁMI.		HUNGUND.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
	In.		In.		In.		In.		In.		In.		In.		In.		In.	
Early Rains	0.05	..	0.03	..	0.20	1	0.05	..	0.07	2	0.10	..	0.07	..	0.67	1	0.72	2
Ante-Monsoon	3.73	7	2.42	5	2.63	3	2.50	5	1.31	4	4.40	10	3.36	9	3.30	7	1.74	3
Monsoon-Kharif	10.64	11	4.78	9	3.46	7	5.27	11	5.55	9	6.56	9	4.95	6	4.40	6	4.13	6
Monsoon-Rabi	14.02	25	15.36	25	16.00	22	17.32	23	18.09	27	9.82	19	9.69	18	13.40	14	13.40	25
Late Rains	0.18	..	..	..	1.64	2	1.09	2	0.07	..	0.94	2	0.82	2	..	..	0.42	1
Total	39.47	43	22.57	89	24.83	85	26.83	41	25.99	42	21.91	41	18.79	85	21.86	23	25.41	87
Average	26.68	29	23.10	30	31.23	23	30.73	23	27.62	31	26.03	26	23.71	30	25.56	31	23.29	23

General characteristics.—This district receives its rain from both the south-west and the north-east monsoon. Hungund enjoys an even and generally sure rainfall. Bágalkot and Bádámi fare well as a rule. The rich plains of the Krishna and Don valleys are uncertain. The north talukas of Bijápur, Indi and Sindgi have capricious and light rainfall.

Remarks.—The total fall of the year was one or two inches in excess of the average in two talukas, elsewhere up to or rather less than the average. The ante-monsoon showers fell in all talukas, but were not heavy enough for general sowings. The rainfall in June began timely but stopped in the latter part of the month. Sowings were therefore retarded in places. In July the aggregate fall did not amount to an inch in the majority of the talukas and the rain was very light and scattered. Prospects did not improve in August, as the rain was again scanty and the bulk of the kharif crops would have failed altogether but for the "Purva" fall at the close of the month, which was succeeded by an almost continuous fall throughout September. Such rabi sowings as could not be completed in the heavy fall of September were effected in October, when the rain fell with useful breaks. November, December and January were altogether dry. The rabi crops especially jowári did not get sufficient moisture and suffered in outturn. Gram yielded 8 annas, wheat 6 annas, jowár 5 annas, and cotton only 4 annas. The kharif crops were nowhere estimated over 6 annas.

Dhárwár, 1897.

Rain Periods.	DHÁR-WÁR.		HUBLI.		KAL-GHATGI.		BANKÁPUR.		HÁNGAL.		KOD.		RÁNE-BENNUR.		KARAJGI.		GADAG.		MUN-DARGI.		NAVAL-GUND.		NAR-GUND.		RON.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.	
Early Rains	0.05	..	..	..	..	..	0.60	1	0.01	..	0.18	1	0.12	1	0.53	1	0.44	1	1.30	1	1.47	1	0.84	1	0.84	1
Ante-Monsoon	7.65	11	6.55	11	8.47	11	5.47	8	5.57	9	1.78	4	3.34	9	4.47	8	7.83	9	5.52	10	5.19	12	7.13	9	4.93	9
Monsoon-Kharif	17.01	36	10.64	33	13.44	42	17.44	37	25.01	46	14.67	38	9.29	19	15.72	37	7.68	12	6.12	10	9.53	16	4.81	10	11.97	9
Monsoon-Rabi	14.09	16	10.84	20	9.25	21	6.08	16	7.71	22	7.77	19	9.68	19	11.54	23	12.42	23	13.63	17	8.88	14	15.46	16	15.30	19
Late Rains	1.54	1	1.12	1	2.71	1	1.72	1	0.62	1	0.40	1	1.63	1	1.10	1	0.23	1	..	..	0.90	2	2.30	1	0.04	..
Total	41.24	64	29.19	64	39.87	75	30.71	62	39.51	79	34.53	63	23.91	49	32.95	70	28.54	46	25.76	38	25.77	45	31.96	37	33.13	33
Average	33.19	70	28.09	67	30.41	74	25.42	67	41.41	77	29.11	71	24.63	59	25.15	61	25.71	33	20.11	21	23.51	42	26.10	41	28.10	27

General characteristics.—The district is composed of hilly tracts—the Mallád growing rice and hill grains (Hángal, Kalghatgi and Kod) and the black-soil plains growing cotton and wheat (Gadag, Ron, Navalgund and Hubli), or cotton but no wheat (Karajgi and Ránebennur). The Dhárwár and Bankápur talukas are partly Mallád. The soil of the Mallád is red and gravelly, but the rainfall is steady and comparatively heavy. It is more sure and seasonable the further to the west. The proverb says: 'Good rain won't give a big crop, nor will bad rain bring famine.' This is in comparison to the fertile black-soil plains, where with good seasonable rains the produce is very large, but where the fall is irregular and uncertain and where there is always risk of drought.

Remarks.—The aggregate rain was somewhat below the average in the southern talukas. Elsewhere it exceeded the usual fall. The ante-monsoon showers were very heavy all over the district and sowings were commenced early before the regular setting in of the monsoon. In June they were everywhere completed. In July and August the kharif crops in the western talukas had seasonable and sufficient rain. In the eastern portion the rain was light and scattered and by the end of the latter month crops had begun to wither, but a heavy fall occurred in September which improved all crops and enabled sowings of rabi jowári and wheat to be begun. October rain was seasonable though rather scanty in the latter half. No rain fell afterwards. Some injury was done to wheat and cotton by the high easterly winds in January. The rain was sufficient and well distributed, except that it ceased too early, owing to which the late crops did not do so well as the kharif. Taking 12 annas as the average, early jowári and rice yielded 10 annas, late jowári 7 annas, wheat 8 annas, cotton 7 annas.

Kánara, 1897.

Rain Periods.	KA'BWA'B.		ANKOLA.		KUMTA.		HONAVAR.		DHATEAL.		HALIVAL.		SUPA.		YALLAPUR.		MUNDGOB.		SIBBI.		SIDDAPUR.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
Early Rains	In. 0'04	...	In. ...	...	In. ...	...	In. ...	...	In. ...	...	In. 0'19	1	In. ...	...	In. 0'03	...	In. 0'68	1	In. 0'10	1	In. 0'05	...
Ante-Monsoon	1'86	5	3'71	8	1'99	4	1'09	3	3'83	8	8'18	11	2'27	8	6'05	9	7'68	12	3'64	6	0'74	2
Monsoon-Kharif	08'39	61	112'37	61	108'94	62	110'08	65	140'09	65	27'82	40	77'40	57	93'89	57	32'80	43	77'34	63	88'09	65
Monsoon-Rabi	20'45	37	20'41	37	35'27	39	45'02	42	51'14	44	13'66	32	13'66	32	16'47	34	10'74	27	14'73	33	16'50	34
Late Rains	0'01	...	0'07	...	0'20	1	0'07	...	...	...	0'70	1	0'30	1	0'62	2	0'30	1	0'30	1	1'02	2
Total	129'75	103	141'56	103	146'40	106	165'85	110	105'08	114	50'25	81	93'62	93	116'06	102	52'40	84	96'20	104	106'30	103
Average	129'20	99	134'76	96	151'88	102	148'02	102	155'01	104	49'27	80	90'52	93	102'60	88	43'92	78	102'45	94	113'21	93

General characteristics.—A hilly and thickly wooded district, divided into two parts by a broken and irregular range of hills. The low land or coast tract has the heavier rainfall; in the upland the fall rapidly decreases with the distance from the Sahyádrí crest.

Remarks.—The total fall was slightly below average in three talukas. Elsewhere above the average. The monsoon commenced on the 4th of June and gave seasonable and sufficient rain for sowing and transplanting. In July and August the crops prospered everywhere. Some injury to the crops on the coast was done by the heavy fall at the end of September. The "Hasta" rain in October was good; the "Chitra" rain light and partial. The second crops were sown in the favourable breaks of October. Both kharif and rabi crops yielded the full average of 12 annas.

Ratna'giri, 1897.

Rain Periods.	RATNA'GIRI.		VENUGOLA.		MA'LVAN.		DEVGAD.		RA'JA'PUR.		SANGA-MESHVAR.		CHIPLEW.		GUNA'GAR.		KURD.		DA'POLI.		MANDAROD.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
Early Rains	In. ...	...	In. ...	...	In. ...	...	In. ...	...	In. ...	...	In. ...	...	In. ...	...	In. ...	...	In. ...	...	In. ...	...	In. ...	...
Ante-Monsoon	00'8	...	1'85	2	0'45	1	...	...	0'24	1	0'67	1	1'41	2	1'19	1	0'77	1	0'14	1	...	...
Monsoon-Kharif	06'93	54	102'45	57	07'69	51	60'59	50	104'59	62	118'43	62	115'77	63	99'07	61	137'59	63	115'65	63	130'38	63
Monsoon-Rabi	39'17	39	27'24	36	37'23	40	25'63	27	30'29	43	39'59	43	40'81	44	36'61	39	44'35	44	40'00	42	39'99	42
Late Rains	...	...	...	...	0'12	1	...	...	0'03	...	0'16	1	0'41	1	0'08	...	0'40	1	0'81	1	...	...
Total	130'16	90	131'64	95	105'09	93	86'27	77	141'14	106	158'85	112	163'40	110	137'45	101	183'11	109	166'69	107	175'37	105
Average	106'90	88	118'13	80	100'57	76	95'23	61	140'55	93	162'82	98	155'74	96	107'73	86	147'43	91	146'59	97	165'87	90

General characteristics.—The district is formed by a narrow belt of low land; though hilly and rugged as a whole, the valleys are more open near the Sahyádris than towards the centre, and these again fall into nearly level plateaus towards the centre. The rainfall is abundant and regular, being considerably heavier inland than on the coast.

Remarks.—Rainfall below average in Devgad, Rájapur and Sangameshvar. Elsewhere above average. The monsoon opened between the first and the second week of June. But want of sufficient rain at the end of the month interfered with late sowings and transplantation of early sown rice. These operations were, however, satisfactorily completed in July. In August and September, the rainfall was sufficient and crops thrived except that in the latter month excess of rain caused slight injury to crops ripe for harvest. In October rain fell with a good break in the first fortnight and ceased in the second. Since then no rain fell. The season on the whole was good and crops did well. Both kharif and rabi crops yielded a normal crop of 11 or 12 annas.

Kola'ba, 1897.

Rain Periods.	ALIDA'G.		PANVEL.		URAN.		KARJAT.		MA'THERA'M.		KHA'LA'PUR.		PRM.		ROHA.		MA'NGAON.		MAHA'D.		
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	
Early Rains ...	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		
Ante-Monsoon	0'02	0'49	2
Monsoon-Kharif ...	72'07	59	90'17	55	80'11	59	112'09	50	174'33	66	91'95	63	102'53	63	109'41	64	103'44	63	101'44	62	
Monsoon-Rabi ...	28'95	35	39'23	42	28'47	35	35'42	42	50'07	47	30'77	41	36'09	42	37'27	42	37'75	43	42'04	42	
Late Rains	0'04	0'59	1
Total ...	101'02	94	129'45	97	108'58	94	147'57	98	223'30	113	123'72	104	141'51	105	146'08	106	141'19	106	144'58	107	
Average ...	91'77	77	121'59	89	99'85	87	130'81	93	224'03	101	132'12	87	121'92	91	127'67	87	136'16	85	138'95	90	

General characteristics.—A rugged belt of country from 15 to 30 miles broad. Rainfall abundant and regular, being heaviest in parts towards the Sahyádris.

Remarks.—The total fall was generally above the average. In June, the monsoon commenced timely and sowings were completed. But some deficiency was felt at the end of the month for transplantations. These were completed in July when the rain was sufficient and seasonable. Favourable conditions lasted throughout August, September and October. Kharif crops were harvested in November and winter crops sown with sufficient moisture. No rain fell in November and December. Season on the whole good. Rice outturn estimated at 11 annas. Warkas 8 to 10 annas. Rabi 10 annas in Alibág, Pen, Pauvel and Mángaon. Elsewhere 6 to 8 annas.

Tha'na, 1897.

Rain Periods.	TRA'NA.		KALYA'M.		MURBA'D.		SHA'BA'PUR.		MOKHA'DA.		BRIWADI.		BASSEIN.		VA'DA.		MA'HIM.		DÁHÁNU.		UMBAR-GAON.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
Early Rains ...	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.		In.	
Ante-Monsoon ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Monsoon-Kharif ...	97'04	58	97'51	52	74'28	52	85'71	51	80'19	50	95'24	51	73'84	46	87'79	52	52'62	47	45'61	41	37'96	44
Monsoon-Rabi ...	24'13	33	31'91	36	33'55	36	33'55	32	35'25	36	21'62	40	22'04	34	23'70	37	23'52	27	20'01	30	28'66	30
Late Rains ...	...	...	...	...	...	...	...	...	0'04	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	121'17	91	129'42	88	108'11	88	119'26	83	115'48	86	116'80	91	95'88	80	111'49	89	76'14	74	65'62	71	68'62	74
Average ...	102'50	90	106'93	87	104'96	84	110'64	89	102'36	88	107'70	85	82'16	73	96'50	85	61'24	65	75'00	70	69'15	69

General characteristics.—Inland, the district is well watered and well wooded. Rainfall abundant, being considerably more inland than on the coast and less towards the north than towards the south.

Remarks.—Total fall above the average except in the two northern talukas. The monsoon broke in the first week of June, but the rainfall was light and partial and stopped very soon. At the end of the month seedlings were suffering. From July, however, there was adequate rain and the crops flourished without any check till they were harvested in October—November. Rabi crops were put in under favourable circumstances in October. Their yield was estimated at 10 annas. The outturn of rice and nágli 10 and 12 annas, respectively. Irrigated garden crops in Máhim and Bassein yielded 12 annas.

Surat, 1897.

Rain Periods.	SURAT.		OLPÁD.		RÁNDER.		MÁNDVI.		DÁRDOL.		VÁLOD.		JALÁL-PUR.		CHIKHLI.		DUBSAR.		PÁRDI.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
Early Rains ...	In.		In.		In.		In.		In.		In.		In.		In.		In.		In.	
Ante-Monsoon...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Monsoon-Kharif ...	21.78	29	26.80	30	18.08	26	20.66	33	26.17	33	28.06	32	36.23	35	33.67	37	31.71	39	30.07	43
Monsoon-Rabi ...	17.24	24	8.30	23	12.08	22	12.15	26	15.72	27	23.31	33	20.03	24	19.90	24	21.03	23	27.33	24
Late Rains ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	30.03	53	35.16	53	31.07	49	36.71	59	41.89	60	51.37	65	46.26	59	53.66	61	53.33	61	64.35	71
Average ...	46.64	50	27.54	39	43.51	50	53.28	59	58.03	67	61.83	69	62.61	66	72.37	72	70.84	63	60.07	70

General characteristics.—Western portion all along the coast poor sandy soil; central belt with rich soil and moderate rainfall; further to the east, Dángs with heavy rainfall but light soil. As a rule, rain lighter on the coast than inland.

Remarks.—The total fall was below average throughout the district. In June the monsoon at first brought only light showers, and anxiety was felt towards the end of the month; but the "Punarvasu" and "Pushya" falls in July were continuous and heavy. Sowings were completed and transplantations vigorously carried on. More than sufficient rain fell in August. Cotton had to be re-sown in places. Luckily, in the last week, the rain was light and prevented further injury from excess of moisture. September rain, falling with intermissions, caused the kharif crops to thrive. The "Hast" showers in October were not heavy enough, and were followed by little or no rain in "Chitra." No rain fell thereafter until very late in February, when a heavy fall benefited the standing crops of wheat and cotton and secured crops in rice and sugar-cane. Kharif crops were reaped in good condition and yielded a good crop. Rabi felt some want of moisture in December and January and yielded only a middling crop in many places.

Broach, 1897.

Rain Periods.	BROACH.		ANKLESVAR.		HÁNSOT.		VÁGRA.		AMOD.		JAMBUSAR.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
Early rains ...	In.		In.		In.		In.		In.		In.	
Ante-Monsoon ...	...	...	...	...	...	...	...	...	...	...	...	...
Monsoon-Kharif ...	26.71	23	23.27	29	19.44	23	15.80	35	14.07	24	16.04	17
Monsoon-Rabi ...	15.03	23	15.54	26	13.98	20	15.79	21	9.58	15	11.00	19
Late Rains ...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	42.34	51	38.81	55	33.44	43	31.59	46	23.65	39	27.04	36
Average ...	39.71	46	35.57	47	33.95	45	29.92	45	37.69	41	34.51	43

General characteristics.—Rich alluvial plains growing cotton and wheat. Rainfall moderate but sure, being, as a rule, more plentiful in the Broach Taluka. The rainfall is supplemented by heavy dews from October to December.

Remarks.—Total rainfall below average in Hánsot, A'mod and Jambusar and above average in the other three talukas. The monsoon set in late in the middle of June, and even then the rain was insufficient for sowing. The retarded sowings were made in July. The falls in August and September were good and crops flourished. The "Hasta" and "Chitra" showers in October were also seasonable and useful for kharif crops and rabi sowings. In a few places the crops were injured by locusts. No rain fell after October, and the rabi crops suffered from want of it. Heavy general showers, late in February, did some good to the cotton and jowár in high lands. The outturn of jowári, bájri and paddy varied from 8 to 12 annas, cotton 10 to 12 annas, wheat 10 annas.

Kaira, 1897.

Rain Periods.	KAIRA.		MEHMAD- ABAD.		MÁTAR.		NADIÁD.		KAPAD- VANJ.		THÁSRA.		ANAND.		BORSAD.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
	In.		In.		In.		In.		In.		In.		In.		In.	
Early Rains ...	...	...	...	...	...	...	...	...	...	...	...	...	...	0.03	...	...
Ante-Monsoon ...	0.02	...	...	...	...	...	0.03	...	...	...	0.01	...	...	...	...	...
Monsoon-Kharif...	13.12	16	15.56	21	13.27	16	15.24	21	13.59	23	20.14	22	18.09	19	13.16	21
Monsoon-Rabi ...	10.93	20	11.10	17	15.69	19	12.96	20	10.16	22	14.01	21	18.41	22	18.52	25
Late Rains ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	24.07	36	26.66	38	23.96	35	27.63	41	23.75	44	34.16	43	35.13	41	31.88	46
Average ...	38.02	47	34.29	43	35.92	42	37.63	43	35.14	52	33.70	39	35.61	51	36.80	5

General characteristics.—The district is mostly one unbroken alluvial plain. In the north and north-east patches of rich rice land: the centre, a tract of most fertile soil yielding the choicest crops and westward a bare, though well cultivated, tract of rice land.

Remarks.—The number of rainy days was below the average and the aggregate fall also, except at two stations, where it was up to average. The June rain in almost all talukas amounted to only a few cents. The sowing rain fell late in July, but was sufficient for completing sowings. The August rain was heavy but not injurious. Rice wanted rather more rain, but other crops fared very well in September. There were a few "Hasta" and "Chitra" showers in October, but no rain fell in the next three months. This partial failure of rabi rain, combined with an unseasonable fall in February, served to damage the rabi crops. Taking 12 annas as the average, bajri yielded 10 annas, rice 6 annas, wheat 7 annas, gram 10 annas, cotton 7 annas.

Panch Maha'ls, 1897.

Rain Period.	GODHRA.		KÁLOL.		HÁLOL.		DOHAD.		JHÁLOD.		JAMBUGHODA.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
	In.		In.		In.		In.		In.		In.	
Early Rains ...	...	...	0.01	...	...	...	...	...	...	...	...	...
Ante-Monsoon ...	...	...	...	...	...	...	0.02	...	...	...	0.05	...
Monsoon-Kharif ...	24.52	28	15.54	26	15.64	30	12.83	23	14.43	25	26.47	30
Monsoon-Rabi ...	11.49	18	12.63	17	14.03	22	10.24	20	9.75	18	17.22	21
Late Rains ...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	38.01	40	27.38	43	29.67	52	22.59	43	24.18	43	43.74	51
Average ...	40.71	54	39.69	57	43.39	50	29.00	43	30.16	46	48.56	57

General characteristics.—Rainfall lighter and later in the east than in the western division.

Remarks.—The aggregate fall was less than the average everywhere. The monsoon-kharif rain, which commenced in the middle of June, was hardly sufficient for sowings. During the next three months of July, August and September the rains were favourable and well distributed. The "Hasta" rain in October was very scanty and no rain fell afterwards. There was a good fall in February, but it was too late for the rabi crops, some of which were then being reaped. The rabi rains thus ceased rather too early. Rice and all rabi crops felt want of sufficient moisture. The kharif crops yielded 9 to 10 annas. Rice 7 annas at the best. The rabi crops were 7 annas, or below that in places.

Ahmedabad 1897.

Rain Periods.	AHMAD- ABAD.		PARANTIJ.		MODÁSA.		SÁNAND.		VIRAMGÁM.		DHOLKA.		DHAN- DHUKA.		GOGHA.	
	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.	Fall.	Rainy days.
	In.		In.		In.		In.		In.		In.		In.		In.	
Early Rains ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ante-Monsoon ..	..	..	0·02	..	..	..	0·02	..	..	..	..	..	..	..	..	..
Monsoon-Kharif ..	17·94	25	15·19	24	15·83	24	20·28	25	19·41	17	14·75	23	8·17	15	15·17	23
Monsoon-Rabi ..	13·24	19	12·87	22	8·83	17	8·71	18	8·86	16	14·57	20	9·80	16	8·63	12
Late Rains ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	31·18	44	28·08	46	24·71	41	29·01	43	28·27	33	29·82	42	17·97	31	23·80	34
Average ..	27·95	46	27·25	48	33·78	49	27·98	40	28·99	34	34·19	42	27·43	31	25·70	35

General characteristics.—Except in the hilly parts of Modása, where the supply is sometimes considerable, the rainfall throughout the district is generally very light.

Remarks.—The total fall was slightly above the average in Ahmedabad, Parántij and Sánand tálukás; elsewhere under the average. The monsoon commenced in the middle of June. But the "Árdrá" fall being very light, sowings were only partially effected. The rainfall in the following two months was excellent for all agricultural operations. September rain was also good, except that it proved rather heavy for the bájri and jowári crops, which were slightly damaged in places. Other crops did very well. Light scattered showers only fell in the first week of October, which repaired the slight injury done to bájri and jowári, but were too late for rabi crops. No more rain fell. Among the kharif crops, jowár gave an outturn of 10 to 12 annas, rice 8 annas, bájri 12 to 15 annas. The rabi yields of tur 12 annas, cotton 12 annas, wheat 12 to 15 annas.

STATISTICS.
AGRICULTURAL.
(CHAPTER VII.)

- I.—Area of Available Statistics.
- II.—Area, Cultivated and Uncultivated.
- III.—Crops.
- IV.—Irrigation.
- V.—Agricultural Stock.
- II. A.—Details of "Fallow."
- III. A.—Principal Fruit-bearing Trees.
- III. B.—Details under Khari'f and Rabi Crops.

I.—Area of Available Statistics, 1897-98.

No. 1331-5 of

No.	District.	NUMBER AND AREA OF VILLAGES.*						VILLAGES FOR WHICH STATISTICS ARE AVAILABLE.								VILLAGES FOR WHICH STATISTICS ARE NOT AVAILABLE.					
		Government.		Alienated.		Total.		Surveyed Government Rayatwari.		Other Government.		Surveyed Alienated.		Total.		Government.		Alienated.		Total.	
		No.	Acres.	No.	Acres.	No.	Acres.	No.	Acres.	No.	Acres.	No.	Acres.	No.	Acres.	No.	Acres.	No.	Acres.	No.	Acres.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
A.—BOMBAY PRESIDENCY PROPER.																					
<i>I.—Gujarat.</i>																					
1	Ahmedabad	833	2,320,087	52	123,517	885	2,443,604	448	1,055,330	341	1,115,896	3	2,100	792	2,173,116	44	149,071	49	121,417	93	270,488
2	Kaira	563	963,851	28	27,462	591	1,021,313	436	760,008	91	174,550	...	...	527	934,558	36	59,293	29	27,462	64	66,755
3	Panch Mahals	611	901,138	79	126,449	691	1,027,637	403	626,231	149	198,177	44	72,536	597	896,944	59	76,780	35	63,918	94	130,693
4	Broach	408	918,387	15	18,723	423	937,110	407	917,205	1	1,179	...	...	408	918,387	...	...	15	18,723	15	18,723
5	Surat	520	1,026,763	32	31,055	553	1,057,818	310	1,014,526	10	12,242	4	5,254	825	1,032,022	...	...	29	25,601	29	25,601
<i>II.—Deccan.</i>																					
6	Khandesh	3,224	6,476,295	111	212,851	3,335	6,689,146	2,704	4,654,309	155	299,909	62	106,623	2,932	5,060,746	364	1,522,177	40	106,223	419	1,629,400
7	Nasik	1,536	3,456,576	169	267,731	1,705	3,724,307	1,501	3,396,706	...	...	81	169,780	1,682	3,566,486	85	69,670	78	97,941	113	157,811
8	Ahmednagar	1,226	2,678,916	147	537,101	1,373	3,216,017	1,233	2,672,196	...	...	111	442,827	1,334	4,116,025	3	6,618	36	94,274	39	190,892
9	Poona	1,004	2,872,389	190	551,168	1,194	3,423,557	1,022	2,668,084	...	...	169	492,269	1,173	3,358,363	2	6,295	30	59,809	32	65,104
10	Bhopalpur	608	2,703,533	49	203,650	657	2,907,183	663	2,702,533	...	...	49	203,650	717	2,906,343	...	...	...	...	...	...
11	Salara	903	2,478,522	396	609,323	1,358	3,087,845	963	2,478,522	...	...	215	395,800	1,177	2,874,322	...	...	181	213,523	181	213,523
<i>III.—Karnatak.</i>																					
12	Belgaum	913	2,345,519	221	629,955	1,134	2,975,474	913	2,345,519	...	...	160	461,214	1,073	2,806,733	...	...	61	166,741	61	166,741
13	Bijapur	1,012	2,212,903	161	415,862	1,173	2,628,765	1,012	2,212,903	...	...	155	403,691	1,167	3,616,704	...	...	6	11,971	6	11,971
14	Dharwar	1,228	2,688,804	184	266,599	1,412	2,955,403	1,237	2,688,072	...	...	137	189,371	1,324	2,878,943	1	733	47	75,709	48	76,441
<i>IV.—Konkan.</i>																					
15	Thana	1,606	2,181,161	91	111,104	1,697	2,292,265	1,588	2,170,516	18	10,645	33	39,873	1,639	2,221,033	...	...	58	71,232	59	71,232
16	Kolaba	1,540	1,319,383	92	44,450	1,632	1,363,833	1,540	1,319,383	469	526,978	13	7,447	1,551	1,316,841	2	10,294	79	37,003	81	47,297
17	Ratnagiri	1,270	2,381,606	70	177,469	1,340	2,559,075	1,270	2,381,606	...	...	...	...	2,071	441,752	1,066	1,947,606	67	170,016	1,133	2,117,622
18	Kanara	1,417	2,525,153	...	...	1,417	2,525,153	1,417	2,525,153	...	...	...	...	1,417	2,525,153	...	...	...	...	...	...
Total A		20,903	44,480,044	2,088	4,344,640	22,991	48,824,684	18,027	38,288,190	1,264	2,353,118	1,240	2,993,792	20,532	43,635,100	1,612	3,838,736	847	1,350,843	2,459	5,189,584
B.—SIND.																					
19	Karachi	907	9,101,182	16	43,626	923	9,144,808	818	4,759,263	69	4,311,919	16	43,626	923	9,144,808	...	...	...	...	...	...
20	Hyderabad	1,367	4,927,743	223	372,447	1,590	5,300,190	1,367	4,927,743	...	...	223	372,447	1,590	5,300,190	...	...	...	...	...	...
21	Sukkarpur	1,163	4,713,822	69	513,405	1,232	5,227,227	1,144	4,673,933	19	44,929	59	513,405	1,222	5,212,267	...	...	...	...	...	...
22	Upper Sind Frontier	392	1,638,247	7	4,162	399	1,642,409	392	1,638,247	3	24,054	6	27,377	399	1,642,409	...	...	1	13,235	1	13,235
23	Thar and Parkar	726	6,579,941	4	1,840	730	6,581,781	645	2,039,522	131	6,540,419	4	13,402	730	6,579,941	...	...	...	...	...	...
Total B		4,555	28,965,980	309	993,502	4,864	29,959,482	4,264	17,836,659	291	11,129,321	308	9,80,117	4,563	29,946,097	...	...	1	13,355	1	13,355
GRAND TOTAL		25,458	73,446,024	2,397	5,338,142	27,855	78,784,166	22,291	56,124,849	1,555	13,482,439	1,548	3,973,909	25,395	73,581,197	1,612	3,852,736	848	1,364,253	2,460	5,202,969

* Exclusive of Foreign Territory, Feudatory and Tributary States.

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II—Area, Cultivated and Uncultivated, 1897-98.

No.	District.	Total Area as in Columns 5, 6, 7 and 8 of Return No. 1.	CULTIVATED AREA.					UNCULTIVATED AREA.						
			Gross Area cropped.	Deduct Area cropped more than once.	Remainder net cropped area.	Add current fallows.	Total, columns 5 and 6.	Details of column 7.		Available for cultivation.		Not available for cultivation.		Total, Columns 10 to 13.
								Assessed Land.	Unassessed Land.	Assessed Land.	Unassessed Land.	Forest.	Others.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
A.—BOMBAY PRESIDENCY PROPER.		Acres.												Acres.
I.—Gujarāt.														
1	Ahmedabad	1,055,330 1,115,686 2,100	639,901 635,055 1,568	21,523 3,827 85	618,378 531,258 1,481	122,181 301,498 400	740,559 832,756 1,881	736,575 832,756 1,881	3,984	112,833 97	8,556 411	13,116	180,206 282,519 122	314,771 282,530 219
	Total	2,173,116	1,176,552	25,435	1,151,117	424,079	1,575,196	1,571,212	3,984	1,12,930	8,967	13,116	462,007	597,920
2	Kaira	760,008 174,550	516,804 152,508	23,715 6,025	493,089 146,483	81,141 12,339	574,230 158,822	573,865 158,770	265 52	63,478 300	1,104 22		101,108 15,408	185,778 15,729
	Total	934,558	669,312	29,740	689,572	93,480	733,052	732,735	317	83,778	1,216		116,512	201,506
3	Panch Mahāls	626,231 198,177 72,536	397,032 73,791 42,691	55,421 5,783 5,200	251,611 68,003 37,485	43,007 82,041 26,835	294,618 150,044 64,320	293,473 149,749 64,320	1,745 295	54,685 1,124 679	49,890 741	185,488 16,723	41,550 29,545 7,537	331,613 42,133 8,216
	Total	896,944	423,514	66,415	357,099	151,883	508,982	507,542	1,440	56,488	50,631	202,211	78,632	387,962
4	Broach	917,208 1,179	567,483 599	1,153	566,320 899	85,884 243	652,213 1,142	643,663 1,142	8,545	20,403	2,124		242,469 37	264,985 27
	Total	918,387	568,381	1,153	5,67,228	86,127	653,355	644,810	8,545	20,403	2,124		242,505	265,032
5	Surat	1,014,528 12,242 5,254	527,091 5,955 3,737	5,4939 299 15	472,153 5,656 3,722	264,808 4,016 1,365	736,961 9,672 5,087	726,907 9,672 5,081	10,054 6	28,340 654 25	20,762 774	47,012	180,471 1,142 142	277,565 2,570 167
	Total	1,032,022	536,783	55,252	481,531	270,189	751,720	741,660	10,060	29,019	21,536	47,992	181,755	280,302
II.—Deccan.														
6	Khāndesh	4,654,309 299,809 106,628	2,920,931 54,769 69,476	40,765 353	2,580,166 54,768 69,123	2,44,053 952 13,861	3,124,219 55,720 82,984	3,117,935 3,014 82,953	6,284 52,706 31	271,340 4 7,102	103,493 110,121 4,570	694,101 133,352 749	561,151 612 11,223	1,530,090 244,089 23,544
	Total	5,060,746	3,045,175	41,118	3,004,057	258,866	3,262,923	3,203,902	59,021	278,446	218,189	728,202	572,986	1,797,823
7	Nāsik	3,396,706 169,750	1,761,980 108,178	37,530 2,628	1,724,450 105,550	445,134 25,723	2,169,574 131,273	2,169,351 131,253	223 21	51,002 6,073	83,553 8,759	782,707 1,593	309,870 22,082	1,227,132 38,507
	Total	3,566,486	1,870,158	40,158	1,830,000	470,847	2,300,847	2,300,603	244	57,075	92,312	784,300	331,952	1,265,639
8	Ahmednagar	3,672,193 442,827	23,49,982 297,821	57,704 4,683	2,282,278 293,338	447,935 76,523	2,740,213 369,861	2,740,164 369,860	49 1	28,496 4,969	8,861 6,445	541,750 268	352,878 61,284	831,955 72,966
	Total	4,115,025	2,647,903	62,287	2,585,616	524,458	3,110,074	3,110,024	50	33,465	15,306	542,078	414,162	1,004,951

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9	Poona	Rajawari ... Other Government. Alienated ...	2,968,094	1,646,081	79,248	1,568,833	525,409	2,092,242	2,061,865	377	6,941	2,624	451,957	312,330	773,552
			492,269	309,599	16,236	293,362	101,451	394,813	394,790	23	6	2,863	84,587	97,450	
			Total ...	3,358,363	1,955,679	95,484	1,860,195	626,860	2,487,055	2,456,655	400	6,947	2,624	454,820	406,917	871,308
10	Sholapur	Rajawari ... Other Government. Alienated ...	2,702,533	1,855,687	41,012	1,814,675	478,777	2,293,452	2,293,245	207	11,637	198	177,537	219,509	409,081
			203,850	138,407	4,998	133,409	36,793	170,202	170,149	53	125	3,331	30,192	33,648	
			Total ...	2,906,383	1,994,094	46,010	1,948,084	515,570	2,463,654	2,463,394	260	11,962	3,529	177,537	219,701	442,729
11	Satara	Rajawari ... Other Government. Alienated ...	2,473,523	1,421,154	112,898	1,308,458	482,609	1,791,067	1,790,584	483	15,632	3,892	434,935	233,196	687,455
			395,800	245,056	24,003	221,083	119,704	340,787	340,773	14	427	2,651	14,558	39,377	55,013
			Total ...	2,874,322	1,666,240	136,699	1,529,541	602,313	2,131,854	2,131,357	497	16,059	6,343	447,493	272,573	742,468
III—Karnatak.															
12	Belgaum	Rajawari ... Other Government. Alienated ...	2,315,519	1,442,890	39,474	1,403,416	290,038	1,693,454	1,690,575	2,879	27,699	40,184	427,418	158,764	652,065
			493,214	316,113	5,329	310,784	119,336	430,020	430,000	20	6	1,469	2,907	28,513	33,194
			Total ...	2,808,733	1,759,003	44,803	1,714,200	409,274	2,123,474	2,120,575	2,899	27,704	41,653	430,325	185,577	685,259
13	Bijapur	Rajawari ... Other Government. Alienated ...	2,212,903	2,338,003	4,368	2,333,617	451,527	2,815,144	2,815,041	103	39,081	17,592	175,484	165,602	397,759
			413,891	275,102	429	274,873	71,750	346,423	346,277	146	6,793	1,017	9,845	37,908	57,463
			Total ...	3,616,794	2,613,105	4,815	2,608,230	553,277	3,161,567	3,161,318	249	47,879	18,609	185,329	203,410	455,227
14	Dharwar	Rajawari ... Other Government. Alienated ...	1,689,072	2,036,510	69,671	1,967,339	229,821	2,197,660	2,197,498	162	51,471	223	235,561	203,153	438,412
			190,871	111,831	2,905	108,926	53,727	142,696	142,653	43	9,221	12,973	15,981	39,176	
			Total ...	2,869,943	2,148,341	71,536	2,076,808	253,548	2,340,356	2,340,149	207	60,692	13,195	235,561	219,139	528,587
IV—Konkan.															
15	Thana	Rajawari ... Other Government. Alienated ...	2,170,516	447,073	3,437	413,635	443,846	837,431	879,322	6,159	43,195	59,319	729,548	450,073	1,253,036
			10,845	1,004	9	995	6,223	7,223	7,223	21	1,747	197	1,467	3,422	
			39,873	9,133	71	9,062	19,833	28,837	28,897	2	5,970	202	4,811	19,945	
Total ...	2,221,033	457,201	3,517	453,634	469,907	923,591	915,432	8,159	43,218	67,026	720,947	457,251	1,297,412		
16	Kolaba	Rajawari ... Other Government. Alienated ...	781,814	844,574	6,223	238,351	178,459	416,810	410,407	6,403	3,229	19,919	100,539	148,439	305,166
			529,979	156,807	3,744	153,153	143,565	296,719	296,454	254	5,461	91,443	131,550	200,290	
			7,447	2,368	53	2,315	2,547	5,162	5,162	4	493	1,792	2,265		
Total ...	1,316,311	403,530	10,020	393,819	324,871	719,690	712,033	6,657	3,232	25,872	284,975	283,572	507,651		
17	Ratnagiri	Rajawari ... Other Government. Alienated ...	450,447	121,598	8,780	112,815	148,390	263,205	263,069	117	2,099	5,747	7,333	112,094	157,242
			14,852	3,324	121	3,203	6,125	9,327	9,327	23	172	4,325	4,656		
			7,453	3,447	250	3,197	1,009	4,896	4,896	572	1,905	2,557			
Total ...	441,752	130,365	9,151	121,214	156,214	277,423	277,311	117	2,123	6,491	7,333	148,374	164,924		
18	Kánara	Rajawari ... Other Government. Alienated ...	2,525,152	2,17,229	11,727	235,502	93,602	334,104	323,533	671	52,654	1,299	1,992,215	144,550	2,191,048
			38,249,194	21,34,998	68,403	20,728,598	5,091,611	25,517,206	25,767,194	50,013	904,841	424,273	6,991,672	4,116,726	12,479,404
			2,93,504	1,94,649	67,104	1,94,649	651,747	2,619,223	2,619,223	354	37,829	4,220	3,005	3,005	4,100
Total ...	2,525,152	217,229	11,727	235,502	93,602	334,104	333,533	571	52,684	1,299	1,992,215	144,550	2,191,048		
Total A. ...															
Total ...															

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II.—Area, Cultivated and Uncultivated, 1897-98—continued.

No.	District.	Total area as in Columns 5, 6, 7 and 8 of Return No. 1.	CULTIVATED AREA.					UNCULTIVATED AREA.						Total, Columns 10 to 13.
			Gross area cropped.	Deduct area cropped more than once.	Remainder net cropped area.	Add current fallows.	Total, Columns 5 and 6.	Details of Column 7.		Available for cultivation.		Not available for cultivation.		
								Assessed land.	Unassessed land.	Assessed land.	Unassessed land.	Forest.	Others.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
B.—SIND.														
19	Karachi ...	Rayatwari ... 4,789,263 Other Government... 4,811,919 Alienated ... 48,626 Total ... 9,149,808	534,207 81,479 10,814 626,500	33,638 1,638 79 35,365	600,619 79,881 10,735 591,135	422,165 97,776 37,891 557,831	922,684 177,656 48,626 1,148,966	853,154 27,038 32,981 913,173	69,530 150,618 15,645 235,793	115,003 973 116,576	903,407 118,465 1,021,872	136,330 1,422 137,752	2,711,239 4,013,403 6,724,642	3,860,579 4,134,263 8,000,842
20	Hyderabad ...	Rayatwari ... 4,927,748 Other Government... .. Alienated ... 372,407 Total ... 5,300,155	856,808 115,612 972,420	28,428 1,523 29,949	828,382 114,089 942,471	960,507 258,221 1,218,818	1,788,979 872,810 2,030,997	1,718,833 812,164 2,030,997	70,146 80,146 130,292	384,112 384,112	1,550,664 1,550,664	123,633 133,633	1,070,360 97 1,070,457	3,138,709 97 3,138,866
21	Shikarpur ...	Rayatwari ... 4,873,933 Other Government... 44,929 Alienated ... 513,405 Total ... 5,232,267	1,152,954 20,833 72,080 1,245,867	157,003 1,294 2,967 161,264	995,951 19,539 69,113 1,084,603	429,214 3,890 444,292 877,386	1,425,165 23,419 513,405 1,961,989	1,339,779 511,955 1,850,734	86,388 23,419 1,450 111,255	141,358 141,358	1,215,726 11,798 1,227,524	305,100 305,100	1,586,584 8,712 1,596,296	3,243,769 21,510 3,270,278
22	Upper Sind Frontier ...	Rayatwari ... 1,406,193 Other Government... 232,054 Alienated ... 37,277 Total ... 1,665,524	404,957 26,537 9,342 440,836	23,023 1,137 189 24,349	381,984 25,400 9,153 416,437	421,288 18,124 439,412	808,222 25,400 27,277 855,899	745,449 2,417 747,866	57,773 25,400 24,860 108,033	40,595 40,595	226,032 93,872 319,704	44,712 44,712	291,632 112,982 404,614	602,971 206,654 809,625
23	Thar and Parkar ...	Rayatwari ... 2,039,522 Other Government... 6,540,419 Alienated ... 18,402 Total ... 8,598,343	333,280 441,991 3,707 778,978	9,874 1,518 11,192	323,606 440,473 3,707 767,786	630,600 875,673 14,695 1,071,058	1,004,296 816,140 18,402 1,838,844	962,279 734,686 17,790 1,714,655	42,017 81,560 612 124,189	73,088 4,157 77,245	565,873 518,699 1,084,772	141,467 141,467	254,798 5,201,217 5,456,015	1,035,226 5,724,273 6,759,499
Total, B. ...		Rayatwari ... 17,838,659 Other Government... 11,129,321 Alienated ... 980,117 Total ... 29,946,097	3,282,208 670,840 211,555 4,064,601	251,814 5,547 4,758 262,119	3,030,392 565,289 26,797 3,802,482	2,913,954 477,328 773,223 4,164,505	5,944,346 1,042,621 980,020 7,966,987	5,618,404 761,624 877,307 7,257,425	325,852 280,997 102,713 709,562	754,756 5,130 759,886	4,461,702 742,834 5,204,536	761,242 1,422 762,664	5,914,613 9,337,314 97 15,252,024	11,892,813 10,086,700 97 21,979,110
GRAND TOTAL ...		Rayatwari ... 156,124,849 Other Government... 13,482,439 Alienated ... 8,973,909 Total ... 73,581,197	24,676,204 1,556,070 2,146,204 28,377,478	920,217 25,360 71,862 1,017,489	23,755,987 1,529,710 3,074,343 27,360,039	3,005,565 1,034,335 1,424,970 10,464,870	31,761,552 2,564,045 3,499,312 37,824,909	31,385,689 2,229,741 3,396,241 37,011,670	375,864 834,304 103,071 813,239	1,659,199 7,265 37,529 1,703,993	4,890,935 862,273 48,250 5,801,458	7,751,914 243,139 30,985 8,026,038	10,061,249 9,805,717 357,833 20,224,799	24,363,297 10,918,394 474,597 35,756,288

III.—Crops, 1897-98.

No. 1331-9

		I.—CEREALS.															
No.	District.	Jowari (Great Millet, Sorghum vulgare, &c.)	Bajri (Spiked Millet, Pennisetum typhoides)	Paddy (Bhat), Oryza sativa.	Wheat (Gahni), Triticum aestivum.	Barley (Jav, Sata), Hordeum vulgare.	Maize (Maka), Zea mays.	Kodra (Harik), Paspalum acrobiculatum.	Ragi (Nagli), Eleusine coracana.	Rdli Kang (Italian Millet), Panicum Italicum.	Varl (Sava and Barag), Panicum mollicum P. miliare.	Bandi, Barli, Panicum flavidum.	Shardli, Panicum pilosum.	Amaranth (Rugira), Amaranthus fruticosus.	Others.	Total, I.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
A—BOMBAY PRESIDENCY PROPER.																	
I.—Gujarat.																	
1	Ahmedabad	{ Rayatwari ... 117,889 Other Government ... 119,531 Alienated ... 467 Total ... 267,677	{ 94,099 66,098 137 Total ... 150,334	{ 43,515 10,833 551 Total ... 64,931	{ 105,370 95,483 50 Total ... 200,903	{ 20,210 5,448 107 Total ... 25,771	{ 3,392 928 Total ... 4,250	{ 11,119 6,069 5 Total ... 17,182	{ 4,278 1,072 30 Total ... 5,375	{ 99 652 Total ... 950	{ 3,864 2,121 8 Total ... 5,513	{ -6,552 10,321 Total ... 25,773	{ 37 Total ... 37	{ 37 Total ... 37	{ 37 Total ... 37	{ 37 Total ... 37	Acres. 439,704 317,934 1,368 758,006
2	Kaira	{ Rayatwari ... 41,900 Other Government ... 11,188 Alienated ... Total ... 53,146	{ 187,818 45,786 Total ... 183,004	{ 87,472 28,436 Total ... 100,908	{ 21,019 1,696 Total ... 22,715	{ 6,647 185 Total ... 6,832	{ 595 83 Total ... 628	{ 77,344 83,013 Total ... 110,357	{ 40,463 5,412 Total ... 54,894	{ 265 64 Total ... 349	{ 856 572 Total ... 1,428	{ 1,628 23 Total ... 1,654	{ 168 64 Total ... 200	{ 168 64 Total ... 200	{ 168 64 Total ... 200	{ 168 64 Total ... 200	422,523 114,554 537,077
3	Panch Mahals	{ Rayatwari ... 2,917 Other Government ... 2,714 Alienated ... 607 Total ... 6,298	{ 20,464 9,547 4,054 Total ... 43,045	{ 41,148 11,080 5,445 Total ... 60,673	{ 9,214 1,539 214 Total ... 12,059	{ 1,079 298 214 Total ... 1,621	{ 78,360 19,450 14,503 Total ... 112,313	{ 18,579 5,024 2,981 Total ... 26,584	{ 10,300 3,176 1,621 Total ... 14,997	{ 1418 956 530 Total ... 2,884	{ 11,094 3,829 1,604 Total ... 16,514	{ 66 263 Total ... 329	{ 5 Total ... 5	{ 1,404 805 385 Total ... 2,487	{ 1,404 805 385 Total ... 2,487	309,139 59,759 83,078 200,964	
4	Broach	{ Rayatwari ... 153,413 Other Government ... 170 Alienated ... Total ... 153,583	{ 14,671 13 Total ... 14,884	{ 20,973 20 Total ... 20,993	{ 50,316 10 Total ... 50,258	{ 11 Total ... 11	{ 9,305 2 Total ... 9,307	{ 252 Total ... 252	{ 1 Total ... 1	{ 203 Total ... 203	{ 8 Total ... 8	{ 1 Total ... 1	{ 1 Total ... 1	{ 1 Total ... 1	{ 1 Total ... 1	{ 1 Total ... 1	249,286 216 249,501
5	Surat	{ Rayatwari ... 136,136 Other Government ... 1,983 Alienated ... 2,592 Total ... 141,010	{ 7,916 2 12 Total ... 7,960	{ 103,669 1,078 301 Total ... 105,048	{ 30,065 11 Total ... 30,676	{ 3 Total ... 3	{ 33,975 355 107 Total ... 34,437	{ 13,414 96 48 Total ... 13,548	{ 1 Total ... 1	{ 69 Total ... 69	{ 791 1 Total ... 792	{ 67 Total ... 67	{ 67 Total ... 67	{ 119 Total ... 119	{ 119 Total ... 119	{ 119 Total ... 119	326,874 8,516 3,361 333,750
II.—Deccan.																	
6	Khandesh	{ Rayatwari ... 602,501 Other Government ... 5,253 Alienated ... 30,563 Total ... 629,336	{ 799,230 7,185 14,929 Total ... 820,693	{ 18,591 8,373 1,174 Total ... 25,433	{ 143,114 5,090 2,255 Total ... 150,450	{ 23 40 Total ... 69	{ 7,073 291 213 Total ... 7,577	{ 3,729 3,163 22 Total ... 6,905	{ 6,756 2,199 223 Total ... 9,199	{ 2,012 34 77 Total ... 2,125	{ 4,217 64 197 Total ... 5,020	{ 2,720 2,613 105 Total ... 5,438	{ 1,552 62 91 Total ... 2,005	{ 214 1 83 Total ... 249	{ 29 30 Total ... 59	{ 29 30 Total ... 59	1,659,683 35,609 29,391 1,663,981
7	Nasik	{ Rayatwari ... 199,774 Other Government ... 4,383 Alienated ... Total ... 114,157	{ 539,539 42,758 Total ... 582,196	{ 52,397 2,506 Total ... 56,203	{ 137,584 21,306 Total ... 207,190	{ 78 Total ... 78	{ 3,845 291 78 Total ... 3,923	{ 4 Total ... 4	{ 108,019 6,716 Total ... 114,734	{ 1,067 67 Total ... 1,134	{ 23,710 1,729 Total ... 30,439	{ 41 5 Total ... 46	{ 3,101 95 Total ... 3,409	{ 304 13 Total ... 317	{ 47 1 Total ... 53	{ 47 1 Total ... 53	1,331,120 59,770 1,413,690
8	Ahmednagar	{ Rayatwari ... 614,453 Other Government ... 146,329 Alienated ... Total ... 900,777	{ 883,774 89,630 Total ... 975,404	{ 13,315 75 Total ... 13,390	{ 133,843 12,605 Total ... 151,408	{ 355 43 Total ... 431	{ 1,067 232 Total ... 2,319	{ 315 1 Total ... 316	{ 20,516 10 Total ... 20,526	{ 12,674 952 Total ... 13,626	{ 13,347 86 Total ... 12,033	{ 53 2 Total ... 57	{ 3,417 23 Total ... 3,437	{ 214 15 Total ... 229	{ 60 27 Total ... 636	{ 60 27 Total ... 636	1,505,292 219,999 2,155,289

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III.—Crops, 1897-98—continued.

No.	District.	I.—CEREALS.														Total, i.
		Jowari (Great Millet), Sorghum vulgare, &c.	Bajri (Spiked Millet), Pennisetum typhoides.	Paddy (Bhát), Oryza sativa.	Wheat (Gahu), Triticum aestivum.	Barley (Jav, Sáru), Hordeum vulgare.	Maize (Maka), Zea mays.	Kodra (Harik), Paspalum scrobiculatum.	Ragi (Nágl), Eleusine coracana.	Rala, Kang (Italian Millet), Panicum Italicum.	Vari (Sára and Barg), Panicum malaccum P. nullare.	Banti, Banti, Panicum davidum.	Bhadli, Panicum plossum.	Amaranth (Rájsira), Amaranthus frutescens.	Others.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A.—BOMBAY PRESIDENCY PROPER—contd.																
II.—Deccan—contd.																
9	Poona ...	674,850	474,583	61,644	60,687	899	1,603	107	37,493	1,356	24,622	71	2,801	69	3,585	1,313,680
	{ Rayatwari ...															
	{ Other Government ...															
	{ Alienated ...	104,921	116,389	7,638	12,261	95	136	1	4,710	288	1,947	49	383	5	585	249,406
	Total ...	779,271	590,972	69,279	72,948	904	1,639	108	42,193	1,644	26,579	120	3,184	74	4,170	1,593,085
10	Sholapur...	1,145,727	336,404	18,269	37,411	2,547	12,031	64	54	2,794	5,393	3	1,563	90	1	1,402,441
	{ Rayatwari ...															
	{ Other Government ...															
	{ Alienated ...	89,878	23,292	885	2,583	153	923		4	177	86		2	7		114,990
	Total ...	1,232,605	259,786	19,154	39,994	2,700	12,954	64	58	2,971	5,479	3	1,565	97	1	1,577,431
11	Sátára ...	484,420	350,436	84,082	44,616	3,861	8,999	29	89,915	20,353	42,402	44		470	4,691	1,033,818
	{ Rayatwari ...															
	{ Other Government ...															
	{ Alienated ...	78,846	54,613	11,771	8,154	696	1,939		11,446	6,149	11,486	2		207	336	185,143
	Total ...	562,765	405,049	45,853	52,770	4,057	10,937	29	51,361	26,502	53,888	46		677	5,027	1,218,961
III.—Karnátak.																
12	Belgaum...	586,598	111,842	108,262	78,951	89	7,932	41	40,983	51,141	23,316			4	265	1,009,234
	{ Rayatwari ...															
	{ Other Government ...															
	{ Alienated ...	136,484	40,873	6,951	13,686	23	2,057		5,243	10,108	4,632				25	220,087
	Total ...	722,882	152,715	115,213	87,637	127	9,989	41	46,226	61,249	32,948			4	290	1,229,321
13	Bijápur ...	1,409,288	265,120	9,227	114,039	8	1,896	26	106	16,402	7,257			1	9	1,822,979
	{ Rayatwari ...															
	{ Other Government ...															
	{ Alienated ...	177,804	19,937	588	10,707	1	338	1	3	2,147	623	1				211,650
	Total ...	1,586,592	285,057	9,815	125,346	9	2,234	27	109	17,549	7,880	1		1	9	2,034,629
14	Dhárwár...	656,118	4,947	139,209	198,788	6	67	19	39,812	60,946	40,448	24				1,144,372
	{ Rayatwari ...															
	{ Other Government ...															
	{ Alienated ...	38,569	204	17,894	7,990		4		4,129	4,044	2,411					75,245
	Total ...	694,687	5,151	157,103	204,776	6	61	19	43,941	70,990	42,859	24				1,219,617
IV.—Konkan.																
15	Thána ...	39		300,091	107		2	12,580	55,535		22,067					390,471
	{ Rayatwari ...															
	{ Other Government ...			860												860
	{ Alienated ...			7,556					560		323					8,429
	Total ...	39		308,507	107		2	12,580	56,135		22,390					309,760

16	Kolaba ...	{	Rayatwari ...	.....	.....	184,032	.....	.....	.....	3,434	22,503	.....	17,720	.....	.....	.....	.....	217,689	
			Other Government...	.....	.....	60,616	.....	.....	.....	.....	12,824	37,570	.....	31,289	.....	.....	.....	.....	142,299
			Alienated ...	.....	.....	1,967	.....	.....	.....	.....	.....	181	.....	121	.....	.....	.....	.....	2,269
			Total ...	.....	.....	246,635	.....	.....	.....	.....	16,258	60,253	.....	49,130	.....	.....	.....	.....	372,276
17	Ratnagiri...	{	Rayatwari ...	.....	6	49,200	.....	1	.....	3	15,384	21,176	21	10,253	.....	.....	.....	96,043	
			Other Government...	.....	.....	993	.....	.....	.....	.....	.....	661	811	.....	307	.....	.....	.....	2,472
			Alienated ...	.....	.....	1,521	.....	.....	.....	.....	.....	225	704	.....	174	.....	.....	.....	2,694
			Total ...	.....	6	51,714	.....	1	.....	2	16,170	22,550	21	10,734	.....	.....	.....	.....	101,198
18	Kánara ...	{	Rayatwari ...	.....	1,862	192,232	.....	.....	.....	.....	863	6,721	77	292	.....	.....	.....	201,547	
			Other Government...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
			Alienated ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
			Total ...	.....	1,862	192,232	.....	.....	363	.....	6,721	77	292	.....	.....	.....	.....	.....	201,547
Total, A.	{	Rayatwari ...	6,967,029	4,252,469	1,477,659	1,212,555	35,183	129,091	186,045	474,377	174,228	250,204	23,019	12,627	1,565	11,342	15,296,391		
		Other Government...	140,826	119,591	107,288	104,129	5,977	29,672	61,000	63,117	972	35,831	25,738	925	45	714	675,815		
		Alienated ...	797,932	406,907	68,143	92,583	1,367	20,462	3,343	35,578	24,164	24,353	1,829	804	280	1,362	1,477,577		
		Total ...	7,905,687	4,776,856	1,653,089	1,409,247	42,527	169,205	250,388	563,072	199,364	310,388	50,586	14,356	1,890	13,418	17,360,073		
B.—SIND.																			
19	Karachi ...	{	Rayatwari ...	101,385	25,231	210,097	63,026	9,251	.....	.....	.....	806	7	132	.....	.....	.....	.....	410,457
			Other Government...	24,741	644	16,233	2,698	285	.....	.....	.....	3	.....	.....	.....	.....	.....	.....	43,093
			Alienated ...	4,583	344	1,918	1,416	111	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8,372
			Total ...	129,709	26,219	228,247	67,140	9,647	522	.....	809	7	132	.....	.....	.....	.....	.....	462,432
20	Hyderabad	{	Rayatwari ...	108,439	249,067	196,335	62,691	4,299	74	.....	19	13	399	.....	.....	.....	.....	.....	611,513
			Other Government...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
			Alienated ...	7,764	8,389	31,000	4,824	2,320	70	.....	.....	7	24	.....	.....	.....	.....	.....	79,391
			Total ...	116,203	279,445	220,335	67,705	6,619	144	.....	18	13	422	.....	.....	.....	.....	.....	690,904
21	Shikarpur...	{	Rayatwari ...	296,049	17,764	256,987	327,244	2,307	.....	.....	42	995	45	.....	.....	.....	.....	6,166	907,451
			Other Government...	1,878	74	.....	6,450	53	.....	.....	.....	.....	1	.....	.....	.....	.....	297	10,781
			Alienated ...	23,083	529	5,688	27,073	69	.....	.....	.....	.....	82	.....	.....	.....	.....	151	56,645
			Total ...	321,008	18,367	262,555	362,767	2,459	2	.....	42	1,047	46	.....	.....	.....	.....	6,614	974,907
22	Upper Sind Fron- tier.	{	Rayatwari ...	147,087	38,703	23,550	61,042	443	21	.....	2	189	.....	.....	.....	.....	.....	3,168	261,124
			Other Government...	12,337	43	192	353	10	.....	.....	.....	.....	37	.....	.....	.....	.....	.....	12,972
			Alienated ...	8,244	1,701	166	24	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,244
			Total ...	162,668	37,535	23,898	51,419	453	21	2	176	3,168	279,340
23	Thar and Parkar...	{	Rayatwari ...	3,467	52,551	161,840	21,514	340	2	.....	.....	.....	102	.....	.....	.....	.....	.....	240,176
			Other Government...	8,160	391,303	41	2,252	119	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4,1873
			Alienated ...	28	815	1,747	.....	.....	.....	.....	.....	.....	.....	4	.....	.....	.....	.....	2,596
			Total ...	11,655	444,969	163,628	23,765	459	2	166
Total, B.	{	Rayatwari ...	656,427	380,696	878,859	525,707	16,640	621	.....	669	1,153	737	.....	.....	.....	9,344	2,491,751		
		Other Government...	46,174	392,083	16,845	11,753	46	.....	.....	.....	37	1	.....	.....	.....	297	4,929		
		Alienated ...	38,703	33,368	43,539	31,337	2,500	70	.....	.....	63	28	.....	.....	.....	151	162,210		
		Total ...	741,243	606,534	898,663	573,797	19,686	691	.....	671	1,243	766	.....	.....	.....	9,782	3,652,226		
GRAND TOTAL	{	Rayatwari ...	7,623,456	4,631,073	2,316,317	1,733,262	51,823	129,702	1,186,045	475,215	175,381	250,941	23,019	12,627	1,565	20,676	17,657,132		
		Other Government...	186,940	510,644	123,753	117,882	6,473	10,672	61,000	53,120	1,009	35,832	25,738	925	45	1,611	1,145,014		
		Alienated ...	836,534	439,573	111,682	125,900	3,867	20,522	3,343	35,578	24,217	24,381	1,829	804	280	1,513	1,650,123		
		Total ...	8,646,930	5,583,300	2,551,752	1,982,044	62,163	169,895	250,388	563,943	200,607	311,154	50,586	14,356	1,890	23,290	20,412,299		

LIII

III.—Crops, 1897-98—continued.

District.	II.—PULSES.														III.—ORCHARD AND GARDEN PRODUCE.					IV.—DRUGS AND NARCOTICS.								
	Tur (Pigeon Pea, <i>Cajanus indicus</i> .)	Gram (Chana), <i>Cicer-arietinum</i> .	Mung (Green Gram), <i>Phaseolus mungo</i> .	Udid (Black Gram), <i>Phaseolus radiatus</i> .	Math (Kidney Bean), <i>Phaseolus acutifolius</i> .	Val (large-fruited Dolichos), <i>Dolichos lablab</i> .	Chavil (small-fruited Dolichos), <i>Dolichos catuag</i> .	Kulthi (Horse Gram), <i>Dolichos uniflorus</i> .	Field Pea (Vatane), <i>Pisum sativum</i> .	Lentil (Masur), <i>Ervum lens</i> .	Chickling Vetch (Lakh Lang), <i>Lathyrus sativus</i> .	Field Vetch (Guvār), <i>Cyamopsis psoralides</i> .	Others.	Total, II.	A.—Vegetables (Roots and Tubers).	B.—Green Vegetables.	C.—Green Fodder.	D.—Fruit Trees.	Total III.	Tobacco (Tumbakhu), <i>Nicotiana glabrum</i> .	Ekking, Gōnja, (Indian Hemp), <i>Cannabis sativa</i> .	Opium (Afū), <i>Papaver somniferum</i> .	Coffee (Kafī, Bund), <i>Coffea Arabica</i> .	Tea (Chālu), <i>Thea sinensis</i> .	Cinchona, <i>Cinchona officinalis</i> .	Others.	Total, IV.	
1	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	
A.—BOMBAY PRESIDENCY PROPER.																												
I.—Gujarāt.																												
Ahmedabad...	{ Rayatwari ... 4,973	11,234	12,069	4,725	29,591	64	948	210	...	...	...	5,477	...	69,208	749	1,809	1,151	1,165	4,934	2,026	...	...	...	...	...	...	2,826
	{ Other Government... 1,198	11,442	10,462	8,304	17,695	95	519	4,981	...	...	...	2,621	...	53,615	75	209	2,265	66	2,695	561	...	...	...	...	...	...	661
	{ Alienated ... 2	13	30	6	74	...	...	...	...	...	...	2	...	128	1	19	...	1	21	1	...	...	...	...	...	...	1
	Total ... 6,176	22,689	22,561	8,034	47,570	159	1,467	5,191	...	...	...	8,100	...	121,947	825	2,187	3,416	1,222	7,650	3,188	...	...	...	...	...	...	3,188
Kaira ...	{ Rayatwari ... 16,220	10,388	3,578	1,254	17,013	1,601	4,216	...	...	...	...	7,617	...	61,887	438	850	2,109	244	3,641	7,801	...	...	...	...	...	...	7,601
	{ Other Government... 7,307	1,340	433	178	4,200	575	472	...	...	...	...	3,359	...	17,862	193	377	1,309	144	2,023	9,474	...	...	...	...	...	...	9,474
	{ Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ... 23,527	11,723	4,011	1,430	21,213	2,176	4,688	...	...	...	...	10,976	...	79,749	631	1,227	3,418	388	5,664	17,275	...	...	...	...	...	...	17,275
Panch Mahāls	{ Rayatwari ... 4,663	46,668	2,076	3,788	1,959	30	244	17	501	1	...	739	...	69,695	165	148	184	26	533	355	...	...	...	...	...	...	355
	{ Other Government... 1,709	717	1,883	1,158	20	807	...	...	611	...	...	202	...	9,077	321	19	25	2	367	314	...	...	...	...	...	...	314
	{ Alienated ... 729	4,425	591	591	676	4	116	9	89	...	...	119	...	7,099	61	9	5	...	65	61	...	...	...	...	...	...	61
	Total ... 7,101	53,564	3,184	6,261	3,793	54	667	26	1,151	1	...	1,059	...	76,861	537	176	214	28	955	730	...	...	...	...	...	...	730
Broach ...	{ Rayatwari ... 13,474	2,273	518	6	2,735	1,017	356	...	37	...	39,858	1,208	...	61,867	195	1,559	2,169	671	4,585	3,290	...	...	...	...	...	...	3,290
	{ Other Government... 15	...	...	...	...	...	...	...	...	...	75	...	...	90	...	...	...	...	...	...	...	...	...	...	...	...	...
	{ Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ... 13,489	2,273	518	5	2,785	1,017	356	...	373	...	39,933	1,208	...	61,957	195	1,550	2,169	671	4,585	3,290	...	...	...	...	...	...	3,290
Surat...	{ Rayatwari ... 25,689	1,364	4,502	3,551	202	46,446	1,221	...	2,771	36	3,007	1,752	...	90,600	326	1,752	9	645	2,732	644	2	...	...	...	...	...	646
	{ Other Government... 102	7	31	2	...	278	4	...	6	...	19	9	...	518	...	3	...	11	14	2	...	...	...	...	...	...	2
	{ Alienated ... 62	2	8	12	...	32	8	...	3	...	15	5	...	142	2	8	...	3	13	4	...	...	...	...	...	...	4
	Total ... 25,913	1,373	4,541	3,565	262	46,755	1,228	...	2,780	36	3,041	1,766	...	91,260	328	1,763	9	659	2,759	650	2	...	...	...	...	...	652
II.—Deccan.																												
Bhāndesh ...	{ Rayatwari ... 62,670	33,166	26,157	92,205	21,324	800	2,066	79,685	1,721	292	...	...	...	319,814	5,216	5,442	1,331	2,198	14,187	4,825	5	...	...	...	...	...	4,830
	{ Other Government... 3,474	3,248	34	812	...	...	...	310	19	15	...	...	...	7,912	14	8	...	1	20	10	...	...	...	...	...	...	16
	{ Alienated ... 2,293	700	225	2,130	262	...	31	516	17	6	...	...	...	6,265	211	91	2	318	622	208	...	...	...	...	...	...	203
	Total ... 68,432	37,204	26,416	95,247	21,586	360	2,097	80,521	1,763	313	50	...	...	333,989	5,441	5,538	1,333	2,517	14,829	5,049	5	...	...	...	...	...	5,054
Āsik ...	{ Rayatwari ... 28,131	52,854	10,694	23,941	14,833	13	119	81,751	2,185	6,832	4,134	...	...	225,607	5,110	2,714	2,941	1,991	12,756	1,062	18	...	...	...	...	...	1,080
	{ Other Government... 9,011	5,553	175	1,476	203	1	1	3,474	115	725	594	...	...	15,828	779	270	124	182	1,305	53	...	...	...	...	...	...	53
	{ Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ... 31,142	58,407	10,869	25,417	15,036	134	120	85,225	2,300	7,557	4,728	...	...	240,935	5,889	2,984	3,065	2,123	14,061	1,115	18	...	...	...	...	...	1,133
Amādnagar ...	{ Rayatwari ... 43,442	66,383	25,571	3,343	47,282	690	588	47,162	776	557	62	...	...	235,846	5,145	1,250	5,488	1,574	13,457	2,241	93	...	...	...	...	...	2,334
	{ Other Government... 4,668	9,313	1,078	2	8,027	83	22	5,175	1	...	...	...	...	23,389	419	120	485	170	1,194	327	4	...	...	...	...	...	331
	{ Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Total ... 43,130	75,696	26,649	3,345	50,309	773	610	52,337	777	557	62	...	...	259,235	5,564	1,370	5,973	1,744	14,651	2,563	97	...	...	...	...	...	2,665

9	Poona	{ Rayatwari ...	20,624	50,577	5,281	6,283	23,154	2,690	478	29,070	1,221	907	...	...	...	140,874	10,291	1,834	1,798	3,599	17,512	617	2	...	...	...	620	
		{ Other Government
		{ Alienated ...	4,979	13,488	1,039	2,205	3,485	523	122	7,404	362	102	...	...	...	...	33,717	2,830	446	826	792	4,196	81	3	...	...	...	84
	Total	25,602	64,065	6,319	8,468	26,649	3,222	600	37,074	1,583	1,009	...	...	...	174,591	12,911	2,282	2,124	4,391	21,708	698	5	...	...	...	704		
10	Sholapur	{ Rayatwari ...	80,744	42,317	8,288	1,929	26,133	683	82	9,821	56	126	197	...	...	...	170,378	4,890	1,636	2,337	1,184	9,547	1,832	19	...	...	...	1,851
		{ Other Government
		{ Alienated ...	2,045	3,403	406	130	1,371	34	...	...	...	...	...	...	...	...	8,680	379	152	190	83	811	79	...	...	...	...	79
	Total	83,389	45,780	8,784	2,059	27,504	717	82	10,339	61	135	208	...	...	...	179,058	4,769	1,789	2,533	1,267	10,358	1,911	19	...	...	...	1,930	
11	Satara	{ Rayatwari ...	51,018	53,784	12,435	34,923	42,454	3,204	593	52,922	867	401	...	...	...	251,801	9,806	1,186	2,002	1,119	14,113	7,637	280	...	...	...	7,933	
		{ Other Government
		{ Alienated ...	7,987	8,170	2,782	5,936	3,866	626	35	7,684	331	113	...	...	...	...	87,710	1,590	201	269	192	2,260	620	1	...	...	...	621
	Total	58,975	60,954	15,217	40,859	46,320	3,830	631	60,806	1,201	604	...	...	...	114	239,511	11,396	1,395	2,271	1,311	16,373	8,257	281	...	...	...	8,554	
III.—Karnatak.																													
12	Belgaum	{ Rayatwari ...	63,235	37,015	19,042	11,033	7,978	8,068	1,704	48,597	4,858	4,389	...	...	...	198,916	3,969	2,550	637	3,041	9,202	20,453	...	...	...	...	...	20,463
		{ Other Government
		{ Alienated ...	15,871	8,531	3,906	1,205	2,398	890	695	11,360	216	829	45,398	1,888	407	280	437	2,812	4,030	4,030
	Total	79,106	45,546	15,948	12,238	10,371	8,958	2,399	59,957	5,073	4,718	...	...	...	...	244,314	5,657	2,962	917	2,478	12,014	24,483	...	...	...	...	...	24,493
13	Bijapur	{ Rayatwari ...	70,378	48,253	17,390	...	7,786	3,990	2,428	19,864	35	1	...	...	...	168,119	2,016	1,600	815	1,734	6,427	1,485	...	...	...	...	...	1,485
		{ Other Government
		{ Alienated ...	8,691	3,773	1,959	...	334	402	257	2,222	5	17,182	220	227	164	239	850	95	95
	Total	78,464	50,024	19,349	...	8,170	4,482	2,685	22,086	40	1	...	...	...	...	185,301	2,236	2,089	979	1,973	7,277	1,590	...	...	...	...	...	1,590
14	Dharwar	{ Rayatwari ...	65,403	56,318	53,608	8,810	13,608	7,423	1,064	58,224	872	54	...	...	...	264,831	1,824	3,953	161	3,305	9,243	779	...	...	...	...	...	782
		{ Other Government
		{ Alienated ...	3,806	1,690	3,213	281	603	737	60	3,370	55	6	13,821	65	369	1	399	834	10	16
	Total	69,208	58,008	56,821	9,091	14,209	8,160	1,124	61,594	427	60	...	...	...	...	278,702	1,889	4,322	162	3,704	10,077	795	...	...	...	...	...	798
IV.—Konkan.																													
15	Thana	{ Rayatwari ...	4,850	1,697	330	15,678	...	2,178	3,628	704	96	...	71	...	...	29,231	1,056	867	169	4,051	6,143	3	...	...	...	...	...	3
		{ Other Government
		{ Alienated ...	68	6	...	67	...	4	16	8	159	31	82	...	300	144	303
	Total	4,918	1,703	330	15,735	...	2,182	3,644	712	95	...	71	...	...	...	29,390	1,087	907	169	4,487	6,650	3	...	...	...	...	...	3
16	Kolaba	{ Rayatwari ...	780	1,508	787	2,961	...	5,361	35	30	...	...	...	...	...	11,471	40	310	2	2,285	2,656	...	...	...	...	...	...	...
		{ Other Government ...	1,800	399	1,278	5,058	...	2,780	79	7	...	...	...	...	...	...	11,454	2	47	...	20	69	...	...	...	...	...	...
		{ Alienated ...	...	...	...	13	...	46	...	...	...	...	...	...	...	...	59	...	...	...	1	9	...	...	...	...	...	...
	Total	2,649	1,897	2,065	8,032	...	8,190	114	37	...	...	...	...	...	...	22,984	42	374	2	2,316	2,734	...	...	...	...	...	...	...
17	Ratnagiri	{ Rayatwari ...	289	16	163	2,161	...	1,438	108	7,796	...	...	...	...	...	411	12,352	47	90	...	5,976	6,122	...	...	...	...	...	3
		{ Other Government ...	4	...	2	23	...	2	4	207	...	...	...	...	...	10	279	...	1	...	87	39	...	...	...	...	...	...
		{ Alienated ...	6	...	4	39	...	...	...	810	...	...	...	...	...	...	363	...	...	...	170	171	...	...	...	...	...	...
	Total	269	16	169	2,223	...	1,467	116	8,313	...	...	...	...	...	421	12,994	44	100	...	6,183	6,331	...	...	...	...	...	...	3
18	Kanara	{ Rayatwari ...	186	291	1,098	1,671	...	441	944	2,128	304	1	...	...	...	7,064	282	674	52	18,067	19,075	...	...	...	...	...	...	15
		{ Other Government
		{ Alienated
	Total	186	291	1,098	1,671	...	441	944	2,128	304	1	...	...	...	7,064	282	674	52	18,067	19,075	...	...	...	...	...	...	...	15
Total, A.		{ Rayatwari ...	259,747	131,103	196,567	218,341	...	256,667	65,825	20,822	439,591	16,143	13,689	47,369	16,782	521	2,300,599	51,051	30,594	23,375	51,851	156,875	55,690	419	...	...	...	69,127
		{ Other Government ...	15,727	14,897	13,917	11,257	...	23,883	3,789	1,365	5,295	99,997	695	779	2,399	497	6,379	10,297	10,297
		{ Alienated ...	64,231	29,216	15,285	14,082	...	16,357	3,472	1,368	42,220	1,140	1,288	620	126	10	299,438	8,097	2,370	1,572	3,297	18,546	6,475	6,475
	Total	626,676	501,218	224,849	243,680	...	295,777	93,077	23,572	486,346	17,928	14,992	48,053	23,109	535	2,689,542	59,727	33,669	28,806	55,529	177,751	71,662	427	...	...	...	...	72,077

III.—Crops, 1897-98—continued.

No.	District.	II.—PULSES.													III.—ORCHARD AND GARDEN PRODUCE.					IV.—DRUGS AND NARCOTICS.								
		Tur (Pigeon Pea), Cajanus indicus.	Gram (Chana), Cicer- arietinum.	Mung (Green Gram), Phaseolus mungo.	Urad (Black Gram), Phaseolus radiatus.	Math (Kidney Bean), Phaseolus acutif- folius.	Vat (Large fruited Dolichos), Dolichos lablab.	Chavil (small-fruited Dolichos), Dolichos catang.	Kulth (Horse Gram), Dolichos uniflorus.	Field Pea (Vadno), Pisum sativum.	Lentil (Masur), Ervum lens.	Chickling Vetch (Lakh Lang), Lathyrus sativus.	Field Vetch (Guvay), Cynopis psoral- odes.	Others.	Total, II.	A.—Vegetables (Roots and Tubers).	B.—Green Vegetables.	C.—Green Fodder.	D.—Fruit Trees.	Total, III.	Tobacco (Tambakul), Nicotiana glauca.	Bhang, Gajja, (Indian Hemp), Cannabis sativa.	Opium (Afim) Papaver somniferum.	Coffee (Kaffi, Bunn), Coffea Arabica.	Tea (Chai), Thea sinensis.	Ginseng, Gluchona officinalis.	Others.	Total, IV.
1	2	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
	B.—SIND.														Acres.					Acres.								Acres.
19	Karachi	Rayatwari ... Other Government... Alienated ...	4,269 4 85	12,827 1,428 25	1,823 152 40	1,869 687 60	...	32	...	...	...	9,773 260 82	5	...	30,598 2,429 292	1,870 75 15	2,955 5,202 82	333 23 ...	2,357 89 4	7,415 5,389 101	369 61	79	...	...	...	...	1	418 61
		Total ...	4,358	14,278	2,015	2,516	...	32	...	...	...	10,115	5	...	33,319	1,900	8,239	356	2,350	12,905	420	79	...	...	...	1	500	
20	Hyderabad	Rayatwari ... Other Government... Alienated ...	3,883 ...	1,368 110	30 ...	23 30	...	454	...	9	...	13,962 4,302	232 2	...	19,011 5,802	1,940 303	4,845 343	103 153	4,859 473	11,247 1,272	4,733 870	...	...	...	...	...	...	4,733 870
		Total ...	4,690	1,478	30	53	...	454	...	10	...	18,264	234	...	25,213	2,243	5,188	256	4,832	12,519	5,603	...	...	...	...	...	5,603	
21	Shikarpur	Rayatwari ... Other Government... Alienated ...	28,969 1,008 1,322	491 14 11	337 161 41	82 ...	...	84	...	1	...	81,549 5,378 1,733	...	1	119,614 6,554 3,131	2,490 4 89	6,410 159 168	1,205 12 7	4,675 ...	14,780 175 378	2,833 72	203 24	...	...	...	10	3,046 96	
		Total ...	29,293	516	539	105	...	80	...	1	...	98,658	...	1	129,199	2,583	6,737	1,224	4,789	15,333	2,905	229	...	...	...	10	3,144	
22	Upper Sind Frontier.	Rayatwari ... Other Government... Alienated ...	26,947 ...	376 3	207 ...	406 ...	...	32	...	1	...	13,326 173	...	47	46,342 833	224 2	968 36	...	93	1,302 33	46 ...	...	...	...	...	...	...	46
		Total ...	27,654	379	207	406	...	32	...	1	...	18,409	...	47	47,225	226	1,925	...	93	2,244	46	...	...	...	...	...	46	
23	Thar and Parkar.	Rayatwari ... Other Government... Alienated ...	1 ...	6,689 1,140	...	...	...	851 144	...	...	...	4 ...	96 1,798	...	7,641 23,198 15	299 25	489 4	647	456 2	1,900 31	477 11	...	...	...	...	...	...	477 11 45
		Total ...	1	7,829	...	...	...	995	...	...	...	4	20,225	1,798	30,852	324	502	647	473	1,946	533	...	...	...	...	...	533	
	Total, B.	Rayatwari ... Other Government... Alienated ...	1 ...	62,017 1,007 2,971	21,751 2,680 149	2,397 313 81	2,381 697 112	...	1,453 144 2	...	11 ...	...	133,014 5,636 6,290	333 20,114 17	49 1,798	224,008 32,179 9,623	6,823 106 407	15,803 5,401 1,497	2,288 85 160	11,840 81 606	36,844 5,833 2,670	8,458 11 1,038	282 2	...	...	...	11	8,751 73 1,082
		Total ...	1	65,995	24,480	2,791	3,080	...	1,599	...	12	...	145,540	20,464	1,846	265,808	7,336	22,591	2,433	12,537	44,947	9,507	308	...	...	...	11	9,826
	GRAND TOTAL.	Rayatwari ... Other Govt. ... Alienated ...	556,748 15,727 54,202	575,122 19,904 62,187	218,338 15,537 14,163	220,739 23,940 16,469	85,825 3,780 3,472	22,275 1,529 1,367	438,591 5,505 42,250	16,154 636 1,150	13,689 15 1,238	180,983 5,730 6,910	17,125 26,305 143	569 1,808 4	2,604,605 131,986 219,059	57,878 711 8,474	46,253 6,160 3,867	25,643 3,634 2,012	63,725 498 3,843	193,499 11,003 18,196	64,118 10,378 6,613	701 2 32	...	43	...	...	11	64,878 10,380 6,645
		Total ...	626,677	657,213	249,329	246,471	298,857	93,077	25,171	436,346	17,940	14,992	193,623	43,573	2,381	2,955,650	67,063	56,280	31,289	68,066	222,698	81,109	735	...	43	...	11	81,903

III.—Crops, 1897-98—continued.

No.	District.	V.—CONDIMENTS AND SPICES.																VI.—STARCHES.			VII.—SUGARS.			
		Cardamom (Vaidole), Elettaria cardamomum.	Chillies (Mirchya), Capsicum frutescens.	Ginger (Ale), Zingibet officinale.	Black Pepper (Mir), Piper nigrum.	Retel-leaves (Panc), Piper betel.	Betelnut (Supari), Areca catechu.	Turmeric (Holah), Curcuma longa.	Fennel (Badshah), Fenugreek (Methi), Trigonella foenum-gracum.	Dill-seed (Bhant-shap), Anethum sowa.	Coriander (Dhano), Coriandrum sativum.	Cumin (Jiri), Cuminum cyminum.	Alkanet (Ove), Ptychotis alovana.	Fenugreek (Methi), Trigonella foenum-gracum.	Common Mustard (Mauri), Sinapis indica.	Garlic (Lasan), Allium sativum.	Others.	Total, V.	Arrowroot, Mananta arundinacea, Curcuma angustifolia, &c.	Others.	Total VI.	Sugarcane (Us), Saccharum officinarum.	Others.	Total VII.
1	2	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66
A.—BOMBAY PRESIDENCY PROPER.																								
I.—Gujarat.																								
1	Ahmedabad		2,219 185	217				4	34			26		647 8	7	29 84	2	3,179 247				1,109 103		1,108 199
			2,398	217				4	34			26		655	7	83	2	3,426				1,307		1,307
2	Kaira		1,060 395	136 33				2 4	362 12	4		667 905	1	149 17	22	101 74	146 50	2,643 1,390	32		33	404 427		404 427
			1,455	174				6	374	4		1,472	1	165	22	175	196	4,014	32		32	831		831
3	Panch Mahals		498 311 69	10						6		33		53 25		19 66		609 304 69				217 30 14		217 36 14
			768	10						6	13	33		78		74		982				267		267
4	Dwarka		229	8				11		3	6	5			2	41	4	311				126		126
			229	8				11		3	6	5			2	41	4	311				126		126
5	Surat		701 44 31	98				65		1	7		3	121	57	104	29	1,203 44 81				4,818 82 8		4,818 82 8
			776	93				65		1	7		3	121	57	104	29	1,278				4,908		4,908
II.—Deccan.																								
6	Khandesh		12,311 53 177	4		211		76 7	556 7	2,010 29 109	4,620		469 33	92	14	132 21		21,825 99 413				2,277 1 131		2,277 1 131
			12,541	4		226		83	593	3,158	4,670		502	92	14	153		22,036				2,409		2,409
7	Nasik		4,653 421	3		113	1	23		25	65		27 2	1,167 251	233 111	40 20		6,752 653		40 40		6,653 600		6,653 600
			5,107	3		150	1	23		27	67		29	1,421	347	405		7,640		40 40		6,319		6,319
8	Ahmadnagar		6,744 67			21	1			3	13		3		41	135		5,194 42				1,677 22		1,677 22
			5,225			203	1			3	13		3		41	144		5,676				1,150		1,150

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III.—Crops, 1897-98—continued.

No.	District.	V.—CONDIMENTS AND SPICES.																	VI.—STARCHES.			VII.—SUGARS.																					
		Cardamom (Veldode.) Elettaria cardamomum.	Chillies (Mitcheva) Capsicum frutescens	Ginger (Ale), Zingiber, officinale.	Black Pepper (Mirri), Piper nigrum.	Betel-leaves (Pano) Piper-betel.	Betel-nut (Sop4r), Areca-catechu.	Turmeric (Halaad) Curcuma longa.	Fennel (Badi-shep), Pimpinella anisum.	Dill-seed (shep), Anethum sowa.	Coriander (Dbano), Coriandrum sativum.	Cumina (Jiri), Cuminum cuminum.	Alvaseed (Ora), Psychotria ajowan.	Fenugreek (Methi), Trigonella fenum-graecum.	Common Mustard (Mokari), Sinapis Indica.	Garlic (Dasum), Allium sativum.	Others.	Total, V.	Arrowroot, Maranta arundinacea, Curcuma angustifolia, &c.	Others.	Total, VI.	Sugarcane (Us, Serti), Saccharum officinarum.	Others.	Total, VII.																			
1	2	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66																			
A.—BOMBAY PRESIDENCY PROPER																						—continued.																					
II.—Deccan—continued.																																											
9	Poona ...	{ Rayatwari ...	5,829	5	...	305	3	28	9	4	303	...	3	67	15	304	2	6,936	...	...	...	6,637	...	5,687																
		{ Other Government ...	1,561	1	...	201	1	...	...	...	33	...	...	7	...	109	...	1,902	...	...	...	1,114	...	1,114											
		{ Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total ...	7,990	6	...	596	4	28	9	4	324	...	3	74	15	473	2	8,928	...	...	...	6,751	...	6,751																
10	Sholapur...	{ Rayatwari ...	7,016	...	...	209	...	681	...	...	47	...	...	...	...	107	...	9,019	...	...	...	1,135	...	1,135								
		{ Other Government ...	476	...	...	2	1	2	...	...	5	...	...	...	...	3	...	488	...	...	...	49	...	49								
		{ Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total ...	7,490	...	...	271	1	583	...	...	52	...	...	...	...	110	...	8,507	...	...	...	1,184	...	1,184								
11	Satara ...	{ Rayatwari ...	8,647	53	...	324	2	2,900	173	3	1,108	...	23	13	...	488	...	13,766	...	...	...	9,710	...	9,710																
		{ Other Government ...	1,714	28	...	39	...	579	28	...	345	...	9	...	...	71	...	2,713	...	...	...	1,887	...	1,887														
		{ Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total ...	10,861	81	...	363	2	3,539	201	2	1,947	...	31	13	...	559	...	16,499	...	...	...	11,597	...	11,597																
III.—Karnatak.																																											
12	Belgaum ...	{ Rayatwari ...	12,648	...	...	99	7	145	101	4	443	...	1	131	157	1,478	...	15,214	...	...	...	6,800	...	6,800														
		{ Other Government ...	3,041	...	...	99	1	55	29	...	215	...	...	13	2	337	...	3,792	...	...	...	2,204	...	2,204												
		{ Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total ...	15,689	...	...	198	8	200	130	4	658	...	1	144	159	1,815	...	19,006	...	...	...	9,004	...	9,004														
13	Bijapur ...	{ Rayatwari ...	3,166	...	...	50	...	8	1	3	10	...	...	5	...	147	...	3,390	...	...	...	459	...	459												
		{ Other Government ...	330	...	...	...	...	...	...	...	5	...	...	1	...	13	...	350	...	...	...	30	...	30							
		{ Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total ...	3,496	...	...	50	...	8	1	3	15	...	...	6	1	160	...	3,740	...	...	...	489	...	489												
14	Dharwar...	{ Rayatwari ...	42,147	3	...	1,304	507	25	3	4	537	...	37	93	67	1,081	...	45,808	...	...	...	2,836	...	2,836																
		{ Other Government ...	1,745	...	...	101	36	...	...	...	1	...	...	...	...	...	...	1,893	...	...	...	324	...	324					
		{ Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Total ...	43,892	3	...	1,405	543	25	3	4	538	...	37	93	67	1,081	...	47,691	...	...	...	3,160	...	3,160																
IV.—Konkan.																																											
15	Thana ...	{ Rayatwari ...	378	195	...	211	8	49	...	...	236	...	...	...	2	3	...	1,082	...	...	...	1,163	...	1,163											
		{ Other Government																			
		{ Alienated ...	3	4	7																			
		Total ...	381	195	...	211	8	49	240	2	3	...	1,089	1,163	...	1,163																			

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16	Kolaba ...	{	Rayatwari ...	55			20					239						314			32		32		
		{	Other Government...	95															95			3		3	
		{	Alienated ...																						
		Total ...	150			20						239						409			35		35		
17	Ratnagiri ...	{	Rayatwari ...	538	1	1	3	694	10									1,245	5		5	197	197		
		{	Other Government...	18				187											205			9	8	8	
		{	Alienated ...	24				2											26			17	17	17	
		Total ...	580	1	1	1	883	10										1,476	5		5	217	217		
18	Kannara ...	{	Rayatwari ...	964	326	2	1,809	182	11,890	52			5					2	7	278	15,547		3,104	3,104	
		{	Other Government...																						
		{	Alienated ...																						
		Total ...	964	356	2	1,809	182	11,890	52			5						2	7	278	15,547		3,104	3,104	
Total, A		{	Rayatwari ...	964	107,207	732	1,810	3,340	13,113	4,059	1,269	3,069	7,033	731	565	2,537	625	4,678	461	162,701	87	40	77	46,783	46,783
		{	Other Government...		1,001	38			187	4	19	39	13	805	1	50		183	50	2,890				750	750
		{	Alienated ...		10,955	29		596	41	643	57	111	549		44	275	114	589		13,103				6,527	6,527
		Total ...	964	118,263	799	1,810	3,936	13,341	4,706	1,345	3,219	8,194	1,536	610	2,862	739	5,450	511	168,285	37	40	77	54,060	54,060	
B.—SIND.																									
19	Karachi ...	{	Rayatwari ...	61						31	3	169			127		1		5,877	35	1	6,246	9	1,316	1,316
		{	Other Government...	4												9				2,575			7	7	7
		{	Alienated ...													1				128			10	10	10
		Total ...	65							31	3	118			128	1			8,580	35	1	8,962	9	1,369	1,369
20	Hyderabad ...	{	Rayatwari ...	148						3	4	50							1,044	79		1,326	32	684	684
		{	Other Government...																						
		{	Alienated ...	43																		7		61	133	133
		Total ...	188							3	6	50							1,044	86		1,377	32	817	817
21	Shikarpur ...	{	Rayatwari ...	67						7	4	3,963			4		150	4	57	9	4,284	49	560	560	
		{	Other Government...																						
		{	Alienated ...	4																		4	14	16	10	10
		Total ...	71							11	7	4,030			4		150	4	61	23	4,361	49	570	570	
22	Upper Sind Frontier.	{	Rayatwari ...								3								128	6	10	1,016		17	17
		{	Other Government...																						
		{	Alienated ...																						
		Total ...								3		869							123	6	10	1,016		17	17
23	Thar and Parkar ...	{	Rayatwari ...	93							5	218							5	11		322	13	59	59
		{	Other Government...																						
		{	Alienated ...	3																			3		
		Total ...	99							5	218							5	11		339	12	59	59	
Total, B		{	Rayatwari ...	367						44	16	5,328	131	1	150	7,059	183	20	13,903		101	101	2,666	2,666	
		{	Other Government...	7												2,575		14	2,677				7	7	
		{	Alienated ...	49							4	5	47	1		128	11	244				19	19	19	
		Total ...	423						48	21	5,235	132	1	150	9,761	199	34	16,654		101	101	2,832	2,832		
GRAND TOTAL		{	Rayatwari ...	964	107,574	732	1,810	3,340	13,113	4,059	1,313	3,085	12,860	862	566	2,697	7,693	4,966	431	165,925	37	141	178	49,449	49,449
		{	Other Government...		1,008	38			187	4	19	39	23	806	1	50	2,575	183	64	4,997				757	757
		{	Alienated ...		10,104	29		596	41	643	61	116	596		44	275	242	600		13,347				6,656	6,656
		Total ...	964	118,686	799	1,810	3,936	13,341	4,706	1,333	3,240	13,479	1,668	611	3,012	10,500	5,649	545	184,309	37	141	178	56,862	56,862	

III.—Crops, 1897-98—continued.

No.	District.	VIII.—OIL SEEDS.										IX.—DYES.					X.—FIBRES.							XI.—MISCELLANEOUS.	Gross Area cropped.	Deduct Area cropped more than once.	Remainder Net Area cropped.
		Sesame (Til), Sesamum Indicum.	Linseed (Alsi, Jarvis), Linum usitatissimum	Castor-oil seed (Erandiyas), Ricinus communis.	Mustard seed (Kardhi), Carthamus tinctorius.	Rapeseed (Shiras), Brassica napus.	Nigerseed (Khursani), Guizotia Abyssinica.	Ground-nt (Bhainmag), Arachis hypogea.	Cocunut (Kholare), Cocos nucifera.	Others.	Total, VIII.	Indigo (Nil, Gull), Indigofera tinctoria.	Safflower (Karamba), Carthamus Fersicus.	Morinda (A.T. Surang), Morinda citrifolia.	Others.	Total, IX.	Cotton (Kapus), Gossypium herbaceum.	Bombay Hemp (San, Tag), Crotalaria juncea.	Hemp (Ambadi, Sheria), Hibiscus cannabinus.	Jute (Corchorus).	Rhes.	Others.	Total, X.				
1	2	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92
		Acres.										Acres.					Acres.							Acres.	Acres.	Acres.	Acres.
A.—BOMBAY PRESIDENCY PROPER.																											
I.—Gujarat.																											
1	A h m e d abad.	19,754 6,496 1	693 1,033	5,778 2,378 22	22 33	853 66	27,289 10,005 23	59	74 7	...	132 7	88,627 149,753 21	1,311 1,238 15	295 132	90,233 151,123 36	1,480	639,901 535,085 1,688	21,523 3,527 85	618,378 531,258 1,481
	Total ...	26,250	1,926	8,178	55	918	...	...	...	...	37,327	58	81	...	139	238,401	2,564	427	...	...	...	241,392	1,480	1,176,552	25,435	1,151,117
2	Kaira ...	5,356 1,445	332	3,972 792	795 200	82	1	...	...	...	10,538 3,437	55 91	769 202	...	823 293	3,580 3,042	79 1	2,830 987	...	...	...	6,469 4,030	38 12	516,804 152,508	23,715 6,025	493,089 146,483
	Total ...	6,801	332	4,764	995	82	1	...	...	...	12,975	146	970	...	1,116	6,602	80	3,817	...	...	...	10,499	50	669,312	29,740	639,572
3	PanchMa-hals.	19,689 2,036 1,073	132	2,063 684 258	...	763 83 29	...	...	...	10,171 1,118 619	31,637 3,626 1,979	...	...	...	...	639 352 16	3,809 626 207	230 131 103	...	...	...	4,678 1,109 328	...	307,032 73,791 42,691	55,421 5,788 5,206	251,611 69,003 37,465
	Total ...	22,798	132	2,925	...	879	...	...	10,908	...	37,642	...	...	...	...	1,007	4,642	464	...	...	...	6,113	...	423,514	66,415	357,099
4	Broach ...	12,504 50	...	1,581 1	...	1	...	...	...	...	14,086 51	737	1	...	738	233,087 543	29	12	...	...	...	233,128 543	65	567,462 899	1,153	566,329 899
	Total ...	12,554	...	1,582	...	1	...	...	...	...	14,137	737	1	...	738	233,630	29	12	...	...	...	233,671	65	568,381	1,153	567,228
5	Surat ...	3,187 40 70	...	25,990 313 78	...	...	118	104 11 8	1	...	29,400 364 156	...	...	...	...	69,755 1,416 19	1,936 ...	30	...	...	...	70,721 1,416 22	97	527,091 5,855 3,737	51,938 299 15	472,153 5,656 3,723
	Total ...	3,307	...	26,371	...	...	118	123	1	...	29,920	...	...	...	...	70,190	1,939	30	...	...	...	72,159	97	536,783	55,252	481,531
II.—Deccan.																											
6	Khândesh ...	83,791 5,085 2,442	30,905 1,142 430	7,580 649 140	1,227 ...	...	4,736 1,635 126	7,642 6 82	...	...	135,791 8,528 3,206	675	2 90	...	707	824,748 3,155 18,947	1,649 46 166	6,270 68 119	...	...	...	832,869 2,684 19,241	50 3	2,920,931 54,768 69,476	40,765 ...	2,860,166 54,768 69,123
	Total ...	91,328	32,477	8,378	1,232	...	6,497	7,612	...	...	147,524	675	2	30	707	845,860	2,275	6,457	...	...	...	854,593	53	3,045,175	41,118	3,004,057
7	Násik ...	27,742 ...	26,204 ...	1,469 ...	7,763 ...	...	84,029 ...	16,115 ...	...	...	162,322 ...	...	...	...	...	8,551 ...	3,354 ...	2,672 ...	...	...	...	14,577 ...	13	1,761,930 ...	37,530 ...	1,724,450 ...
	Total ...	28,418	27,427	1,467	8,470	...	89,004	16,100	...	...	170,906	...	...	...	...	8,867	3,613	2,711	...	...	...	15,191	13	1,870,158	40,158	1,830,000
8	Ah m a d -nagar.	15,256 ...	16,929 ...	508 ...	118,417 ...	...	16,529 ...	2,837 ...	1	...	169,476 ...	...	...	...	...	2,275 ...	370 ...	14,525 ...	...	...	...	17,170 ...	38	2,349,952 ...	57,704 ...	2,292,278 ...
	Total ...	16,219	18,490	571	135,600	...	16,750	2,915	1	...	190,645	62	...	...	62	2,467	410	15,503	...	...	...	18,380	41	2,647,903	62,287	2,585,616

9	Poona	{ Rayatwari ...	2,877	1,379	171	84,373	...	25,764	11,986	...	...	...	...	...	...	37	199	4,073	...	...	1	4,310	182	1,646,081	79,248	1,866,838	
		{ Other Govt. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		{ Alienated ...	273	253	9	10,423	...	4,204	3,235	...	...	...	...	...	...	...	...	44	531	...	...	...	625	68	309,898	18,236	293,363
Total ...		2,950	1,632	180	91,796	...	29,968	15,201	...	...	...	...	...	...	...	37	243	4,654	...	...	1	4,935	250	1,955,679	95,484	1,860,195	
10	Sholapur	{ Rayatwari ...	8,013	21,256	4,065	116,383	...	16,755	12,526	...	...	...	...	...	...	...	973	66	21,955	...	...	...	22,994	68	1,855,687	41,012	1,814,675
		{ Other Govt. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		{ Alienated ...	352	1,758	243	8,512	...	972	501	...	...	...	...	...	...	...	...	46	795	...	...	...	841	1	138,407	4,993	133,409
Total ...		8,365	23,014	4,308	125,025	...	17,727	13,027	...	...	...	...	...	...	...	1,019	66	22,750	...	...	...	23,835	64	1,994,094	46,010	1,948,084	
11	Satara	{ Rayatwari ...	231	2,400	320	25,473	...	12,226	32,740	...	...	...	...	...	...	...	5,031	2,830	7,440	...	...	...	15,804	244	1,421,154	113,896	1,308,458
		{ Other Govt. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		{ Alienated ...	9	364	22	2,514	...	2,382	7,951	172	323	927	1,412	67	245,086	24,003	221,083
Total ...		261	2,824	342	28,987	...	14,607	40,691	...	...	...	...	...	...	...	5,202	3,153	8,367	...	...	...	16,722	311	1,666,240	136,699	1,529,541	
III.—Karnatak.																												
12	Belgaum	{ Rayatwari ...	10,692	1,972	6,757	21,130	...	4,941	1,763	...	...	...	...	...	...	...	125,008	2,074	5,666	...	...	...	132,746	13	1,442,890	39,474	1,403,416
		{ Other Govt. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		{ Alienated ...	1,821	627	2,259	4,714	...	897	964	23,634	733	1,132	24,499	10	310,113	5,829	310,784
Total ...		12,513	2,599	9,015	30,844	...	5,838	2,727	...	...	...	...	...	...	...	47	147,640	2,807	6,798	...	...	...	157,245	23	1,759,003	44,803	1,714,200
13	Bijapur	{ Rayatwari ...	7,644	73,670	2,932	78,230	...	11,093	34	...	...	...	...	...	...	...	153,644	11	4,952	...	...	...	159,607	13	2,338,003	4,356	2,333,617
		{ Other Govt. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		{ Alienated ...	654	8,278	302	8,931	...	1,327	8	25,171	1	380	25,652	...	275,102	429	274,673
Total ...		8,194	86,848	3,234	85,170	...	12,420	39	...	...	...	...	...	...	...	178,815	12	5,332	...	...	...	184,159	13	2,613,105	4,815	2,608,290	
14	Dharwar	{ Rayatwari ...	39,921	14,250	11,058	29,550	...	2,005	11	466,454	171	5,050	471,675	13	2,036,519	69,671	1,967,339
		{ Other Govt. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		{ Alienated ...	1,057	677	476	1,176	...	121	15,640	...	363	16,293	1	111,834	2,863	108,969
Total ...		40,978	14,933	11,534	30,726	...	2,216	11	...	...	...	...	...	...	...	482,294	171	5,413	...	...	...	487,878	14	2,148,344	71,536	2,076,808	
IV.—Konkan.																												
15	Thana	{ Rayatwari ...	2,500	...	1,823	4	16	8,791	...	...	...	...	...	...	...	...	...	2,987	2,547	...	...	...	5,634	6	447,972	3,427	443,635
		{ Other Govt. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		{ Alienated ...	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		2,517	...	1,823	4	16	8,859	...	...	...	...	...	...	...	...	...	...	3,010	2,911	...	...	...	5,921	6	457,201	3,517	453,684
16	Kolaba	{ Rayatwari ...	1,146	...	10	1,000	101	137	214	2	244,571	6,223	238,348
		{ Other Govt. ...	2,867	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		{ Alienated ...	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		3,717	...	10	...	...	1,296	...	...	...	...	...	...	...	...	...	...	230	138	...	...	...	368	2	403,839	10,020	393,819
17	Ratnagiri	{ Rayatwari ...	164	8,792	1,614	1	1,615	134	123,595	8,790	114,815
		{ Other Govt. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		{ Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		164	...	...	...	...	6,245	...	...	...	...	...	...	...	...	...	...	1,555	1	...	...	...	1,556	134	130,365	9,151	121,214
18	Kánara	{ Rayatwari ...	101	...	...	...	...	45	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		{ Other Govt. ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		{ Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		101	...	...	...	...	45	...	...	...	...	...	...	...	...	...	...	1	101	...	...	...	257	50	247,220	11,727	235,493
Total, A.	{ Rayatwari ...	261,831	194,324	76,978	483,350	...	1,713	193,922	64,635	3	9,667	1,36,067	1,735	645	57	11	2,69	1,01,387	22,591	79,140	2,053,124	2,469	21,293,015	674,600	20,723,595
	{ Other Govt. ...	17,740	2,150	4,716	23,302	...	184	2,197	19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	{ Alienated ...	9,314	10,179	3,889	56,382	...	29	15,451	13,789	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...		287,453	212,670	84,841	541,998	...	1,893	211,600	98,446	2	11,204	1,450,112	1,908	1,034	87	11	3,060	2,222,032	26,900	85,940	2,234,874	2,666	24,312,877	755,320	23,557,557

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III.—Crops, 1897-98—concluded.

No.	District.	VIII.—OIL SEEDS.										IX.—DRUGS.					X.—FIBRES.					Gross Area cropped.	Product Area cropped more than once.	Remainder Net Area cropped.			
		Sesame (Til), Sesamum indicum.	Linseed (Alsi, Jovra), Linum usitatissimum.	Castor-oil seed (Erandiya, Bichnis communis).	Safflower seed (Kardai), Carthamus tinctorius.	Rapeseed (Shitree), Brassica napus.	Mustard seed (Khurami), Guizotia abyssinica.	Groundnut (Dhulning), Arachis hypogea.	Cocoanut (Khabaro), Cocos nucifera.	Others.	Total, VIII.	Indigo (Nil, Gull), Indigofera tinctoria.	Safflower (Karanba), Carthamus Fereous.	Morinda (Al, Surandi), Morinda citrifolia.	Others.	Total, IX.	Cotton (Kapus), Gossypium herbaceum.	Bombay Hemp (Yan, Tak), Crotalaria juncea.	Hemp (Ambedi, Shoria), Hibiscus cannabinus.	Jute (Corchorus).	Rhee.				Others.	Total, X.	XI.—MISCELLANEOUS.
1	2	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92
B.—SIND.											Acres.					Acres.							Acres.	Acres.	Acres.	Acres.	Acres.
19	Karachi	Rayatwari.. 6,643 Other Govt.. 1,980 Alienated .. 65	...	99	...	14,812	...	...	...	51,904	73,458	5	...	...	...	5	521	127	...	...	...	...	64	3,577	534,207	33,698	500,519
		Total ... 8,678	...	99	...	16,728	...	...	...	54,717	80,222	5	...	...	...	5	615	135	...	...	...	...	750	26,027	626,500	35,365	591,135
20	Hyderabad	Rayatwari.. 83,758 Other Govt.. ... Alienated .. 2,067	...	...	...	12,089	...	...	...	78,427	124,284	7,635	...	...	7	7,542	61,354	158	...	1	...	...	61,512	14,022	856,808	28,420	828,332
		Total ... 35,815	...	...	...	13,333	...	...	...	89,725	138,873	7,637	...	...	7	7,644	70,062	189	...	1	...	...	70,252	19,186	972,420	29,949	942,471
21	Shikarpur	Rayatwari.. 15,669 Other Govt.. 1 Alienated .. 1,820	...	...	...	80,976	...	...	...	49,801	96,445	1,268	...	...	425	1,691	3,528	58	...	...	...	...	3,580	1,519	1,152,954	157,003	995,951
		Total .. 17,489	...	...	...	37,143	...	...	...	54,694	109,326	2,778	...	...	425	3,203	4,106	59	...	...	...	...	4,165	1,611	1,245,867	161,264	1,084,603
22	Upper Sind Frontier.	Rayatwari.. 64,479 Other Govt.. ... Alienated .. 1,040	...	1	...	6,851	...	...	...	20,612	93,943	98	...	...	98	892	892	10	...	...	...	...	892	177	404,057	23,023	321,934
		Total ... 65,519	...	1	...	22,369	...	...	...	21,883	109,772	98	...	...	98	891	891	10	...	...	...	...	901	177	440,836	24,349	416,487
23	Thar and Parkar.	Rayatwari.. 6,068 Other Govt.. 15,753 Alienated .. 83	1	290	...	5,740	...	...	...	31,432	43,239	343	...	...	343	80,200	80,200	24	...	1	...	...	30,221	8,876	333,280	9,674	323,606
		Total ... 21,851	1	290	...	6,053	...	...	...	32,114	60,300	343	...	...	343	80,903	80,903	26	...	1	...	...	30,930	9,013	778,978	11,192	767,786
	Total, B.	Rayatwari.. 129,614 Other Govt.. 17,733 Alienated .. 5,005	1	390	...	73,478	...	...	...	232,176	431,369	9,247	...	...	432	9,670	96,485	377	...	2	...	...	96,661	23,172	3,292,206	251,814	3,030,392
		Total ... 142,352	1	390	...	95,626	...	...	...	253,133	498,502	10,861	...	...	432	11,293	106,577	419	...	2	...	...	106,998	56,014	4,064,601	262,119	3,802,432
	GRAND TOTAL...	Rayatwari.. 386,997 Other Govt.. 35,479 Alienated .. 13,329	191,325	76,320	485,380	74,193	188,922	84,639	2	241,843	1,737,436	11,002	845	87	443	12,377	2,077,872	22,968	79,142	...	...	...	2,179,984	30,671	24,676,204	920,217	23,755,987
		Total ... 436,865	212,671	85,231	541,998	97,524	211,600	98,446	2	264,337	1,943,614	12,769	1,054	87	443	14,353	2,328,609	27,319	85,942	...	...	...	2,441,872	58,680	28,377,478	1,017,439	27,360,039

IV.—Irrigation, 1897-98.

No.	District.	Net area cropped.	AREA IRRIGATED FROM CANALS.		Area irrigated from wells.	Area irrigated from tanks.	Area irrigated from other sources.	Total area irrigated.	CROPPING OF IRRIGATED AREA.							Deduct area cropped with irrigation more than once.	Balance net irrigated area.	
			From Government Canals.	From Private Canals.					Wheat.	Rice.	Other cereals and pulses.	Sugarcane.	Other food crops.	Non-food crops.	Fodder crops.			Total.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
A.—BOMBAY PRESIDENCY PROPER.																		
<i>I.—Gujarat.</i>																		
1	Ahmedabad	618,378	5,571	.....	39,098	3,001	2,781	50,451	14,768	8,030	21,988	1,107	3,206	3,309	125	52,511	2,060	50,451
		631,258	115	.....	4,279	4,390	9,295	17,969	8,479	3,942	3,653	193	531	86	2,161	17,969	.....	17,969
		1,491	456	.....	273	.....	.....	729	50	550	107	1	21	.....	729	.....	729	
	Total	1,151,117	6,142	.....	43,650	7,231	12,076	69,149	23,297	11,422	25,725	1,396	3,778	3,395	2,286	71,209	2,060	69,149
2	Kaira	493,069	1,126	.....	21,639	698	1,961	25,094	8,400	154	1,755	404	1,437	7,033	396	25,569	465	25,094
		144,483	.....	.....	13,762	51	84	12,917	1,408	14	1,282	427	546	9,378	216	13,251	334	12,917
	
	Total	639,572	1,126	.....	34,421	719	1,745	38,011	9,808	163	9,017	831	1,983	16,401	602	38,810	799	38,011
3	Panch Mahals	251,611	175	20	1,219	170	.....	1,593	592	174	80	320	277	305	1	1,599	6	1,593
		68,003	.....	.....	784	.....	.....	734	263	.....	.....	88	334	101	.....	734	.....	734
		87,485	.....	.....	144	.....	.....	144	69	.....	.....	14	58	3	144	.....	144	
	Total	357,099	175	29	2,097	170	.....	2,471	923	174	32	270	669	408	1	2,477	6	2,471
4	Broach	566,329	.....	.....	762	117	.....	879	3	124	3	94	399	277	.....	900	21	879
		399	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	
	Total	567,228	.....	.....	762	117	.....	879	3	124	3	94	399	277	.....	900	21	879
5	Surat	472,153	3	.....	6,797	3,238	96	10,134	113	3,084	133	4,819	1,537	576	.....	10,302	223	10,134
		5,659	.....	.....	99	.....	.....	99	.....	.....	.....	81	.....	18	.....	99	.....	99
		3,722	.....	.....	23	.....	.....	23	.....	.....	.....	6	15	.....	23	.....	23	
	Total	481,531	3	.....	6,919	3,233	96	10,256	113	3,084	133	4,908	1,552	694	.....	10,494	223	10,256
<i>II.—Deccan.</i>																		
6	Khandesh	2,680,766	13,610	1,022	50,391	207	392	67,692	27,410	2,139	6,855	2,408	11,594	20,501	1,295	72,262	4,510	67,692
		51,793	36	93	51	.....	12	195	128	.....	4	2	24	37	.....	195	.....	195
		69,123	20	299	1,196	.....	13	1,527	396	4	194	130	536	263	.....	1,545	18	1,527
	Total	3,004,057	13,610	1,413	52,070	207	392	67,692	27,410	2,139	6,855	2,408	11,594	20,501	1,295	72,262	4,510	67,692
7	Nasik	1,734,480	23,912	211	66,063	154	19,400	92,309	36,059	3,467	20,896	6,325	14,148	20,419	3,152	104,456	12,117	92,309
		115,559	2,003	.....	3,179	.....	999	6,181	1,721	241	1,067	664	1,333	1,594	136	6,730	649	6,181
	Total	1,830,000	23,912	211	49,233	154	19,400	92,309	36,059	3,467	20,896	6,325	14,148	20,419	3,152	104,456	12,117	92,309
8	Ahmednagar	2,585,016	6,516	.....	96,809	.....	6,921	110,246	28,926	293	67,744	1,096	8,763	9,433	5,973	122,223	11,992	110,246
	
	
	Total	2,585,016	6,516	96,809	6,921	110,246	28,926	293	67,744	1,096	8,763	9,433	5,973	122,223	11,992	110,246

XXIII

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17	Rajnágiri	{ Rayatwari ... Other Government... Alienated ...	114,815 3,302 3,197	2,788 99 111	5,326 198 211	9,114 387 323	1	3,078 32 178	1,032 36 36	152 5 17	2,920 199 67	990 18 26	8,181 287 323	17	8,114 287 323
	Total		121,214	.....	.....	2,999	.....	5,724	8,723	1	3,286	1,103	172	3,195	983	.....	8,740	17	8,723
18	Kánara	{ Rayatwari ... Other Government... Alienated ...	236,608 ..... .....	..... ..... .....	..... ..... .....	2,842 2,088 2,648	..... ..... .....	13,587 81,080 .....	..... ..... .....	..... ..... .....	13,864 411 .....	..... ..... .....	2,509 8,104 .....	..... 2,112	1 ..... .....	..... ..... .....	21,100	20	21,080
	Total		235,502	.....	.....	2,842	.....	13,587	21,080	.....	12,964	411	2,508	3,104	2,112	1	21,100	20	21,080
	Total, A	{ Rayatwari ... Other Government... Alienated ...	20,725,896 964,417 1,887,546	133,009 151 16,621	12,126 92 2,111	508,071 18,938 50,228	95,027 4,321 9,189	108,305 9,194 14,544	814,835 32,321 85,088	180,550 10,278 15,497	183,416 3,888 14,267	335,048 4,968 32,879	46,817 747 6,509	108,314 1,950 13,618	124,454 9,643 13,593	16,175 3,377 1,838	953,754 32,568 97,558	109,219 334 10,968	944,585 32,331 86,089
	Total		23,557,557	133,778	14,329	574,365	108,538	132,444	963,454	206,265	150,661	372,880	53,073	120,612	157,994	22,390	1,083,875	120,421	963,454
B.—SIND.																			
19	Karáchi	{ Rayatwari ... Other Government... Alienated ...	800,519 79,381 10,735	187,283 2,247 812	184,928 9,437 1,304	1,761 5 48	..... ..... .....	55,259 10,474 2,087	411,231 22,393 4,769	88,188 1,235 1,107	310,097 16,232 1,918	112,537 9,361 623	1,233 7 18	4,074 116 89	54,299 3,512 1,071	..... ..... .....	442,591 24,493 4,323	21,300 1,220 64	411,331 23,283 4,769
	Total		591,135	191,342	177,329	1,812	.....	68,770	439,253	60,591	223,247	116,560	1,306	4,278	60,816	79	471,897	32,644	439,253
20	Hyderabad	{ Rayatwari ... Other Government... Alienated ...	326,383 114,089	781,626 100,789 .....	..... ..... .....	2,841 ..... .....	..... ..... .....	57,998 11,969 113,616	803,149 4,924	90,733 34,000	188,385 48,846	376,526	684 138	14,323 1,209 24,340	100,468 4,687	10,746	828,689 115,089	26,726 1,628	808,148 113,816
	Total		942,471	842,445	.....	4,638	.....	69,576	916,659	65,557	220,335	422,372	817	15,589	204,806	15,433	944,908	28,249	916,659
21	Shikárpur	{ Rayatwari ... Other Government... Alienated ...	905,961 19,549 62,113	793,378 41,487	..... ..... .....	18,562 662 607	..... ..... .....	22,339 1,489 1,011	322,076 2,137 48,224	199,313 127 9,678	256,697 5,898	401,448 1,965 21,258	860 10	17,486 15 304	92,039 78 2,968	1,000 7	967,776 2,148 45,098	146,700 8 2,810	623,076 2,157 48,266
	Total		1,084,608	829,915	.....	11,817	.....	25,716	867,498	208,115	262,555	424,762	570	17,695	101,043	1,076	1,016,016	149,518	867,498
22	Upper Sind Frontier	{ Rayatwari ... Other Government... Alienated ...	361,894 26,400 9,153	384,183 26,167 9,153	..... ..... .....	131 ..... .....	..... ..... .....	923 339,313 25,167	31,339 9,153	23,520 192 24	221,433 12,273 4,917	..... ..... .....	17	1,237 28 904	99,968 13,450 2,211	..... ..... .....	361,893 26,304 9,242	22,400 1,187 189	340,812 25,187 9,153
	Total		416,487	373,508	.....	131	.....	993	373,632	21,915	23,898	240,622	17	2,279	108,717	.....	397,448	23,816	373,632
23	Thar and Párkar	{ Rayatwari ... Other Government... Alienated ...	393,896 440,473 2,797	313,988 2,579 2,700	..... ..... .....	25 9 .....	..... ..... .....	..... 318,994 2,928	21,268 3,700	161,646 61 1,747	61,964 2,098 628	..... ..... .....	58	1,577 31 15	73,716 708 928	3,000 187	323,356 2,928 2,700	9,908 48	313,991 2,976 2,700
	Total		767,786	320,538	.....	44	.....	.....	320,582	21,332	163,628	64,851	59	1,626	75,359	3,137	329,992	9,410	320,582
	Total, B.	{ Rayatwari ... Other Government... Alienated ...	2,000,392 945,293 208,797	2,269,294 21,398 156,081	168,928 9,547 1,384	16,320 623 1,489	..... ..... .....	129,104 11,943 15,008	2,699,756 23,486 174,418	360,041 1,779 15,030	826,659 16,465 48,539	1,174,822 19,653 74,612	2,008 159 159	26,654 17,726 2,614	496,461 55,898 87,624	14,894 4,831	1,928,304 55,898 178,528	224,628 2,418 4,526	2,000,756 53,455 174,613
	Total		3,802,482	2,556,778	177,729	18,462	.....	165,053	3,917,624	377,450	898,663	1,269,167	2,769	41,667	550,820	19,725	1,160,261	242,637	2,917,624
	Grand Total	{ Rayatwari ... Other Government... Alienated ...	23,788,987 1,629,719 2,074,342	2,492,469 21,544 198,712	174,754 9,829 2,273	522,291 18,744 21,022	95,027 4,321 9,189	266,409 21,429 29,523	2,831,291 23,626 261,101	549,891 12,657 31,027	973,075 19,263 57,598	1,809,929 24,639 127,491	48,429 754 6,088	145,708 1,279 12,323	629,918 27,377 81,522	28,019 2,777 6,088	2,979,148 28,433 278,556	244,957 2,747 12,454	2,834,391 53,089 261,101
	Total		27,361,039	2,700,553	191,658	592,817	108,138	297,499	3,881,078	583,715	1,049,324	1,642,047	55,842	162,279	708,514	42,115	4,244,136	363,036	3,881,078

V.—Agricultural Stock, 1897-98.

No.	District.	CATTLE.										OTHER QUADRUPEDS.					PLOUGHS.		CARTS.		
		Plough Cattle.		Bulls for breeding purposes.		Oxen and He-Bufferaloes of other purposes.		Milk Cattle.		Young Stock.		Total Cattle.	Horses and Ponies.	Sheep.	Goats.	Camels.	Mules and Donkeys.	Small.	Large, i.e., over two bullocks.	For riding.	For carrying loads.
		Oxen.	He-Bufferaloes.	Bulls.	Bull-Bufferaloes.	Oxen.	He-Bufferaloes.	Cows.	She-Bufferaloes.	Calves.	Buffalo Calves.										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
A.—BOMBAY PRESIDENCY PROPER.																					
<i>Gujarat.</i>																					
1	Almedabad ...	74,566	58	413	464	4,537	314	55,955	67,608	39,468	38,134	281,877	3,406	12,098	22,559	407	6,035	35,673	2	1,133	12,056
	{ Rayatwari ...	47,264	219	458	147	287	85	40,813	26,325	16,381	10,098	142,087	1,575	19,994	21,541	224	1,925	21,188	.....	171	6,209
	{ Other Government ...	253	.....	.....	.....	.....	.....	20	294	87	246	880	1	5	40	.....	2	119	.....	3	20
	{ Alienated ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total ...	122,053	277	931	551	4,804	399	96,688	94,227	55,936	48,478	424,344	4,982	31,095	44,140	631	7,962	56,880	2	1,307	18,891
2	Kaira ...	60,549	24	201	389	723	24	89,068	83,668	39,024	63,853	316,822	1,743	3,366	16,880	134	3,775	48,952	.....	971	18,784
	{ Rayatwari ...	19,974	5	14	173	300	7	1,791	37,845	3,790	25,203	59,092	298	919	6,171	28	1,734	12,555	.....	622	7,361
	{ Other Government ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{ Alienated ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total ...	103,522	29	215	562	1,123	31	40,859	121,513	42,804	89,056	405,614	2,041	4,345	33,051	160	5,509	61,807	.....	1,593	26,145
3	Panch Mahals ...	71,138	8	160	252	1,012	42	51,799	17,104	40,144	10,319	197,978	1,099	2,428	22,278	9	1,413	31,713	.....	144	6,823
	{ Rayatwari ...	19,125	3	82	40	592	23	19,580	4,863	12,251	2,695	62,554	572	2,288	6,144	6	333	9,599	.....	77	2,652
	{ Other Government ...	6,377	8	35	31	13	.....	6,408	1,861	5,397	1,148	23,266	158	243	1,611	.....	167	4,202	.....	8	749
	{ Alienated ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total ...	98,640	19	277	323	1,417	65	71,787	23,313	63,792	14,160	273,798	2,726	4,957	30,033	15	1,853	48,574	.....	229	9,424
4	Broach ...	52,288	2	97	130	1,334	76	12,356	30,272	16,081	20,332	132,918	2,786	14,966	21,261	106	1,655	24,248	.....	3,450	15,092
	{ Rayatwari ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{ Other Government ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{ Alienated ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total ...	52,288	2	97	130	1,334	76	12,356	30,272	16,081	20,332	132,918	2,786	14,966	21,261	106	1,655	24,248	.....	3,450	15,092
5	Surat ...	88,139	3,964	229	212	8,451	177	64,230	45,131	73,179	33,447	327,099	1,612	26,985	65,099	1	390	47,625	850	9,270	20,788
	{ Rayatwari ...	778	65	2	2	85	.....	630	297	738	194	2,719	1	80	174	.....	.....	379	8	45	229
	{ Other Government ...	698	11	2	.....	94	2	384	244	308	123	1,714	4	51	100	.....	.....	267	1	63	213
	{ Alienated ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total ...	99,505	3,980	233	214	8,520	179	65,244	45,672	74,221	33,764	331,532	1,617	27,116	65,943	1	200	48,271	859	9,378	30,230
<i>II.—Deccan.</i>																					
6	Khandesh ...	305,873	1,457	3,138	643	17,820	1,677	137,243	95,443	117,097	55,813	736,304	21,079	30,602	712,012	8	7,959	86,184	16,517	39,962	66,550
	{ Rayatwari ...	20,184	18	155	46	635	9	15,846	2,389	13,051	1,367	53,690	421	40	5,186	.....	108	9,705	.....	337	2,914
	{ Other Government ...	9,247	55	63	19	651	42	4,172	2,502	3,282	1,425	21,658	645	1,842	6,824	.....	597	1,982	.....	984	1,659
	{ Alienated ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total ...	325,304	1,520	3,356	708	19,206	1,728	157,261	100,334	133,430	58,705	811,562	22,045	31,984	223,822	8	8,459	97,931	17,501	41,208	71,053
7	Nasik ...	187,819	18,552	2,252	161	10,069	448	129,436	27,228	75,575	13,524	465,693	14,078	67,969	115,821	3	3,543	50,163	21,415	9,179	25,416
	{ Rayatwari ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{ Other Government ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{ Alienated ...	12,767	1,688	223	8	491	15	6,989	1,673	4,401	778	28,333	777	3,764	5,405	.....	2.1	2,579	1,679	491	1,900
	Total ...	200,586	19,670	2,475	169	11,159	463	136,425	28,801	79,976	14,202	494,026	14,855	91,753	121,226	3	4,744	53,047	23,094	10,470	27,325
8	Ahmednagar ...	230,255	3,824	550	115	7,560	558	117,388	24,430	70,893	10,763	466,386	16,805	168,231	197,429	6	5,900	9,157	36,555	11,709	18,538
	{ Rayatwari ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	{ Other Government ...	26,069	23	55	6	723	35	12,717	2,265	7,339	927	60,078	1,838	22,181	21,157	.....	790	1,036	3,830	1,204	1,808
	{ Alienated ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total ...	256,323	3,847	585	121	8,283	593	130,105	26,685	78,232	11,690	516,464	18,643	190,412	208,486	6	6,690	10,193	40,385	12,913	20,646

9	Poona	...	{Rayatwari ...	190,225	6,427	803	139	5,940	458	110,523	35,071	66,807	15,019	430,017	10,450	160,639	100,183	25	4,797	24,658	21,663	3,251	1,9266	
			{Other Government
			{Alienated
			Total ...	223,221	5,825	342	159	6,547	572	131,147	40,887	79,018	17,746	510,464	12,142	171,444	117,550	25	5,567	27,960	26,103	3,654	22,316	
10	Sholapur	...	{Rayatwari ...	153,227	2,309	513	177	4,638	1,214	62,047	23,567	44,016	12,608	304,307	7,734	148,632	151,269	84	2,827	1,597	12,853	1,042	12,142	
			{Other Government ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			{Alienated
			Total ...	176,497	2,554	613	198	5,107	1,335	71,970	26,273	52,222	14,416	351,185	8,916	197,474	170,611	45	3,156	1,985	15,196	1,110	13,926	
11	Satara	...	{Rayatwari ...	174,962	8,863	478	166	3,949	555	100,283	62,767	71,556	33,107	461,701	10,207	257,825	69,655	...	2,377	16,592	19,468	939	20,176	
			{Other Government ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			{Alienated
			Total ...	207,934	10,877	544	205	4,493	628	118,602	75,186	81,446	43,347	546,262	11,549	288,940	106,348	...	2,686	21,447	22,733	1,095	23,685	
<i>III.—Karnatak.</i>																								
12	Belgaum	...	{Rayatwari ...	146,736	24,826	247	87	5,460	582	77,316	70,273	68,517	44,136	437,194	5,264	145,199	61,986	12	2,719	67,098	8,254	629	27,437	
			{Other Government ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			{Alienated
			Total ...	176,343	28,023	277	110	6,473	697	92,020	84,440	81,485	53,097	522,965	6,546	187,412	101,885	19	2,944	65,206	10,611	649	32,052	
13	Bijapur	...	{Rayatwari ...	132,788	1,454	135	109	3,678	1,073	43,195	37,625	50,651	21,976	292,892	4,981	116,436	205,615	105	4,024	35,838	5,834	121	13,874	
			{Other Government ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			{Alienated
			Total ...	150,801	1,671	201	122	3,992	1,190	48,905	42,722	58,435	25,346	333,385	5,674	138,756	235,402	155	4,509	41,359	6,616	152	15,592	
14	Dharwar	...	{Rayatwari ...	191,131	15,040	556	217	9,121	807	90,816	77,486	120,456	62,903	568,595	4,307	115,600	102,113	3	8,765	88,918	5,242	713	49,406	
			{Other Government ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			{Alienated
			Total ...	205,618	17,143	569	239	9,657	833	98,588	83,091	130,595	67,515	613,898	4,549	119,460	108,899	3	6,035	96,312	5,512	749	52,659	
<i>IV.—Konkan.</i>																								
15	Thana	...	{Rayatwari ...	119,531	61,144	675	63	3,917	203	69,049	22,461	87,581	16,184	690,941	1,329	8,322	40,000	...	1	73,645	...	4,662	25,806	
			{Other Government ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			{Alienated
			Total ...	123,705	42,149	475	63	4,305	226	101,635	23,246	89,845	16,788	402,437	1,474	3,761	41,570	...	2	75,900	...	4,737	26,764	
16	Kolaba	...	{Rayatwari ...	60,575	24,376	111	40	3,526	893	46,351	14,778	43,646	10,585	191,940	648	61	20,585	...	11	36,701	...	1,591	6,104	
			{Other Government ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			{Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Total ...	83,816	39,472	179	74	3,783	919	74,457	21,805	67,595	15,724	307,929	710	687	31,499	...	11	58,817	...	1,732	6,753	
17	Ratnagiri	...	{Rayatwari ...	45,448	10,047	10	11	1,139	191	23,012	8,433	21,308	5,979	116,634	68	44	8,911	...	...	20,223	...	190	623
			{Other Government ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			{Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Total ...	49,245	10,635	12	12	1,206	123	24,574	9,113	23,791	6,483	125,254	90	406	9,519	...	...	31,199	...	103	996
18	Kannara	...	{Rayatwari ...	75,631	23,861	429	80	4,153	985	69,752	24,493	59,530	12,625	272,544	293	1,821	4,039	1	63	54,495	...	69	5,951	
			{Other Government ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			{Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Total ...	76,631	23,861	429	80	4,153	985	69,752	24,493	59,530	12,625	272,544	293	1,821	4,039	1	63	54,495	...	69	5,951	
Total, A.	...	...	{Rayatwari ...	2,891,099	147,317	10,327	3,447	97,709	10,195	1,329,714	767,909	1,112,029	431,397	6,394,993	104,702	1,287,224	1,479,227	654	82,921	725,631	116,613	69,504	273,509
			{Other Government ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			{Alienated ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			Total ...	2,753,032	211,624	11,810	4,090	105,469	11,042	1,542,375	902,083	1,271,384	563,574	7,376,483	121,633	1,506,792	1,675,334	1,178	91,205	875,631	168,617	94,718	419,529	

Note.—Details for S and are not available.

Accompaniment A to Agricultural Return No. II.

Details of "Current Fallow," 1897-98.

No.	District.	True fallow, i.e., Customary fallow in rotation.	Grass lands, i.e., number or parts of number set apart for grass and never sown.	Grass bound or prickly- pear bound lands.	Shindad or Rab land.	Land unsown owing to unseasonable or deficient rainfall.	Land left unsown for miscellaneous reasons.	Total fallow (Column 6 of Agricultural Return No. II).
1	2	3	4	5	6	7	8	9
<i>I.—Gujarat.</i>								
1	Ahmedabad	Rayatwari... 1,829 Other Government... 1,377 Alienated... 1 Total... 3,207	13,719 72,181 92 85,972	644 4,182 13 4,819	..... ..... ..... .....	41,732 53,768 168 97,666	64,257 168,030 128 232,415	122,181 301,498 400 424,079
2	Kaira	Rayatwari... 2,919 Other Government... 939 Alienated... .. Total... 3,858	25,476 9,860 35,336	1,821 25 1,846	..... ..... ..... 22	10,038 975 19,713	31,865 840 32,705	81,141 12,339 93,480
3	Panch Mahals.	Rayatwari... 470 Other Government... .. Alienated... .. Total... 470	678 3,075 900 4,653	43 13,669 320 14,032	..... ..... ..... 1	3,622 9,658 5,468 18,738	38,203 54,680 20,147 113,989	43,007 82,041 26,815 151,883
4	Broach	Rayatwari... 34,143 Other Government... 105 Alienated... .. Total... 34,247	41,472 110 41,582	47 47	..... ..... ..... .....	4,930 4,930	5,293 5,293	85,884 86,127
5	Surat	Rayatwari... 138,408 Other Government... 2,360 Alienated... 151 Total... 141,914	114,243 1,589 1,208 117,040	196 196	..... ..... ..... .....	629 629	10,337 67 8 10,410	264,808 4,016 1,368 270,189
<i>II.—Deccan.</i>								
6	Khândesh	Rayatwari... 2,971 Other Government... .. Alienated... .. Total... 2,971	13,763 15 2,082 14,860	5,534 400 5,934	..... ..... ..... .....	5,257 737 5,994	217,528 937 10,642 229,107	244,053 952 13,861 258,866
7	Nāsik	Rayatwari... 146,937 Other Government... .. Alienated... .. Total... 158,830	75,838 2,351 78,189	3,608 297 3,895	7,833 287 7,620	51,350 1,844 53,194	160,058 9,061 169,119	445,124 25,723 470,847
8	Ahmednagar	Rayatwari... 75,917 Other Government... .. Alienated... .. Total... 86,547	35,455 8,469 43,914	4,311 241 4,552	856 332 1,188	66,543 14,926 81,479	264,853 41,925 306,778	447,935 70,523 524,458
9	Poona	Rayatwari... 188,189 Other Government... .. Alienated... .. Total... 218,769	124,822 33,181 158,003	23,113 2,587 25,700	22,098 1,397 23,495	43,830 9,245 53,081	123,351 24,461 147,812	625,409 101,451 626,860
10	Sholapur	Rayatwari... 94,896 Other Government... .. Alienated... .. Total... 107,834	99,819 4,652 104,471	70,335 1,453 77,788	2,160 16 2,176	52,813 1,985 54,798	152,764 15,739 168,503	478,777 36,793 515,570
11	Satara	Rayatwari... 186,889 Other Government... .. Alienated... .. Total... 251,412	218,480 42,198 260,678	5,737 943 6,680	2,637 603 3,195	10,082 1,684 11,746	58,734 9,868 68,602	482,609 119,704 602,313
<i>III.—Karnatak.</i>								
12	Belgaum	Rayatwari... 90,983 Other Government... .. Alienated... .. Total... 109,137	78,608 37,850 116,358	20,443 10,576 31,019	3 4 7	12,313 8,307 15,620	87,789 49,845 137,133	290,038 119,236 409,274
13	Bijapur	Rayatwari... 9,603 Other Government... .. Alienated... .. Total... 11,017	63,012 6,695 69,707	123,813 21,116 141,929	..... ..... ..... .....	116,945 12,670 129,655	170,914 30,055 200,969	481,627 71,750 553,277
14	Dhárwār	Rayatwari... 194 Other Government... .. Alienated... .. Total... 232	102,552 16,381 118,933	15,775 1,723 17,498	..... ..... ..... .....	8,692 968 9,660	103,808 14,617 117,225	229,821 33,727 263,548
<i>IV.—Konkan.</i>								
15	Thána	Rayatwari... 67,133 Other Government... 24 Alienated... 1,557 Total... 88,714	98,896 6,204 9,805 114,905	39,256 376 39,631	184,675 7,781 192,456	2,346 2,346	81,541 814 81,541	443,846 6,228 19,833 469,907
16	Kolába	Rayatwari... 67,108 Other Government... 85,003 Alienated... 1,155 Total... 163,265	45,133 6,957 1,848 52,535	4,507 2,013 6,580	53,672 30,628 338 84,636	443 60 523	7,537 9,785 10 17,322	178,459 143,565 2,847 324,871
17	Ratnágiri	Rayatwari... 83,511 Other Government... 5,091 Alienated... 1,251 Total... 99,883	5,252 230 5,462	3,886 169 3,035	26,275 312 273 26,910	1,567 1,567	13,909 273 175 19,357	149,390 6,125 1,699 156,214
18	Kánara	Rayatwari... 4,086 Other Government... .. Alienated... .. Total... 4,086	33,033 33,033	4,453 4,453	..... ..... ..... .....	2,068 2,068	54,963 54,963	98,602 98,602
Total		Rayatwari... 1,227,400 Other Government... 174,893 Alienated... 154,095 Grand Total... 1,486,393	1,189,139 99,301 167,200 1,455,630	329,561 20,038 40,035 389,634	399,782 30,890 10,934 341,706	444,236 66,181 52,990 563,407	1,601,503 236,899 226,493 2,063,595	5,091,611 657,077 651,747 6,300,365

Note.—Details for Sind are not available.

ACCOMPANIMENT A TO AGRICULTURAL RETURN No. III.

Number of Principal Fruit-bearing Trees, 1897-98.

No.	District.	Mango.	Tamarind.	Jack.	Cocoanut.	Toddy-palm.	Date-palm.
1	2	3	4	5	6	7	8
A.—BOMBAY PRESIDENCY PROPER.							
I.—Gujarat.							
1	Ahmedabad...	70,536	21,081	5	145	69	2,731
2	Kaira ...	229,771	26,623	...	.....	...	...
3	Panch Maháls ...	43,929	6,260	...	.....	130,746	...
4	Broach ...	24,867	5,766	3	221	33,696	1,238
5	Surat ...	189,275	66,495	3,835	7,659	78,329	616,363
	Total ...	558,378	126,227	3,813	8,026	212,840	520,332
II.—Deccan.							
6	Khánlesh ...	233,500	15,498	22	185	351	2,917
7	Násik ...	201,144	9,087	340	252	26	5,162
8	Ahmednagar ...	91,840	13,221	40	439	...	1,648
9	Poona ...	158,718	11,326	1,140	3,302	177	37,598
10	Sholápur ...	49,359	9,554	2	258	1	110,786
11	Sátára ...	190,188	12,568	10,545	6,591	...	223
	Total ...	927,749	71,253	12,089	11,027	555	158,369
III.—Karnátak.							
12	Belgaum ...	131,499	28,593	14,596	2,797	1	155,047
13	Bijápur ...	79,356	24,605	45	2,547	82	322,597
14	Dhárwár ...	184,600	60,787	8,083	69,331	1	221,613
	Total ...	395,455	113,985	22,724	74,675	84	999,257
IV.—Konkan.							
15	Thána ...	218,907	16,931	3,006	60,145	80,078	13,650
16	Kolába ...	95,278	5,997	6,797	67,069	18,598	30
17	Ratnágiri ...	100,416	4,962	51,942	587,082	3	87
18	Kánara ...	166,429	16,271	166,647	1,117,874	...	1,379
	Total ...	581,030	44,161	228,392	1,832,170	98,679	15,146
	Total, A. ...	2,462,612	355,626	267,018	1,925,898	342,158	1,693,104
B.—SIND.							
19	Karáchi ...	44,952	25	...	1,030	...	584
20	Hyderabad ...	93,111	33	...	.....	...	3,252
21	Shikárpur ...	61,184	65	...	.....	...	146,649
22	Upper Sind Frontier ...	3,598	3	...	.....	...	1,161
23	Thar and Párkar ...	11,110	...	...	.....	...	66
	Total, B. ...	213,955	126	...	1,030	...	151,715
	GRAND TOTAL ...	2,676,567	355,752	267,018	1,926,928	342,158	1,844,819

ACCOMPANIMENT B TO AGRICULTURAL RETURN NO. III.
 Details of Kharif and Rabi under Cereals and Pulses, 1897-98.

CLASS I.—CEREALS.

No.	District.	Jowari, Sorghum vulgare.	Bajri, Pennisetum typhoidesum.	Rice, Oryza sativa.	Wheat, Triticum Aestivum.	Barley, Hordeum vulgare.	Maize, Zea mays.	Kodra, Paspalum scrobiculatum.	Ragi, Eleusine coracana.	Rala, Panicum Italicum.	Varal, P. miliare.	Banti, P. flavidum.	Bhadli, P. pilosum.	Rajgira, Amaran- thus fru- mentaceus.	Others.	Total Cereals.	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
<i>I.—Gujarat.</i>																	
1	Ahmedabad ...	{ Kharif ...	255,838	150,334	54,931	.....	2,855	17,182	5,375	8	5,417	25,773	...	...	...	Acres. 517,713
		{ Rabi ...	11,839	200,903	25,771	1,395	912	96	37		240,933
		Total ...	267,677	150,334	54,931	200,903	25,771	4,250	17,182	5,375	950	5,513	25,773	...	37		758,696
2	Kaira...	{ Kharif ...	51,555	183,533	100,901	.....	578	110,357	54,894	46	323	1,652	...	19	362	504,220
		{ Rabi ...	1,591	71	7	122,715	6,832	50	303	2	...	181	...		32,857
		Total ...	53,146	183,604	100,908	22,715	6,832	628	110,357	54,894	349	1,428	1,654	...	200		362	537,077
3	Panch Mahals ...	{ Kharif ...	5,385	43,045	60,673	.....	112,313	26,584	14,997	155	2,884	16,514	329	5	2,472	285,356
		{ Rabi ...	913	12,059	1,621	15		14,608
		Total ...	6,298	43,045	60,673	12,059	1,621	112,313	26,584	14,997	155	2,884	16,514	329	5		2,487	299,964
4	Broach ...	{ Kharif ...	12,335	14,884	20,993	.....	11	9,307	252	1	203	8	...	1	...	57,995
		{ Rabi ...	141,248	50,258		191,506
		Total ...	153,583	14,884	20,993	50,258	...	11	9,307	252	1	203	8	...	1		...	249,501
5	Surat...	{ Kharif ...	139,210	7,960	105,048	.....	3	34,437	13,548	1	89	792	67	...	119	301,274
		{ Rabi ...	1,800	30,676		32,476
		Total ...	141,010	7,960	105,048	30,676	...	3	34,437	13,548	1	89	792	67	...		119	333,750
<i>II.—Deccan.</i>																	
6	Khandesh ...	{ Kharif ...	625,636	820,693	25,438	.....	7,577	6,905	9,199	2,125	5,020	5,548	2,305	248	59	1,510,753
		{ Rabi ...	2,700	150,459	69		153,223
		Total ...	628,336	820,693	25,438	150,459	69	7,577	6,905	9,199	2,125	5,020	5,548	2,305	248		59	1,663,981
7	Nasik...	{ Kharif ...	39,646	882,196	56,203	.....	3,063	4	114,734	1,154	30,439	46	3,469	317	58	1,131,329
		{ Rabi ...	74,511	207,190	...	860		282,561
		Total ...	114,157	882,196	56,203	207,190	...	3,923	4	114,734	1,154	30,439	46	3,469	317		58	1,413,890
8	Ahmednagar...	{ Kharif ...	6,463	975,404	13,390	.....	2,029	316	20,526	13,626	12,633	57	3,437	177	738	1,048,796
		{ Rabi ...	954,314	151,408	431	290	52	98		1,106,593
		Total ...	960,777	975,404	13,390	151,408	431	2,319	316	20,526	13,626	12,633	57	3,437	229		836	2,155,389
9	Poona ...	{ Kharif ...	104,042	590,972	69,279	.....	1,381	108	42,193	1,644	26,579	116	3,170	74	2,969	842,527
		{ Rabi ...	675,229	72,948	904	258	4	14	...	1,201		750,553
		Total ...	779,271	590,972	69,279	72,948	904	1,639	108	42,193	1,644	26,579	120	3,184	74		4,170	1,593,085

10	Sholapur	{ Kharif	7,909	259,786	19,154	.....	2,700	12,954	64	58	2,971	5,479	3	1,565	97	1	310,041
		{ Rabi	1,224,696	39,994
	Total		1,232,605	259,786	19,154	39,994	2,700	12,954	64	58	2,971	5,479	3	1,565	97	1	1,577,431
11	Sátára	{ Kharif	279,687	405,049	45,853	.....	4,057	9,283	29	51,361	26,502	53,888	46	.....	677	5,027	877,492
		{ Rabi	283,078	52,770	1,654
	Total		562,765	405,049	45,853	52,770	4,057	10,937	29	51,361	26,502	53,888	46	.....	677	5,027	1,218,961
<i>III.—Karnátak.</i>																	
12	Belgaum	{ Kharif	555,695	152,186	114,537	935	20	6,973	41	46,226	55,269	32,947	.....	.....	4	290	965,123
		{ Rabi	167,187	529	676	86,702	107	3,016	5,980	1
	Total		722,882	152,715	115,213	87,637	127	9,989	41	46,226	61,249	32,948	.....	.....	4	290	1,229,321
13	Bijápur	{ Kharif	420,483	285,039	9,815	.....	.....	2,055	27	109	17,544	7,880	1	.....	1	.....	742,954
		{ Rabi	1,166,109	18	125,346	9	179	5	9	.....	1,291,675
	Total		1,586,592	285,057	9,815	125,346	9	2,234	27	109	17,549	7,880	1	.....	1	9	2,034,629
14	Dhárwár	{ Kharif	572,436	5,151	157,103	.....	6	61	19	43,941	68,100	42,724	24	.....	.....	.....	889,565
		{ Rabi	122,251	204,776	2,890	135
	Total		694,687	5,151	157,103	204,776	6	61	19	43,941	70,990	42,859	24	.....	.....	.....	1,219,617
<i>IV.—Konkan.</i>																	
15	Thána	{ Kharif	39	.....	308,507	.....	.....	2	12,580	56,135	.....	22,390	.....	.....	.....	.....	399,653
		{ Rabi	107
	Total		39	.....	308,507	107	.....	2	12,580	56,135	.....	22,390	.....	.....	.....	.....	399,760
16	Kolába	{ Kharif	.....	.....	246,635	.....	.....	.....	16,258	60,253	.....	49,130	.....	.....	.....	.....	372,276
		{ Rabi
	Total		.....	.....	246,635	.....	.....	.....	16,258	60,253	.....	49,130	.....	.....	.....	.....	372,276
17	Ratnágiri	{ Kharif	.....	.....	48,594	.....	.....	.....	16,170	22,070	.....	10,730	.....	.....	.....	.....	97,864
		{ Rabi	.....	6	2,820	1	.....	2	.....	450	21	4	.....	.....	.....	.....	3,334
	Total		.....	6	51,714	1	.....	2	16,170	22,550	21	10,734	.....	.....	.....	.....	101,198
18	Kánara	{ Kharif	1,862	.....	179,515	.....	.....	363	.....	6,721	77	292	.....	.....	.....	.....	188,830
		{ Rabi	12,717
	Total		1,862	.....	192,232	.....	.....	363	.....	6,721	77	292	.....	.....	.....	.....	201,547
Total		{ Kharif	3,078,221	4,776,232	1,636,559	935	26	161,501	250,389	5,62,592	180,223	3,09,047	50,580	14,342	1,020	12,095	11,013,671
		{ Rabi	4,827,466	624	16,220	1,408,312	42,501	7,704	.....	480	10,141	1,341	6	14	270	1,323	6,316,492
Grand Total			7,905,687	4,776,856	1,653,089	1,409,247	42,527	169,205	250,388	563,072	190,364	310,388	50,586	14,356	1,890	13,418	17,330,073

ACCOMPANIMENT B TO AGRICULTURAL RETURN No. III—continued.
 Details of Kharif and Rabi under Cereals and Pulses, 1897-98.

No.	District.	CLASS II—PULSES.														Total, Pulses.
		Tur. Cajanus indicus.	Gram. Cicer arietinum.	Mug. Phaseolus mungo.	Ujid. P. radiatus.	Math. P. aconitifolius.	-Vaj. Dolichos lablab.	Chavli. D. catiangu.	Kulith. D. uniflorus.	Vátánc. Pisum sativum.	Masur. Ervum lens.	Lákh (Lágh). Lathyrus sativus.	Guvár. Cyamopsis psoraleodes.	Others.		
1	2	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
	<i>I.—Gujarát.</i>															Acres.
1	Ahmedabad ...	{ Kharif ... 4,217 Rabi ... 1,959	..... 22,689	22,561	8,034	47,570	159	1,467	5,189 2	... .....	... .....	..... .....	8,100 .....	... .....	97,207 24,650
	Total ...	6,176	22,689	22,561	8,034	47,570	159	1,467	5,191	...	...	...	8,100	...	121,947
2	Kaira ...	{ Kharif ... 23,432 Rabi ... 95	..... 11,728	4,011	1,429 1	21,213	1,560 616	4,688 .....	..... .....	... .....	... .....	..... .....	10,975 1	... .....	67,308 12,441
	Total ...	23,527	11,728	4,011	1,430	21,213	2,176	4,688	...	...	...	...	10,978	...	79,749
3	Panch Maháls ...	{ Kharif ... 6,903 Rabi ... 198	..... 53,564	3,184	6,261	3,793	10 44	667	26 .....	... 1,151	... 1	..... .....	1,059 .....	... .....	21,903 54,958
	Total ..	7,101	53,564	3,184	6,261	3,793	54	667	26	1,151	1	...	1,059	...	76,861	
4	Broach ...	{ Kharif ... 3,929 Rabi ... 9,560	..... 2,273	518	5	2,785	851 166	356 .....	..... .....	... 373	... .....	..... 39,933	1,208 .....	... .....	9,632 52,305
	Total ...	13,489	2,273	518	5	2,785	1,017	356	...	373	...	39,933	1,208	...	61,957	
5	Surat ...	{ Kharif ... 24,387 Rabi ... 1,526	..... 1,373	4,381 160	3,565	262	1,405 45,350	1,228 .....	..... .....	... 2,780	... 36	..... 3,041	1,766 .....	... .....	36,994 54,266
	Total ...	25,913	1,373	4,541	3,565	262	46,755	1,228	...	2,780	36	3,041	1,766	...	91,260	
	<i>II.—Deccan.</i>															
6	Khándesh ...	{ Kharif ... 68,432 Rabi ... ..	..... 37,204	26,416	95,247	21,586	360	2,097	80,521 .....	... 1,763	... 313	..... 50	..... .....	... .....	294,659 39,320
	Total ...	68,432	37,204	26,416	95,247	21,586	360	2,097	80,521	1,763	313	50	...	...	333,989
7	Násik ...	{ Kharif ... 31,142 Rabi ... ..	..... 58,407	10,869	25,417	15,036	134	120	85,225 .....	... 2,300	... 7,557	..... 4,728	..... .....	... .....	167,943 72,992
	Total ...	31,142	58,407	10,869	25,417	15,036	134	120	85,225	2,300	7,557	4,728	...	...	240,935
8	Ahmednagar ...	{ Kharif ... 48,130 Rabi ... ..	..... 75,696	26,649	3,345	50,309	611 162	610	52,337	1 776	2 555	..... 52	..... .....	... .....	181,994 77,241
	Total ...	48,130	75,696	26,649	3,345	50,309	773	610	52,337	777	557	52	...	...	259,235
9	Poona ...	{ Kharif ... 25,602 Rabi ... ..	..... 64,065	6,319	8,468	26,649	2,510 712	600	37,074	149 1,434	... 1,009	..... .....	..... .....	... .....	107,371 67,220
	Total ...	25,602	64,065	6,319	8,468	26,649	3,222	600	37,074	1,583	1,009	...	...	...	107,371 67,220

10	Sholápur	...	{	Kharif	...	83,389	.....	8,784	2,059	27,504	78	78	10,339	...	...	...	...	132,231	
			Rabi	...	.....	45,780	.....	.....	.....	639	4	...	...	...	61	135	208	.....	46,827
			Total	...	83,389	45,780	8,784	2,059	27,504	717	82	10,339	61	135	208	...	...	179,058	
11	Sátára	...	{	Kharif	...	58,975	.....	15,217	40,853	46,320	3,649	631	60,806	...	...	...	...	114	226,571
			Rabi	...	.....	60,954	.....	.....	.....	181	...	...	1,201	604	.....	.....	.....	...	62,940
			Total	...	58,975	60,954	15,217	40,853	46,320	3,830	631	60,806	1,201	604	...	...	114	289,511	
<i>III.—Karnatak.</i>																			
12	Belgaum	...	{	Kharif	...	78,796	.....	15,717	12,238	10,371	1,844	2,396	59,384	...	...	...	...	...	180,746
			Rabi	...	.....	45,546	.....	231	.....	.....	7,114	3	573	5,073	4,718	.....	.....	.....	63,568
			Total	...	79,106	45,546	15,948	12,238	10,371	8,958	2,399	59,957	5,073	4,718	...	...	...	...	244,314
13	Bijápur	...	{	Kharif	...	78,464	3,932	19,349	.....	8,170	3,945	2,685	22,086	...	...	...	...	...	138,631
			Rabi	...	.....	46,092	.....	.....	.....	537	...	...	...	40	1	.....	.....	.....	46,670
			Total	...	78,464	50,024	19,349	...	8,170	4,482	2,685	22,086	40	1	...	...	...	...	185,301
14	Dhárwár	...	{	Kharif	...	60,208	421	47,289	7,678	14,209	3,743	1,120	54,120	1	...	...	...	...	197,789
			Rabi	...	.....	57,587	9,532	1,413	.....	4,417	4	7,474	426	60	.....	.....	.....	...	80,913
			Total	...	60,208	58,008	56,821	9,091	14,209	8,160	1,124	61,594	427	60	...	...	...	...	278,702
<i>IV.—Konkan.</i>																			
15	Thána	...	{	Kharif	...	4,451	726	27	15,735	.....	379	3,544	712	...	...	.....	...	...	25,574
			Rabi	...	.....	977	303	.....	.....	1,803	100	...	95	...	71	.....	.....	...	8,816
			Total	...	4,918	1,703	330	15,735	...	2,182	3,644	712	95	...	71	...	...	...	29,390
16	Kolába	...	{	Kharif	...	604	.....	20	6,582	.....	.....	2	37	...	...	.....	.....	...	7,245
			Rabi	...	.....	1,897	2,045	1,450	.....	8,190	112	...	...	...	...	.....	.....	...	15,739
			Total	...	2,649	1,897	2,065	8,032	...	8,190	114	37	...	...	...	...	...	...	22,984
17	Ratnágiri	...	{	Kharif	...	179	.....	87	1,812	.....	764	81	6,845	...	...	.....	.....	19	9,770
			Rabi	...	.....	16	82	881	.....	703	82	1,468	...	...	.....	.....	.....	402	3,224
			Total	...	269	16	169	2,223	...	1,467	116	8,313	...	...	...	...	421	12,994	
18	Kánara	...	{	Kharif	...	186	280	47	370	.....	430	63	1,883	304	1	.....	.....	...	3,469
			Rabi	...	.....	11	1,051	1,401	.....	11	831	240	...	...	.....	.....	...	3,595	
			Total	...	186	291	1,098	1,671	...	441	944	2,128	304	1	...	...	...	7,064	
Total		{	Kharif	...	610,426	5,359	211,445	239,034	295,777	22,432	22,366	476,599	455	3	...	23,108	133	1,907,147	
		Rabi	...	16,250	585,859	13,404	4,646	.....	70,645	1,186	9,757	17,473	14,989	48,083	1	402	752,695		
Grand Total		...	626,676	591,218	224,849	243,680	295,777	93,077	23,572	486,346	17,928	14,992	48,083	23,109	535	2,659,842			

Annual Return of Retail Prices of staple Food-grains and other important Articles

Note.—The prices represent the annual average prices calculated from the

No.	Station.	Prices (in Rs. a. p.) per Indian Maund										
		Jowári.	Bájrí.	Wheat.	Rice in husk.	Clean rice. 2nd sort.	Náchní.	Gram.	Tur dal. 2nd sort.	Linseed.	Ground-nut (in husk).	Til.
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
1	Bombay ...	4 4 4	4 8 7	5 15 11	3 4 0	4 12 3	4 2 7	5 1 8	5 13 8	5 14 9	5 11 3	6 14 10
2	Ahmedabad ..	3 15 10	4 0 9	5 8 1	3 5 1	5 3 7	3 8 5	4 4 5	5 3 11	5 3 0	6 13 5	6 1 7
3	Kaira ...	4 0 11	4 3 11	4 12 10	3 3 10	5 0 10	3 11 7	4 10 0	4 15 2	5 1 8	...	6 2 11
4	Godhra ...	...	4 2 11	4 13 5	2 10 0	4 5 7	3 2 0	3 15 4	5 0 3	...	4 12 6	4 11 9
5	Bronch ...	4 1 1	4 8 3	4 13 1	3 3 7	4 12 11	...	4 14 3	5 3 5	9 5 11	6 6 6	6 8 10
6	Surat ...	4 9 5	4 11 2	5 15 5	3 7 5	6 1 8	...	5 8 0	5 13 0	6 1 1	6 1 2	8 0 4
7	Dhulia ...	4 5 6	4 10 10	5 7 3	...	5 9 11	...	5 6 4	5 14 11	4 3 8	2 10 7	6 5 3
8	Násik...	4 3 5	4 12 3	5 3 11	...	5 7 10	3 15 1	4 15 11	5 12 0	...	3 1 10	...
9	Málegaon ...	4 11 4	4 7 5	5 9 3	...	5 7 10	...	5 5 6	6 2 1	...	...	6 2 1
10	Ahmednagar ...	4 8 0	4 12 0	5 8 10	...	5 13 6	...	5 1 4	5 6 9	5 10 1	3 10 10	7 10 3
11	Poona ...	4 4 4	4 12 9	5 11 3	3 13 5	5 4 4	3 6 10	5 2 7	5 12 3	6 0 8	4 2 9	10 1 1
12	Sirur ...	4 10 9	5 5 8	5 15 0	...	5 15 6	...	5 2 6	5 6 6	5 13 8	...	...
13	Purandhar ...	4 5 5	5 0 1	5 12 6	...	5 2 2	3 4 4	5 2 6	5 8 2	...	3 9 3	...
14	Sholápur ...	4 0 1	4 7 8	5 11 1	...	4 12 8	...	5 3 11	4 10 9	4 4 9	...	6 8 6
15	Sátára ...	4 13 1	5 3 2	5 12 7	...	5 11 8	...	5 11 2	6 0 2	...	7 5 0	8 12 3
16	Belgaum ...	3 7 10	4 1 7	5 6 2	3 0 5	4 4 9	2 7 4	4 15 5	5 8 4	5 1 5	...	5 5 9
17	Bijápur ...	3 12 5	4 6 3	5 9 11	...	4 9 6	2 11 11	5 4 3	5 9 2	6 2 7	...	9 5 6
18	Dhárwár ...	3 4 5	3 13 1	5 1 9	2 11 9	4 4 0	...	4 12 2	5 10 5	5 0 5	...	6 6 2
19	Thána... ..	...	4 7 0	5 13 4	2 13 5	4 12 3	...	4 13 7	5 11 1	5 11 4	...	7 12 1
20	Alibág ...	...	5 7 8	6 15 11	...	3 15 3	...	5 12 6	6 14 4	...	7 12 7	8 1 9
21	Ratnágiri ...	4 15 3	5 7 3	6 6 3	2 12 0	4 7 6	3 14 7	5 1 11	6 11 7	...	...	...
22	Kárwár ...	4 3 0	...	6 10 8	...	4 14 0	3 3 5	5 10 10	6 10 6	16 4 4	6 0 1	7 14 7
23	Karáchi ...	3 8 10	4 2 10	4 9 9	...	5 3 0	...	4 9 3	6 5 10	7 2 4	6 11 4	6 8 8
24	Hyderabad ...	3 7 0	3 11 2	4 10 11	...	4 15 3	...	4 13 11	6 15 6	6 12 1	7 6 4	6 4 10
25	Sakkur ...	3 1 7	3 7 4	4 2 0	...	4 14 7	...	4 4 9	6 1 6	5 4 6	8 1 5	6 6 9
26	Umarkot ...	3 12 6	3 0 1	4 9 5	1 9 8	2 12 8	...	6 13 10	...	...	7 11 3	5 4 9
27	Jacobabad ...	2 15 0	3 7 3	4 5 5	2 8 2	4 10 3	...	4 2 8	7 7 10	6 10 8	7 15 0	5 9 0
28	Kolhápur ...	3 14 4	4 3 0	5 11 10	3 1 3	4 7 0	2 12 7	4 13 11	6 4 1	...	4 15 11	9 2 9
29	Baroda ...	4 3 2	4 13 5	6 2 0	...	5 10 7	4 1 1	5 3 8	5 11 11	11 6 10	7 11 6	...
30	Rájkot ...	4 1 4	4 6 0	4 10 11	3 14 10	6 1 11	...	4 13 5	6 8 4	7 13 3	7 14 10	8 2 4
31	Bhuj ...	3 9 8	3 13 3	5 10 9	...	7 3 7	...	6 1 11	8 3 7	12 0 2	8 2 9	8 0 11
32	Deesa ...	3 2 8	3 6 2	4 0 11	...	5 13 1	...	4 3 5	5 2 1	6 3 8	6 10 8	5 6 9

in the Bombay Presidency for the calendar year 1897.

Monthly returns of retail prices published in the Government Gazette.

1 ser = 40 sers, 1 ser = 80 tolas.

Castor seed.		Ghee, 2nd sort.		Jagri.		Fire-wood.		Tobacco.		Clean cotton.		Salt, 2nd sort.		Dry grass.		Jowári straw.		Bájlí straw.		Nico straw.		Station.	No.
Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.		
9 8 5	32 13 9	7 12 1	0 8 1	28 9 2	17 9 4	3 7 1	1 0 8	...	...	0 11 11	Dombay	...	1								
5 4 6	30 8 1	9 2 7	0 8 0	13 4 8	17 2 8	2 15 5	0 9 10	1 2 0	1 2 11	...	Ahmedabad	...	2										
5 2 10	27 7 0	7 6 8	0 6 0	...	16 0 0	3 5 0	...	...	...	...	Kaira	...	3						
4 12 7	26 13 11	7 4 0	0 4 0	8 0 7	...	3 5 4	0 10 5	...	...	...	Godhra	...	4							
5 2 1	34 1 2	7 11 4	0 7 0	10 12 1	16 0 0	3 1 8	1 12 0	1 5 4	...	...	Bronch	...	5								
5 8 6	41 6 7	7 14 6	0 7 9	16 14 5	19 13 3	3 4 5	2 2 4	1 1 2	...	...	Surat	...	6								
...	30 7 2	7 9 4	0 6 0	14 6 8	15 12 0	3 14 6	1 9 4	...	...	...	Dhulia	...	7							
...	30 10 7	7 0 5	0 4 4	16 8 10	...	4 2 5	1 0 0	...	...	...	Náeik	...	8							
...	34 5 11	8 3 5	0 8 0	13 5 4	13 5 4	3 12 1	1 8 6	1 4 6	...	...	Málegaon	...	9								
...	35 1 4	8 4 5	0 7 5	15 0 1	18 6 8	3 6 8	...	3 6 4	...	...	Ahmednagar	...	10								
3 4	32 7 5	7 0 8	0 7 11	14 13 4	...	3 10 10	1 5 11	1 4 10	...	1 2 7	Poona	...	11										
...	30 12 4	6 15 2	0 8 0	10 0 0	...	3 10 8	...	2 3 7	...	...	Sinur	...	12								
...	30 11 8	6 10 4	0 6 4	11 14 8	...	3 8 2	0 15 6	0 11 1	...	...	Purandhar	...	13								
...	34 2 9	7 9 6	0 7 11	18 15 9	16 12 11	3 11 8	1 15 6	2 0 11	...	...	Sholápur	...	14								
...	33 9 5	6 8 2	0 6 8	17 5 6	21 0 10	3 11 5	0 15 3	1 11 3	...	...	Sátára	...	15								
5 10 10	30 14 2	6 6 6	0 6 7	13 15 2	21 15 9	3 12 4	0 13 11	0 7 4	...	0 7 10	Belgaam	...	16										
...	38 1 1	7 0 11	0 8 3	13 5 4	16 0 8	3 12 7	1 5 9	2 4 5	...	...	Bijápur	...	17								
5 2 5	30 14 6	7 4 8	0 6 5	16 0 0	...	3 7 2	0 12 10	0 7 8	...	...	Dhárwár	...	18								
...	33 2 11	7 10 4	0 7 2	10 0 0	...	3 4 3	...	...	...	...	Thána	...	19						
...	38 1 6	8 14 5	0 6 6	14 4 7	...	3 8 9	...	...	...	...	Alibág	...	20						
...	39 9 8	7 12 8	0 8 7	18 9 6	...	3 5 2	0 6 8	...	...	...	Ratnágiri	...	21							
...	40*10 11	9 2 9	0 2 0	21 0 10	...	3 10 10	...	...	...	0 13 1	Kárwár	...	22							
4 3 2	33 4 2	8 8 4	0 7 3	13 5 6	16 9 10	2 13 6	0 8 2	0 8 4	...	...	Karáchi	...	23								
3 14 1	35 11 5	6 5 4	0 5 0	10 7 7	15 10 0	3 7 7	...	0 7 11	0 5 2	...	Hyderabad	...	24										
4 12 1	32 11 0	5 2 5	0 5 2	10 0 0	13 7 9	3 5 8	...	0 5 3	...	...	Sukkur	...	25								
...	32* 4 1	6 8 3	0 3 8	18 10 3	13 0 4	3 5 4	...	...	...	...	Umarkot	...	26						
...	33 9 0	6 5 0	0 4 2	...	16 0 0	3 12 6	...	0 4 8	...	...	Jacohabad	...	27								
...	26 2 2	6 0 4	0 5 11	13 0 6	16 1 9	3 15 7	1 5 0	0 11 1	...	...	Kolhápúr	...	28								
...	33 12 0	9 8 2	0 8 0	13 5 4	...	3 7 8	0 11 4	...	...	...	Baroda	...	29							
...	34 5 11	8 6 6	0 8 6	17 9 11	16 9 0	0 9 8	0 7 7	...	...	...	Rájkot	...	30							
5 0 6	37 7 9	10 8 4	0 7 10	19 15 9	17 0 11	0 7 11	0 11 4	0 12 4	...	...	Bhuj	...	31								
4 10 1	24 12 9	8 2 2	0 5 5	13 5 4	22 0 0	3 7 11	0 5 10	0 8 11	...	...	Deesa	...	32								

* 1st sort: 2nd sort not sold.