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REPORT

ON

INDIAN WHEAT

BY

DR. FORBES WATSON.

Presented to both Houses of Parliament by Command of Her Majesty.



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VALUATION OF THE SAMPLES.

BENGAL.-LOWER PROVINCES.

Presidency Division : Nuddea district	-	-	,	-	Page. 26	Rajshahye Division : Moorshedabad district	-	~	-	27
Burdwan Division :						Rajshahye "	-	-	-	27
Beerbhoom district Burdwan	-	~	•	~	26	Bhagulpore Division : Bhagulpore district	-	-	-	27
Hooghly ,	-	-		-	$\frac{26}{26}$	Monghyr "	-	-		28
Orissa Division :						Maldah ", Purneah ",	-	-		$\frac{28}{29}$
Balasore district					27	Sonthal Pergunnahs				29

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NORTH-WEST PROVINCES AND OUDE.

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Benares Division :				,	Jhansi Division :				
Azimgarh district	-	-	-	31	Jalaun district -	-	-	-	38
n Ť	-	-	-	31	Jhansi " -	-	-	-	38
Daut:		_	-	31	Lallitpur " -	-	-		39
(1) to	_	_	-	31	-				06
	-	-		32	Agra Division :				
Gorakhpur "		-	-	32	Agra district	-	-	· 	39
Mirzapur "	-	-	-	04	Etawah " -	-	-	-	39
Allahabad Division :					Etah "-	-	-	-	40
Allahabad district	-	-	-	32	Furruckabad " -	-	-	-	40
Banda "	-	-	. -	32	Marthan	-	-	-	41
Cawnpore "	•	-	-	33	Mainpoori " -	-	-	-	41
Futtehpore "	-	-	-	33	-				••
Jounpore "	-	-	-,	34	Rohilkund Division:				
Roy Bareilly Division :		x			Bareilly district	-	-	-	42
Pratabgarh district	-	-	•	34	Budaon "	-	-	-	42
Roy Bareilly "	-	-	-	34	Mooradabad "	-	-	-	43
Sultanpur "	-	-	-	34	Shahjehanpur "	•	*	-	43
Fyzabad Division :					Kamaon Division :				
Bharaich district		-	-	35					43
77	-	_	_	35	Gurwhal district	-	-	-	
	-	-	-	36	Kumaon "	-	-	-	43
Gonda "	-	-	-	00	Meerut Division :				
Lucknow Division :				36	Aligurh district	-	-	-	43
Barabanki district	-	-	-		Thulling Andrahan	_	-	-	44
Lucknow "	-	-	-	36	Dahara Dahara		-	_	44
Unao "	-	-	-	37		-	-	-	45
Sitapur Division :				~	Meerut "	-	-	-	45
Hardui district	-	-	~	37	Muzaffarnuggur "	-	-	-	
Kheri "	-	-	-	38	Saharunpore "	•	•	-	46
Sitapur "	-	-	-	38	Ajmere and Mhairwarra	-	-	•	46
-									
			Ŧ	UNJA	AB.				
•	,		-	01.0					
Delhi Division :					Lahore Division :				
Delhi district -	-	-	-	46	Ferozepore district	•	-	•	49
Gurgaon " -	-	-	-	46	Gujranwalla "	-	-	-	49
TT - 1	_	_	-	$\tilde{46}$	Lahore "	-	-	-	49
			•		Mooltan Division :				
Hissar Division:					Jhang district	-	-	-	49
Hissar district -	-	-	-	46	Montgomery "	-	-	-	49
Rohtak " -	-	-	-	47	Mooltan "	-	-	-	49
Sirsa " -	-	-	-	47	Muzaffargarh "	-	-	-	49
Umballa Division :					Rawulpindee Division :				
Umballa district		-		47	Gujerat district	-	-	-	50
	-	-	_	47	Jhelum "	-	-	-	50
Loodiana "	-	-	-	47	Rawulpindee "	_	-	-	50
Simla "	-	-	-	*1	Shahmun	-	-	-	50
Jullundur Division :					Shahpur "	-			
Hoshiarpur district	-	-	-	48	Peshawur Division :			_	50 ·
Terller Jun	-	-	-	4 8	Hazara district -	-	-	_	50
V am arma	-	-	-	48	Kohat " -	-	-	_	$51^{}$
					Peshawur "		-	-	91
Umritsur Division :					Derajat Division :			-	51
Umritsur district	-	-	-	48	Bannu district	-	-	-	51 51
Gurdaspur "	7	-	-	48	Dera Ghazi Khan	-	-	-	51 51
Sialkot "	-	-	-	49	Dera Ismail Khan	-	-	-	51
					•				
		· F	SOMB.	AY P	RESIDENCY				
		-		-					
Sind:					Thur and Parkur distric	et 🛛	-	-	53
Hadamhad district				51	Upper Sind Frontier	-	-	-	53

Sind :Thur and Parkur district--53Hyderabad district---51Upper Sind Frontier---53Kurrachee,---52Native States in Guzerat---55Shikarpur,---53Districts of Bhownuggur State--55

Northern Divisi	on:				1	Southern Divisi	ion:				
Ahmedabad d			-	-	56	Ahmednuggu	district	-	-	-	59
Broach	,,	-	-	-	56	Belgaum	"	-	*	-	59
Kaira	,,	-	••	-	56	Dharwar	"	-	•		59
Khandesh	"	-	-	-	57	Kaladgi	**	-	-		60
$\mathbf{Nassick}$,,	-	-	-	58	Poona	"	-	-	-	60
Punch Mehals	-	-	-	-	58	Satara	,,	-	**		61
Surat district	-	-	-	-	58	Sholapur	"	-	-	-	61
Thana "	-	-	-	-	58						

CENTRAL PROVINCES.

Nerbudda Division: Baitul district - Chindwarra " Hoshangabad " Nimar " Nursingpore " Jubbulpore Division: Damoh district - Jubbulpore " Mandla " Saugor "	-	-	$\begin{array}{rrrrr} - & 61 \\ - & 61 \\ - & 61 \\ - & 61 \\ - & 62 \\ - & 62 \\ - & 62 \\ - & 62 \\ - & 62 \\ - & 62 \\ - & 62 \end{array}$	Raipore " Nagpore Division : Balaghat district Bhandara " Chanda " Nagpore " Wurdha "	-	-	- - -	$egin{array}{c} 63 \\ 63 \\ 63 \\ 63 \\ 64 \\ 64 \\ 64 \\ 64 \end{array}$
Saugor " Seoni "	-	-	- 63					

BERAR.

East Berar: Oomraottee district Ellichpur " Woon "	-	-	- 64 - 65 - 65	West Berar : Akola district Buldana ,, Bassim ,,	-	- -	-	- 65 - 66 - 66
		M	ADRAS PRESI	DENCY.				
Bellary district -	-	-	- 66	Kistna district	-	-	-	- 67
Coimbatore " -	-	-	- 67	Nilgherry "	-	-	-	- 67
Cuddapah " -	- .	-	- 67	Tinnevelly "	-	-	-	- 67
Kurnool " -	-		- 67	•		,		
Mysore	-	-	- 67	Burma' -	-	•	-	- 68

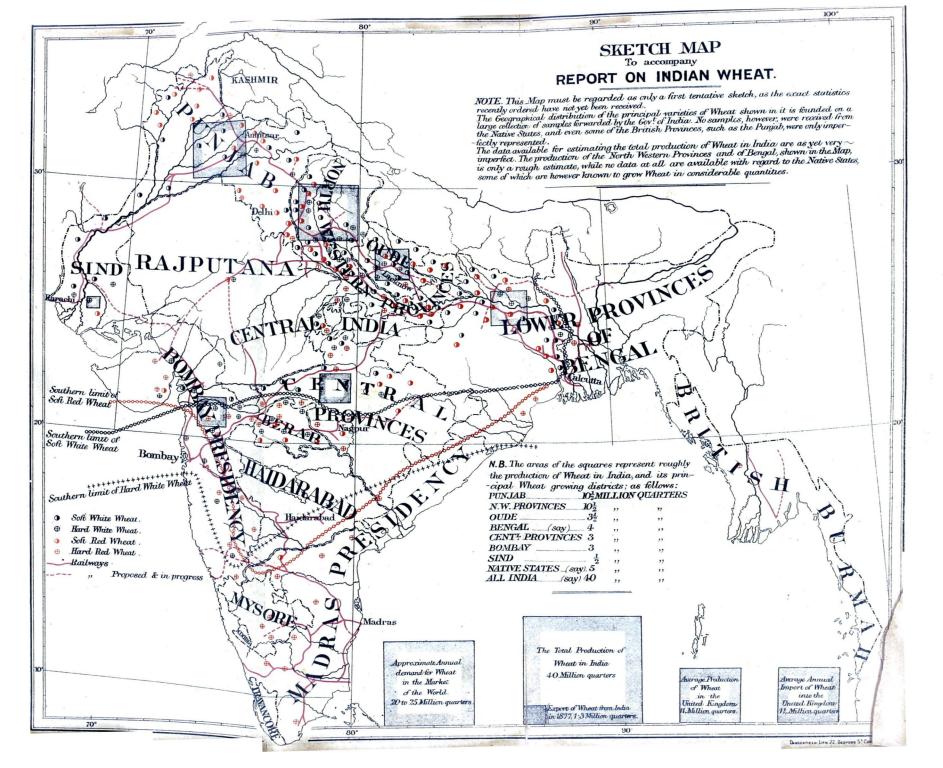
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BY

DR. FORBES WATSON.

INTRODUCTION.

In submitting the subjoined Report on the samples of Indian wheat forwarded to this Office in accordance with the Resolution of the Government of India of the 14th March 1877, I would take the opportunity of pointing out a few of the principal results of the examination, together with their bearing upon the question of the supply of Indian wheat for the European market. The Resolution referred to directs the collection of detailed statistics and other local information on the subject of the cultivation of wheat, but the results have not yet been received, and the Report has accordingly been restricted to the examination of the question, mainly, by the light of the evidence afforded by the samples themselves. The subject derives at the present time an Bearing of unusual importance from the obvious consideration that the depreciation of silver, the wheat which affects so injuriously the finances of India, can be best counteracted by a development of the Indian export trade. Until, however, the information now in course of collection has been received, the question of the production and export of wheat from India cannot be treated with the amount of statistical detail which it deserves, as the materials available in the usual administration reports are of a fragmentary and incomplete description. At the same time it will be found that the examination of the large collection of samples under report has of itself led to some conclusions which may have an important bearing on the future of the Indian wheattrade.

2. The number of samples amounted to more than 1,000, and together they form by Report, map, far the most complete collection of Indian wheat ever brought to this country. The synoptical valuations of the individual samples are given in the tabular statements at pp. 26 table of et seq., whilst the section commencing at p. 11 will be found to contain a number typical col-of special observations referring to them. For the present purpose it will be sufficient lection of to refer to the summary Table at p. 9, which presents a synopsis of all the chief specimens. results and indicates the number of samples of each resister of the basis of the summary for the sum of the s results, and indicates the number of samples of each variety of wheat received from the different provinces of India, as well as their quality, range of price, and average value. A map is also appended, showing the geographical distribution of the chief varieties, and the Report is accompanied by a collection of samples, illustrative of the more important kinds of wheat grown in India.

export on the silver question.

results of the

3. By arranging all the samples, according to price, in classes corresponding to the Principal usual classification of soft white wheats, the following result is obtained :--

usual classification of soft v	vinte wi	neats	s, the 1011	owing rest	ut is obta	unea :—		valuations.
				- Nu	mber of Samp	les.	•	
			Soft white.	Hard white.	Soft red.	Hard red.	Total.	- -
Superior samples, 44s. to 48s. p	er quarte 496 lbs		101				101	•••• ·
Grade No. 1., 41s. 6d. to 43s. 6d. Grade No. 2., 39s. 6d. to 41s.	1)))	-	123 73	13 83	10 56	-	146 212	
Ordinary, 37s. to 39s. Inferior, below 37s.	>7 73	-	51 9	61 10	74 20	68 75	254 114	
Total No. of samples -	-	•	357	167	160	143	827	**

It will be seen that wheats equal or superior in value to grades numbers 1 and 2 of white wheat form the greater portion of the collection, numbering in fact 459 L 884. Wt. P 149. А

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d.

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d,

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39

d.

38 5 d.

1

36

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8

39

Average price per quarter -

samples, against 368 ordinary and inferior samples; moreover, out of a total of 827 samples, 101 must be described as being of a very superior quality, whilst only 114 samples are decidedly inferior.

4. The surprisingly favourable character of these results will be clearly perceived on of the prices realised by comparing the prices assigned to the Indian samples with the quotations current at the time of valuation for the different kinds of wheat in the London market, viz .:samples with

	per quarter of	
Danzig	^ 496 lbs.	42s. to 46s.
Australian	**	47s. to 48s.
Californian and Oregon	22	44s. to 45s.
White American and Ca	nadian "	42s. to 46s.
No. 1 Milwaukee	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	42s. to 43s.
No. 2 ,,	33	40s. to $41s.$
No. 2 Spring	, ,,	38s. to $40s.$
No. 3 ,	>>	36s. to 37s.

No higher quotations than those realized by numbers of Indian samples appear in this list, the highest being the quotation for Australian wheat at 47s. to 48s. per quarter, a price which has been realized by a certain number of the best Indian samples. It will be likewise seen that the most numerous classes in the Indian collection are those which correspond in value with the better kinds of American wheat quoted in the list.

Comparison with current quotations of Énglish wheat.

India admi-

for the growth of the finest

Comparison

the Indian

the current quotations of foreign wheats.

> 5. The valuations of the Indian wheats compare even more favourably with the prices of English wheat. At the time of valuation the quotations for new English white were from 30s. to 45s. per quarter (of 480 lbs.), and for new English red from 30s. to 41s. per quarter, while the average weekly rate throughout the United Kingdom was only 38s. per quarter. It will be seen that the Indian collection contains numbers of samples exceeding in value the highest of these quotations, while the average for the whole collection amounts to 39s. 8d. per quarter, or to nearly 2s. above the average of the United Kingdom. It must, however, be explained that the last English crop was one of exceptionally poor quality, as shown by the fact that at the date of the valuations (beginning of February 1879), the bulk of the English wheats were almost unsaleable at Mark Lane in consequence of their poor condition.

6. The above facts conclusively show that India is well adapted for the growth of wheat of the finest quality. It must be, however, kept in mind that a considerable number of the samples sent from India were far superior to any Indian wheat usually rably suited seen in the London market, and that without more local information than we now qualities of possess it is not possible to decide whether these fine varieties could at present be forthcoming in quantities sufficient for the development of an important trade. In fact, Messrs. Finlay, Scott, & Co. state, in a letter printed among the enclosures to the both soft and hard wheat. despatch from the Government of India on the subject, that on the Bombay side the supply of the best qualities is very limited, as compared with the common qualities, and that the prices of the fine wheats are so well kept up in India itself that more profit is to be obtained on the shipment of inferior than of fine wheat. Be this, however, as it may, one result is clearly apparent from the mere inspection of the samples, and that is that the cultivation of the finest wheat cannot be considered as anything exceptional, but that it is spread over a considerable portion of the country. If samples like those mentioned in the valuations as being equal to the finest Australian or Californian had only been sent from a few places their occurrence might have been explained as due to unusually favourable conditions which do not apply to the country at large. But samples of equal or only slightly inferior value were sent from district after district. It is not from one nor half-a-dozen places that the best samples were received, but probably from more than 100 different localities. More than 60 districts sent one or more samples of soft white wheat reported as superior to No. 1, and valued at from 44s. to 48s. These 60 districts include the greater portion of Behar, the North-West Provinces, Oude, and the Central Provinces; and it is probable that but for the weevilled condition in which most of their samples were received, the same might have been said of the Punjab and Sind. In addition, perhaps a dozen more districts in Bengal, Bombay, and Berar may be counted, which though not producing soft white of a similarly high character, yet grow a hard white wheat equal to the finest wheat of the same kind grown anywhere. The provinces above mentioned include the whole of the wheat-growing area proper in India; Madras, Mysore, and

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Burma are evidently but little adapted for the cultivation of wheat, the few samples received from them being mostly very inferior in quality. We thus arrive at the important conclusion that throughout the wheat-growing part of India the cultivation of the finest varieties is well understood and extensively practised. This is a most important fact, bearing not only on the development of the wheat trade, but also on agricultural progress in India generally, for it indicates the existence of a much higher agricultural skill than India has usually been credited with. We often hear of the ignorance of the Indian ryots, and of their careless and shiftless modes of cultivation. But a glance at the collection of Indian wheats under report proves that there must exist all over India a numerous class of agriculturalists to whom such a reproach cannot apply. It is impossible to avoid the conclusion that the ryots who grew those samples of soft wheat equal to the finest Australian, or of hard wheat equal to the finest Kubanka, must be as keenly alive to the advantages of selection of seed and of careful cultivation as the most intelligent English farmer; and our samples prove that such ryots are to be found in almost every wheat-growing district.

7. With regard to the prices assigned to the Indian samples, it is necessary to Observation remark that although they compare very favourably with the quotations of the various on the English and foreign wheats in the market, yet they afford a much smaller margin, as present low level of compared with the prices current in India, than has been the case in former years. prices. It must be observed, however, that the exceedingly low range of prices for wheat and cther grains now ruling in European markets seems quite exceptional, whilst the prices in India are unusually high. As pointed out in the "Economist" of the 1st of March of the current year, the price of wheat in England has only twice within the last 100 years fallen to the present level, viz., in 1835 and in 1851. Two causes have mainly contributed to bring about the present state of the market. The crops produced in America for two years in succession have been exceptionally heavy, while the existing financial depression and distrust combine to restrict the scale of commercial operations; so that, notwithstanding the cheapness of wheat, the stocks in England continue low, as the grain merchants cannot obtain from the banks the usual advances. (In India, on the contrary, the prices ruling in the chief producing districts are higher than in normal years, partly on account of the exhaustion of stocks by the recent famines, partly on account of the apprehensions excited by the unfavourable season in the North-West Provinces and in the Punjab. So far these causes have undoubtedly resulted in a very considerable diminution in the arrivals of Indian wheat in this market. >

8. But whatever may be the case, under such exceptional conditions as those now Comparison prevailing, all the facts point to the conclusion that, as regards wheat, India may of India with shortly become one of the chief sources of supply for the United Kingdom. It must other wheat-producing be borne in mind that India is one of the largest wheat-producing countries in the countries. world. The production of the United Kingdom amounts to only about 10,000,000 to 13,000,000 quarters per annum. Austro-Hungary, Italy, and Spain each produce about the same quantity. Germany produces from 15,000,000 to 18,000,000 quarters, and the two countries which produce the largest amounts are France and Russia, each producing from 30,000,000, to 35,000,000 quarters per annum. Both are surpassed by the United States, which produced during each of the past two years upwards of 45,000,000 quarters. (No complete statistics exist for India, but we know that the Punjab alone produces about as much as the United Kingdom, Oude about 3,500,000 quarters, the Central Provinces about 3,000,000, and Bombay not much less. The production in the North-West Provinces proper has never been estimated, but must be fully equal to that of the Punjab, and that of Behar is also known to be considerable. Thus the yearly production of the provinces under direct British rule will amount to from 30,000,000 to 35,000,000 quarters, or to the same quantity as that produced by Russia or France. But if the native States in the Punjab, Rajpootana, Malwa, Bundelkund, and Guzerat be added, in all of which wheat is largely cultivated, it will be found that India must be considered as being, next to the United States, the largest wheat-producing country in the world.

9. The prospect appears even more encouraging when viewed in connexion with The true the results already mentioned of the examination of the samples under report. Whilst policy for as regards cotton and some other produce, the soil and climate of India are rather at a India in as regards cotton and some other produce the soil and climate of India are rather at a the matter of disadvantage with those of other competing countries, as regards wheat India is wheat is to proved to be admirably adapted for the production of the finest qualities of both soft encourage and hard wheat. This is a circumstance of great importance, because the supply of the cultiva-

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tion of the finest varieties. the fine varieties is much more restricted than that of the commoner kinds. In considering the competition in the market of the world, France, although producing as much as Russia, may be left out of account, as its production, large though it be, barely suffices for its own consumption. Thus, practically, Russia and the United States are the chief competing countries to be considered. But in both countries the area for the production of fine full grown winter wheat is comparatively restricted. Spring wheat forms a very large proportion of the Russian supply, as the greater part of the country is too cold for the growth of winter wheat; in the United States likewise, the climate of Minnesota, Iowa, and the other States on the Canadian border, in which the cultivation of wheat has been recently so rapidly extending, is only adapted for the growth of spring wheat. This wheat, which is mostly red, is not only inferior in quality to a good winter wheat, but it produces also a much lighter crop, not more than 12 to 15 bushels per acre. Thus, however much the cultivation may extend in these parts, it is not likely to affect the supply of the finest varieties, such as are grown in some of the older States or in California.

The true policy for India, therefore, appears to consist in taking advantage of her climatic position, and cultivating for export only the finest varieties, in which the competition of Russia and the Far West in America is not likely to be as severe as in the case of the common varieties. Such a policy receives additional recommendation from the fact that the price of the finer varieties is always better kept up, and suffers less in a falling market than that of the common wheat. The higher priced wheat will likewise support better the necessarily high charges of transport and freight.

Causes of the inferior quality of the bulk of Indian shipments of wheat.

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10. The bulk of the Indian wheat as actually shipped to this country is, however, by no means of a high quality, as the good average Indian wheat chiefly known in this market only classes with grade No. 2. There is room for considerable improvement both in the quality of the grain itself, and as regards the condition in which it is sent to this market. The three principal causes which at present tend to depreciate Indian wheat $\operatorname{are}_{,--}(a)$ the mixture of different varieties of wheat, white and red, hard and soft in the same sample; (b) the admixture of other grain, such as barley, gram, rape, or linseed; and (c) the presence of foreign matters, such as chaff, earth, lumps of clay, and dirt of every description.

(a.) With regard to the mixture of different varieties of wheat, that of hard with soft wheat is the most objectionable, as also the most frequent. The mixture of soft red with soft white wheat depreciates the price to a certain extent, though many samples of such mixed wheat were highly reported on, but the presence of a considerable proportion of hard grain reduces the value materially.

(b.) The admixture of foreign grains reduces even more the value of the wheat. Many samples from the Punjab, Sind, and also occasionally from Bengal and the North-west Provinces, are so mixed with barley as to be quite unfit for milling, and the presence of smaller quantities of gram or oilseeds is frequently met with in samples coming from every province.

samples coming from every province. (c.) The third cause of depreciation—the presence of chaff, earth, and other extraneous matters—is likewise more noticeable than would be the case if the wheat trade were properly organised.

The existing causes of depreciation of Indian wheat easily removable. Excellent seed may be found in almost every wheat-growing district. Cheap winnowing and screening appliances. Advantages which would result from the introduction of

11. Fortunately no serious difficulties seem to stand in the way of effecting a great and rapid change in the character of the wheat exported from India. The quality of the grain itself depends mainly upon the care exercised in the selection of seed. The collection of samples here reported on proves, however, that in almost every district excellent qualities of wheat may be already found. There is therefore no question of acclimatising seed imported from England or other countries, but simply of extending the area of the fine varieties already cultivated, and if a regular demand for the better qualities should spring up, there is every probability that the mere extension of the cultivation already existing would be able to meet it. As regards the condition of the wheat, the considerable quantities of chaff and dirt of all kinds, the presence of which depreciates the Indian wheat on the average by at least 2s. 6d. per quarter, could be easily removed by the introduction of comparatively simple screening and winnowing machinery.

12. The measures so far suggested are all capable of easy execution, and attention to the points mentioned would contribute to improve materially the position of Indian wheat in the English market. But, in addition, the introduction of steam threshing machinery has recently been strongly recommended. No doubt, if such machinery

came to be extensively adopted in India, the benefit derived from its use would be threshing machines. considerable. In view, however, of the great cost and general unsuitability of such machines to the Indian system of farming, it is impossible to entertain the hope that they could ever be adopted for general use in India. But it cannot be doubted that in some of the principal exporting districts such machines might be used with the greatest advantage. In addition to the clean condition of the grain, a great saving would be effected in the time required for the preparation of the crop for the market and its shipment to this country. In this manner the ravages of the weevil, one of the greatest obstacles to the development of the Indian wheat trade, would be reduced to a minimum, and Indian wheat could be delivered in this country just at that period before the gathering of the English harvest when stocks are lowest, and prices at their highest. It may be mentioned that the introduction of steam threshing machinery into Russia, and quite recently into Egypt has resulted in a considerable improvement in the quality in the wheat sent from these two countries.

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13. The suggestions contained in the preceding paragraphs bear upon the measures Opening up required for developing in India the production of a better quality of wheat than of new marthat now principally exported. But of equal importance to the increase of the supply of good wheat in India are any measures which might lead to an increased demand The hard for the Indian wheats by the opening up of new markets. I may remark on this white wheat point, that in the opinion of the valuer to whom the samples were submitted, the most suitable Mediterranean would afford for some of the varieties a much better market than for Italy. England. This applies particularly to a fine, hard, white wheat grown in many parts of India. Many of the samples of this kind sent from Bengal, the North-west Provinces, but especially from Bombay, were equal to if not better than the finest Kubanka wheat, which is usually accepted as the type of the best wheat of this class. This kind of wheat is specially suited to the manufacture of macaroni, which is so important an industry in Genoa, Naples, and other places in Italy. Hard white wheat is on this account in great request there, and may be frequently disposed of at prices much in advance of the London quotations. The difference in favour of Italy may sometimes amount to as much as 5s. per quarter. As, moreover, the shipping charges from India to Italy will be lower than those to England, that country seems to be the natural outlet for this description of Indian wheat, which up to the present has not been sufficiently appreciated in England.

14. There is another point which has an important bearing on the demand for Increased Indian wheat. Its consumption in this country depends mainly upon its adaptability adaptability for the purposes of the miller. It must be kept in mind that the recent remarkable development of the export trade in Indian wheat was to a considerable extent influenced the purposes by the improvements effected in this country in the mode of grinding it. This de- of the Engvelopment was of course favoured by the opening of the Suez Canal, and by other lish miller. circumstances; but the principal cause was the discovery that by previous wetting Indian wheat is rendered perfectly suitable for grinding in the usual way, and also that an admixture of the dry Indian wheat with the English grain is very advantageous, especially after a wet harvest.

15. There is every reason to suppose that just as in the past changes or improve-Recent im-ments in the milling process have affected the demand for Indian wheat, so in the provements future further improvements may result in increasing the demand. The improve-machinery. ments which have been effected during the last few years in milling machinery are very considerable. In addition to the usual system of grinding the grain by means of millstones, two new methods have been prominently brought into notice. The one consists in crushing the wheat by passing it repeatedly between chilled iron rollers. This is the method now universally used in Hungary, and it produces the finest flour in the market. The superiority of the flour prepared in this way to that produced by the ordinary method is shown by the quotations, which, for instance, on the 10th of February last ranged between 41s. and 55s. per sack of 280 lbs. of Hungarian flour, whilst the highest price for town-made flour was only 40s. The third and most recent system consists in a combination of the grindstones with crushing cylinders. The grain is first broken up between grindstones so as to convert it into a kind of semolina or soojee, which is subsequently crushed between smooth porcelain cylinders.

16. I had occasion to inspect the two new systems here referred to at the recent Suggested Paris Exhibition, and I concur with the opinion which has been expressed in the experiments in order to

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ascertain capabilities of Indian wheat for the manufacture of the finest flour.

accompanying letter by Mr. Alexander Smith, of Cornhill, to whom I am indebted for the laborious series of valuations on which this Report is founded, as to the expediency of ascertaining by direct experiment the suitability of the Indian wheat for the production of the finest flour, with the aid of the new milling apparatus here referred to. Mr. Smith expresses his surprise at seeing so many specimens of really very fine wheats among the samples submitted to him. He says these extra fine wheats are unknown here, and that it would be of the utmost importance to get some of them converted into flour, and even into bread. He was particularly struck with the fine hard wheat, which he thinks is not sufficiently appreciated in this market, and he refers to some experiments undertaken some time ago, at his instance, with flour produced from the hard St. Petersburgh wheat, which yielded per sack of 280 lbs. 110 four-pound loaves of fine bread, whereas the best English wheat yields only 90 to 92 loaves. Some of the Indian samples of hard wheat are even finer than the best hard St. Petersburg or Kubanka wheat; and Mr. Smith is of opinion that the methods of milling recently introduced, in which the grindstones are replaced by crushing cylinders, will do away with the objection formerly entertained to the hard wheat on account of its being injurious to the grindstone.

For each milling experiment a quantity of about 20 quarters would be required : so that to test the three systems of milling now in use, 60 quarters, or about 350 maunds, of each variety of wheat would have to be procured. Mr. Smith suggests that the following sorts should be tried :

1st. Fine hard white.

2nd. Fine soft red. 3rd. Fine soft white.

4th. Good average soft white, No. 2.

Of these, the three sorts first mentioned are not obtainable in the London market. The quality last mentioned as "good average white, about No. 2," may, indeed, be purchased here, but it is often so much mixed and dirty that it would be preferable to have it likewise imported directly from India.

It may be pointed out that the greater portion of the expenditure on account of such experiments would be recovered from the sale of the resulting flour.

Districts from which samples suitable for the experiments could be most readily obtained.

17. It should not be difficult to procure the quantities required of the wheats named for the proposed experiments. The lists of the best samples of each of the different varieties, and their place of production, at pp. 19 to 23 of the Report, supply an indication of the places in which these varieties are obtainable. Although generally the best specimens of soft wheat are all produced north, and the best specimens of hard wheat south, of the Nerbudda, there are many districts in the North-West Provinces or in the Central Provinces in which all the four varieties required may be found together. The finest specimens of hard white wheat comes from the Khandesh district in the Bombay Presidency, but wheat almost equal to it is found in many parts of the North-West Provinces, and even as close to Calcutta as the Maldah district. The simplest way would be to entrust Mr. Buck, the Director of Agriculture of the North-West Provinces, with the duty of purchasing the necessary quantities, approaching as nearly as possible the quality of the samples Nos. 1 or 2, Nos. 4, 6, and 7, of the set of samples which accompany this Report, and the description of which is given in Appendix B., p. 10. The districts of Cawnpore, Bulundshahr, or Meerut appear the most suitable for such a purpose, as from each of them excellent samples of all four varieties have been received.

Request for a collection of fresh sam-ples from the Punjab.

18. I would take the same opportunity for suggesting that a fresh collection of samples should be forwarded from the Punjab. As pointed out on page 13 of the Report, the collection sent from that province would, in all probability, have scarcely done justice to it, even had it arrived uninjured. But by far the greater proportion of samples were either totally destroyed, or at least partially damaged by weevil. A of samples were either totally destroyed, or at least partially damaged by weevel. A number of most important wheat-growing districts are, in consequence, left unrepre-sented even by a single sample, and the whole province, containing 30 districts, and producing annually more than 10,000,000 quarters of wheat, or about as much as the whole United Kingdom, is only represented by 19 sound samples. From such scanty materials it is of course impossible to draw any reliable conclusions with regard to the character of the cultivation of wheat in the Punjab. Examples of the two extremes of Indian agriculture may be found there side by side. On the one hand, the specimen of soft white wheat sont from Delhi is the best sample in the whole collection and of soft white wheat sent from Delhi is the best sample in the whole collection, and several other samples are of equal excellence; on the other hand, there are a number

of samples, among the red wheats especially, which could only have been grown from seed apparently degenerated through a long course of neglect. As observed in the Report, the samples in question, in addition to foreign substances, contain a large proportion of grains of wheat of so stunted a growth and shrivelled appearance as to resemble rather grass-seed than a cultivated grain. The cultivation of such a degenerate wheat is the more astonishing, as, to judge by our samples, seed of first-rate quality seems to be produced in the same or adjoining districts, so that the remedy for the evil is close at hand. One remark may be made on this subject. If the collection presents a fair picture of the varieties cultivated in the Punjab, then it must be inferred that the cultivation of wheat in the Punjab proper, that is, the districts between the Indus and the Sutlej, is conducted with considerably less skill and care than in the neighbouring North-West Provinces. By far the greater number of the samples sent from the Punjab districts consist of red wheat, frequently of a very inferior quality; in fact, the proportion of inferior samples is greater in the Punjab collection than in that from any other province, Madras, Mysore, and Burma alone excepted, which can hardly be classed among the wheat-producing provinces. But on account of the incompleteness of the collection, it would be hazardous to draw any definite conclusions.

19. The uncertainty in which the question of the quality of the Punjab wheats is Punjab proleft is the more a matter of regret as that province seems capable of becoming the chief bably deswheat exporting district of India. As I had occasion recently to point out, there is no become the part of India in which, in proportion to the population, wheat is grown to the same chief wheat extent as in the Punjab, the acreage now under wheat amounting to more than exporting 6,000,000 acres, and being capable of rapid extension.

province of Îndia.

Hitherto the only railway available for the wheat coming from the Punjab has been the Punjab and Delhi and the East Indian line, so that the producing districts were at a distance of from 1,100 to 1,500 miles from the port (Calcutta).

By the Indus Valley Railway the distance to the port (Kurrachee) will only amount to from 600 to 1,000 miles. The reduction in the railway carriage will thus be considerable, amounting on the average to about 6s. per quarter. There will be a further saving of 2s. per quarter on the freight from Kurrachee to London as compared with the freight from Calcutta to London. The total saving effected by the Kurrachee route will thus amount to about 8s. per quarter, and the total expense of carriage and freight to London will be from 15s. to 20s. per quarter.* Considering that the price of wheat in London may be taken at the present time at from 40s. to 45s. per quarter, and that in the Punjab in normal years the prices range from 9 to 14 rupees for the same quantity, a saving of 8s. will often make the whole difference between a profitable

* The saving on the inland carriage has been made on the basis of the special reduced rate for long distances now charged on the East Indian Railway, viz., 18.7 pies per 100 maunds. The rates on the Sind, Punjab, and Delhi line, parts of which would have to be used both in exporting viâ Calcutta, as well as viâ Kurrachee, are a little higher, viz., 25 pies per 100 maunds. For the purpose of a rough calculation, however, it will be sufficient to adopt the East Indian Railway rate of 13'7 pies for the whole distance, especially as it may be presumed that with an increased wheat traffic the Sind, Punjab, and Delhi Railway would bring down its rates to the lower level. to the lower level.

		London, viâ achee.	Punjab to Cale	London, viâ cutta.
	Minimum Distance, 600 miles (Multan).	Maximum Distance, 1,000 miles (Umballa or Rawulpindi).	Minimum Distance, 1,100 miles (Umballa).	Maximum Distance, 1,500 miles (Multan or Rawulpindi)
Carriage by rail to the port, per quarter. Freight by sea to London, per quarter.	s. d. 6 10 8 0	s. d. 11 5 8 0	s. d. 12 6 10 0	s. d. 17 2 10 0

This shows an advantage of 5s. 8d. on the railway carriage and 2s. on the sea treight, or nearly 8s. per quarter

As the Indus Valley Railway is almost finished, with the exception of the bridge at Sukkur, experience will shortly show whether the line will be able to convey as large quantities of merchandise at rates as low as those now charged on the East Indian line, and it is only the inability of the Indus Valley Railway to accomplish this which moved affect the shows for east this which would affect the above forecast.

and a losing trade, that is between a trade of the largest dimensions and no trade at all.

The completion of the Indus Valley Railway is thus calculated to bring about a complete revolution in the wheat trade of India, which is likely to assume in the Punjab a magnitude considerably greater than that which it is likely to attain in the districts from which the wheat is at present exported.

These few observations on the special interest attaching to the exact knowledge of the varieties of wheat cultivated in the Punjab will, I trust, be considered to justify the adoption of the suggestion made above for the collection of a new set of samples in that province.

Suggested chemical analysis of the principal varieties of Indian wheat. 20. I beg likewise to suggest that it is very desirable to obtain a detailed chemical analysis of the chief varieties of wheat referred to in the accompanying Report. An opinion has been recently expressed that a proof is afforded of the exhaustion of Indian soils by the very low per-centages of phosphoric acid contained in the ash of the Indian wheats. It would be desirable to test the correctness of this opinion. A detailed analysis would further show whether the difference in quality between hard and soft wheat is due to a difference in chemical composition, the hard wheat appearing to be much richer in nitrogenous matter than the soft wheat. All these various points could be satisfactorily settled by analysing samples of the four different varieties, soft white, soft red, hard white, and hard red. For the sake of comparison samples of English wheats and of Australian and Californian should be analysed at the same time.

Request for the statistical information collected in India with regard to wheat. 21. In conclusion, I beg to refer again to the great importance of obtaining from India the detailed statistical information which has been collected under the orders of the Government of India mentioned at the beginning of this Memorandum. This information is urgently required to complete that which is afforded by the direct examination of the samples, and only after its receipt will it be possible to compile a complete and reliable account of the cultivation of wheat in India, an account which under the present circumstances would be exceedingly useful both to the Government and to the mercantile community.

J. F. W.

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APPENDIX A.

TABLE showing for each Province, as also for all India, the number of samples forwarded by the Government of India of wheat of each of the several varieties, together with their range in price, taken at the beginning of February 1879.

Note.—The classification, according to price, adopted in this Table applies, strictly speaking, only to the soft white wheats. It has been extended to the three other varieties in order to give a general idea of the number of samples of all varieties comprised within the same range of prices.

			Nun	iber of S	amples f	rom the	under-m	entioned	l Provinc	×3.		
Description of Wheat.	Bengal,	N.W. Provinces and Onde.	Ajmery and Mhairwara.	Paujab.	Sind.	Bombay.	Central Provinces.]કેલ્પ્રાય,	Madras.	Мужоге.	Burna.	All India.
A. Soft and semi-hard white wheat, or mixed with predominance of soft white.												
Superior samples 44s. to 48s. per quarter Grade No. I. 41s. 6d. to 43s. 6d. ,, ,, No. II. 39s. 6d. to 41s. ,, Ordinary 37s. to 39s. ,, Inferior below 37s. ,	6 9 5 5 2	81 96 44 26 4		7 4 1 1			7 3 4 2 					101 123 73 51 9
Total soft white samples - Average price per quarter -	27 s. d. 41 4	1	sd.	17 s. d. 42 8	41 <i>s. d.</i> 39 8	5 s. d. 42 1	16 s. d. 43 3	s. d.	sd.	s. d.	sd.	357 s. d. 41 9
B. Hard white wheat.					Ì							
Grade No. I. 41s. 6d. to 43s. 6d. per quarter , No. II. 39s. 6d. to 41s. , Ordinary 37s. to 39s. , Inferior below 37s. ,	3 4 5 —	5 23 8 1		$\frac{-2}{-1}$		3 29 27 1	5 3 	2 19 10 —				13 83 61 10
Total hard white samples	12	37	1	3	15	60	8	31		-		167
Average price per quarter	s. d. 39 10	8. d. 40 1	s. d. 40 0				s. d. 39 6	s. d. 39 8	s. d.	s. d.	s. d.	s. d. 39 5
C. Soft and semi-hard red wheat, or mixed with predominance of soft red.												
Grade No. I. 41s. 6d. to 43s. 6d. per quarter , No. II. 39s. 6d. to 41s. , Ordinary 37s. to 39s. , Inferior below 37s. ,	3 11 6 1	2 23 38 8	2 1 	2 7 11 10	$\left \begin{array}{c} -1\\ 1\\ -1\\ 1 \end{array} \right $	8 5		3 4				10 56 74 20
Total soft red samples		71	3	30	2	13	13	7				160
Average price per quarter	s. d 39 7				s. d 37 9		s. d. 39 1	s. d. 39 3		. d.	s. d.	8. d. 38 5
D. Hard red wheat.		1								ĺ		
Ordinary 37s. to 39s. per quarter Inferior below 37s	- <u>2</u> - 6	4	1	+	=	31 30		13 3	5 13	1 5	2	68 75
Total hard red samples	- 8	15	1	4	<u> </u>	61	12	16	18	6	2	143
Average price per quarter	• 35 10	8. d 33 10		s. d 33 0			s. d. 37 4	s. d. 37 0			s. d. 34 3	s. d. 36 1
All varieties.	Į											
Superior samples 44s. to 45s. per quarte Grade No. I. 41s. 6d. to 43s. 6d. " ". No. II. 39s. 6d. to 41s. " Ordinary 37s. to 39s. " Laferior below 37s. "	r 6 15 20 18 9	81 103 90 76 24	$\frac{-2}{2}$ 1	7 6 13 12 16	$-\frac{8}{15}$ 25 10	$-\frac{-6}{39}$ 63 31	7 4 11 26 1	2 22 27 3				101 146 212 254 114
Total number of samples -	- 68	374	5	54	58	139	49	54	18	6	2	827
Average price per quarter of 496 lb	s. 39 10	l. s. d) 40 9		. s. d	. s. 1 39 ()	. s. d.	s. d.	s. d.		s. d. 32 4		

APPENDIX B.

Typical Collection of Samples illustrating the principal varieties of Wheat grown in India.*

Nos. 1 and 2.—Samples of the finest kind of soft white wheat, equal to the best Austra-lian. No. 1 is a sample of wheat grown near Delhi ("Safed," No. 273), and is the best of all as regards colour and shape of grain, but as regards softness it is excelled by the second sample, grown in the Meerut district ("Safed," No. 397). Both were valued at the highest figure of any wheat at the time (February 1879) in the London market, viz., 4Ss. per quarter, and the weight per bushel is high, 65 lbs. in the case of the first, and 62 lbs. in that of the second sample. Samples approaching these two in quality were received from about 60 districts, comprising the greater part of Behar, the North-West

Provinces, and Oude, the Central Provinces, the Punjab, and Sind.
No. 3.—Sample of good wheat, grade No. I., grown in the Sultanpur district of Oude ("Samdhara," No. 711), and valued at 43s. 6d. per quarter.
No. 4.—Sample of good average wheat, grade No. II. or rather better, grown in the Chumparun district of Behar ("Hada," No. 154), valued at 40s. 6d. per quarter, and weighing 61 lbs. per bushel. This sample, like the previous one, differs from the two samples placed first by being mixed with a certain preparation of red and head two samples placed first by being mixed with a certain proportion of red and hard wheat, and is less uniform in appearance and colour than the best soft wheats placed first. These two specimens represent the two most numerous classes of the samples of soft white wheats in the present collection.

No. 5.—Sample of a peculiar wheat, resembling pearl barley in appearance, grown in the Meerut district ("Chunia," No. 401), valued at 43s. 6d. per quarter; weight $63\frac{1}{2}$ lbs. per bushel. This specimen is included rather as a curiosity, the variety it represents being cultivated only locally in some parts of the North-West Provinces, Oude, the Punjab, and Sind.

No. 6.—Sample of fine hard white wheat, equal to the best St. Petersburg or Kubanka, grown in the Khandesh district ("Bansi," No. 605), valued at 42s. 6d. per quarter, and weighing $62\frac{1}{2}$ lbs. per bushel. Wheat of similar quality is cultivated throughout the Deccan and Berar. Excellent samples were also sent from the North-West Provinces, Oude, and Bengal. This kind is most in request in Italy for the manufacture of macaroni, where it would fetch a considerably higher price than in this market.

No. 7.-Sample of fine soft red, grown in Ajmere ("Baja maigee," No. 588), valued at 41s. 6d. per quarter, and weighing 61 lbs. per bushel. Wheat of similar quality may be found almost throughout the whole of Northern India, and as far south as Berar.

No. 8.—Sample of hard red wheat, grown in Guzerat (No. 1a), valued at 37s. 6d. per quarter. This variety is very unsuitable for the European market, and its growth should not be encouraged. It is found mainly in the Peninsula, or south of the Ner-budda, as far as Mysore and Tinnevelly, and its prevalence usually indicates the unsuitability of that part of the country for the production of the better kinds of wheat.

No. 9.---A specimen of degenerate red wheat, from the Kurnool district in the Punjab ("Gehun lal," No. 260), valued at 31s. 6*d.*, is included in this collection as an example, and by no means the worst example, in the present collection, of a grain the cultivation of which should be discouraged. It weighs only $53\frac{1}{2}$ lbs. per bushel.

^{*} A certain number of duplicates of the Collection here referred to have been forwarded to India with the copies of this Report.

REPORT ON THE SAMPLES.

1. The samples of wheat which the Government of India, in their Resolution of 14th March 1877, directed to be forwarded to the Secretary *No. 32 of 6th Aug. 1877. of State for India for valuation and report, were received at 27th " 27th Sept. 35, various dates during the years 1877 and 1878 as enclosures 37, ,, " to the Despatches noted in the margin,* the final consignment 39, 8th Nov. ,, ,, 40 , 7th Dec. " 2 , 18th Jan. 1878. 40, of samples having been received only in December last. The total number of samples forwarded amounted to 1,152, and ,, ,, 8, 22nd Mar. ,, " 13, 15th July these were contributed by the different provinces in the fol-" ,, 17 29th lowing proportion :---,, ,, 23, 31st Oct. ,, -----

Bengal -	-	-	-	-	-	117 s	amples.
North-West	Province	s and C)ude	-	-	448	,,
Ajmere and	Mhairwa	rra	-	-	-	8	"
Punjab -	-	-	-	. •	-	101	,,,
Sind -	-	-	-	-	-	122	,,
Bombay	-	-	-	-	-	172	"
Central Pro	vinces	-	-		-	69	"
Berar -	-	-			-	58	,,
Madras	•	-	-	-	-	29	"
Mysore -	-	-	-	-	-	26	39 29
Burma	-	-	-	·_	-	2	,,
						ing	
		Total	L		•]	1,152	,,
					-		

In addition to the collection of samples, the Government of India in the Resolution . above referred to directed the collection of statistical details on the subject of wheat. Until that information arrives, it would be useless to undertake the elaboration of the very imperfect materials at present available. No attempt therefore has been made to give a statistical account of the cultivation of wheat in India, and the present Report will contain solely the results of the examination of the samples sent to this country.

Condition of the Samples.

2. The condition in which the samples arrived here illustrates one of the principal difficulties of the Indian wheat trade. As will be seen from the figures noted below,

	N	ame	of Province.			Total No. of Samples.	No. of Samples destroyed by weevil, lost, or otherwise unfit for valuation.	In a more or less weeviled condition.	In a sound or nearly sound condition.
Beng	ral				•	117	49	21	47
		est	Provinces a	and Ou	de -	448	74	134	240
			Mhairwarr			8	3	2	3
Punj			-	-	~	101	47	35	19
			-	-	- '	122	64	58	
Bom			-		-	172	33	34	105
Cent	ral 1	Prov	vinces -	-	-	69	20	9	40
Bera				-	-	58	4	23	31
Mad	ras	-	•		-	29	11*	13	5
Mys	ore	-	-	-	-	26	20*	1	5
Buri	ma	-	•	-	-	- 2			2
			Total	-	-	1,152	325	330	497

more than one half of all the samples were found on arrival to be more or less damaged by weevil. Of the 325 samples entered as lost or otherwise unfit for valua-

B 2

tion, a few were sent in quantities insufficient for examination, others (from Madras and Mysore) were forwarded unhusked, some were lost owing to injury in transit to the bag or case containing the samples, but the great majority were found to be unfit for valuation on account of excessive weevilling. Thus, only 827 samples were left for valuation, and even of these, 330 samples were more or less damaged by weevil, though not to such an extent as to render a valuation entirely misleading. Only 497 samples out of a total of 1,152 were in a perfectly sound, or at any rate nearly sound, condition.

Some provinces are much worse off in this respect than others. Thus in the case of Sind, out of 122 samples, there was not one perfectly sound, although 58 were still in a tolerably fit condition for valuation. Out of the 101 samples sent from the Punjab, almost one half, viz., 47, were unfit for valuation, and of the remainder only 19 were perfectly sound, whilst 35 were more or less weevilled. It is clear that from this reason the valuation of the Sind and Punjab series of samples will show a rather lower range of prices than would have been obtained if all the samples had been sound. The samples from Bombay and the Central Provinces are those which on the whole were received in the best condition, considerably more than one half of all the samples having remained perfectly sound.

The causes of this excessive damage by weevil are not far to seek. The best way of preventing this damage would have been to have collected the samples as soon as possible after harvest, and to have forwarded them to London by the quickest route. It appears, however, from an examination of the dates, that most of the samples were collected a considerable time after harvest, and that their arrival in London was still further delayed by their being forwarded in the first instance to Calcutta. It is probable indeed that many of the samples were already weevilled before they left India. The Bengal samples, for instance, were packed each in a hermetically sealed tin case, so that no weevil could have found access to them during the voyage, and yet out of 117 samples 70 arrived more or less weevilled. It should be suggested that in future any samples of wheat or other grain to be forwarded to this country for valuation should be collected immediately after the harvest, and despatched direct to London. The parcel post will be found on the whole to supply the quickest, most convenient, and most economical mode of forwarding them.

It may be further remarked that, in order to obtain a fair valuation, it is necessary to have a sufficient quantity of the material for ascertaining the weight per bushel, a very important determination. Many of the samples forwarded, especially in the second consignment from the North-West Provinces, were quite insufficient for this purpose, in some cases not exceeding two ounces, whereas at least one pound is required.

Extent of wheat cultivation in India.

3. Taken as they stand, the collection of samples here reported on still affords the most complete representation of the cultivation of wheat in India which has been brought together up to the present time. As will be seen from the numbers already given in the previous paragraphs, every province of India is represented in the collection. Samples appear from every district which is known to produce wheat in any considerable quantity. If any wheat is cultivated at all in the districts which are not represented, all the information at our disposal leads to the inference that such cultivation is quite exceptional and insignificant in amount. The districts therefore from which samples have been sent may be assumed, without any important error, to represent the area within which wheat is cultivated in India. This area comprises by far the greater part of the country. It extends throughout every district of the North-West Provinces, Oude, the Punjab, Sind, the Central Provinces, and Berar. In the Bombay Presidency samples were received from every part, with the exception of some of the coast districts. Similarly, the few examples received from the Madras Presidency were sent mainly from some of the interior districts, scarcely any coming from the districts near the coast. In the Lower Provinces of Bengal, all the districts comprised within the limits of Behar are represented by samples, but in Bengal proper hardly any are sent from the districts within the Gangetic delta, or those adjoining the Brahmaputra, and the cultivation of wheat seems to be restricted to the more or less hilly parts south and west of the Ganges, the Maldah district being the only one on the other side of the river from which any fair samples of wheat were forwarded. The area of wheat cultivation in India may be thus defined as the whole of Northern India up to the Gangetic delta, and in Southern India the whole of the

table-land above the Ghâts. From British Burma only two samples were sent, and its cultivation there is evidently quite exceptional.

The collection of samples is less complete in the case of some of the provinces than of others, and is still further diminished by the loss or damage from weevil, which has already been referred to. The most complete collection of samples were sent from the North-West Provinces and Oude, from which 448 samples were received, so that, notwithstanding the usual loss of some of the samples from weevil, there is from almost every district an ample supply of sound samples representing the varieties of wheat usually cultivated in it. But in the case of almost every other province repeated instances occur in which all the samples from a particular district have been destroyed. Such is the case, for instance, with the Purneah district and the Sonthal pergunnahs in Bengal, the Umritsur, Rawul Pindee, Montgomery, and other districts of the Punjab, the Surat and Ahmednagar districts of the Bombay Presidency, the Jubbulpore district of the Central Provinces, and some others. Again, many districts are represented only by samples more or less weevilled, others by only inferior specimens of wheat, all the softer and therefore more valuable samples having been rendered unfit for valuation by excessive weevilling. But in most cases enough samples remain from the surrounding districts to enable one to infer with tolerable certainty the nature of the wheat cultivated in the districts from which a deficient supply was obtained. The most notable exception occurs in the Punjab. Even if the whole collection had arrived uninjured, it would have hardly done justice to that province, which, in proportion to its area and population, possesses the largest cultivation of wheat in India, and which, as shown at page 7 of this paper, there are grounds for thinking may before long become one of the most important centres of the export of wheat from that country. From the districts of the Punjab proper, beyond the Sutlej, in one half of the instances only one sample was sent per district, although there is no reason to suppose that the wheats grown in the Punjab present a smaller range of varieties than those cultivated in other parts of India. The Punjab collection must therefore have been far from complete, even as sent from India, but as in addition it has suffered more from weevil than that of any other' province, Sind alone excepted, it affords only a very imperfect idea of the cultivation of wheat in the Punjab. A collection of 19 sound samples can hardly be considered to adequately represent a province containing 30 districts, and producing annually more than 10 million quarters of wheat, or about as much as the United Kingdom.

Native names of the different varieties.

4. Considerable confusion exists with regard to the native names of the different varieties of wheat, Many samples from Bombay and the Punjab had no names at all attached to them. Others are only distinguished as red or white wheat, or by similar generic designations in native languages, such as "safed" (white), "lal" (red), "surkh" (brick colour), "safed gehoon" (white wheat), "lal gehoon" (red wheat). The other Hindi, Persian, or Sanskrit synonyms for wheat, "kunuk," "gundum," or "saman," are also frequently employed, either alone or in connexion with the adjectives designating white or red. Whether by mistake or otherwise, the names appear sometimes to be misapplied. Thus, for instance, two samples called "lalia" (valuation Nos. 349 and 696), from Sitapur, consist of fine, soft, white wheat. In the same manner "lal disi" (No. 146), from Muzaffarpur, "kathia lalia" (No. 329), from Fyzabad, "lalia" (No. 478) from Lucknow, "lal pissia" (No. 504), from Etawah, and some other samples similarly described, are all white, notwithstanding the use of the adjective "lal" or red. On the other hand, a "white pissi" (No. 565), from Bilaspur, is described by the valuer as a good, soft, dingy red.

In addition to these generic designations, many specific names occur, which at first one would be inclined to consider as applying each to some well known variety of wheat with well defined characteristics. To a certain extent this seems to be the case. For instance, spread over all India from the Punjab to Bengal, and south as far as the Deccan, appear names like the following,—Daudi, Doodhia, Dawoodi, Daudkhani, Dudhia, which all seem to be derived from the same original name, "Dawood Khani" (Prince David's wheat). Throughout the Gangetic valley the samples sent under these names are of a nearly uniform character, almost invariably white and soft, and frequently of a very superior quality; but occasionally, and especially in the Deccan, a very inferior hard white wheat will go under this name. Another widespread series of names which appear to apply to the same description of wheat are the names Mundi, Mundia, Mundwa, Mandwa, Mondha, Mendha, which appear to be equivalent with Muria, Marua, Marwa, Muria ratua, and Ratta, Ratwa, Ratua, as also with Ujra. These names occur throughout the North-West Provinces and Oude, as also in the adjoining portion of the Central Provinces, such as "Pissi mundi." They apply almost invariably to a beautiful, soft, white wheat, as a rule of a very high quality. The same holds good of Seta, Sitia, Setwa, and Satwa, as also of Saman bargehuna, Sambhari, Sambharia, or Samaria, names which are frequently met with in the same districts as the above. The name "pissi," frequently used in the Central Provinces, and occasionally in the North-West Provinces, seems invariably to imply a softness of grain, whether in white or red wheat.

But in the case of almost every other name samples of the most different character may be found. Thus, for instance, the names Gajar, Gajra, Gaja, designate, as a rule, in the Agra and Rohilkund divisions and adjoining parts of Oude, rather an inferior sort of white wheat. Very frequently the wheat is mixed, white and red, sometimes altogether red; but occasionally samples are to be found under the same name, consisting of the finest soft white wheat, equal in value to the best specimens produced in India. The same applies to the names Kathia, Katteh, Kuttya, and other variations, which in most parts of India designate rather a poor sort of wheat, white or red, but mostly hard, and yet occasionally have been applied to the most beautiful samples of soft white. The names Jamali and Gangajali so frequently met are indiscriminately applied to wheat of the most different characteristics.

It may indeed frequently happen that, even in cases in which the grain is of a different hardness or colour, the plant known under the same name may be distinguished by a certain similarity in outward appearance, and that only the character of the seed has become changed or degenerated. It is impossible to decide this point without possessing specimens of the whole plant. But sufficient evidence has been shown of the uncertain meaning of the Native names as applied to the grain itself to make it unsafe to adopt them as a basis of a commercial grouping of the samples sent from India. This has been therefore effected entirely on the basis of the appearance of the samples themselves, without regard to the names under which they were sent.

Description of the principal varieties of wheat grown in India.

5. The whole of the 827 samples submitted for valuation may be arranged in four principal groups, embracing the white soft, the white hard, the red soft, and the red hard wheat. The differences between these varieties when pure are very striking.

The pure soft white wheat has a grain usually of a bright straw colour, is opaque in appearance, and the fracture is white and floury, the inner portion of the grain being friable. This is the most valuable variety for the London market, as it yields the finest flour. The Indian wheat of this description is in special request on account of its dryness, which renders it useful for admixture with home-grown wheat containing too much moisture when harvested in wet seasons. It is also liked by millers, on account of the considerable increase in weight which it experiences in grinding in consequence of its power of absorbing moisture.

The pure hard white wheat has a grain of a translucent, flinty, or "ricey" appearance, varying in colour from a greyish or yellowish white to the lighter shades of brown, the fracture smooth and glass-like, and the grain hard and brittle. This kind of wheat is not much in favour in the London market, as the usual appliances of English millers do not seem to be so well adapted for dealing with it as with the soft white. It is, however, in considerable request in the Mediterranean, and especially in Italy, where it is used in the manufacture of macaroni. This is the reason why the quotation in Italy for wheat of this description is frequently as much as 5s. per quarter higher than that of the London market.

The pure soft red wheat is only distinguished from the soft white by the different colour of the skin, which varies in different varieties from an amber colour to a reddish brown. The fracture is as white and mealy as in the soft white wheat, and the grain as friable. It is eminently suitable for the English market. The Indian red varieties are, however, frequently rather smaller berried than the white varieties, and are usually much deteriorated by being mixed with barley, gram, and different oilsceds.

The hard red wheat is the darkest of any, being frequently of a dark brown colour. It is translucent in appearance, and the fracture is smooth and glass-like. It occupies the lowest position in the London market, as it is generally disliked by the millers. Only a certain number of the samples, however, present these characteristics with distinctness. A considerable number consist of mixtures of the primary varieties in all possible proportions, white and red, soft and hard, from which the grains of each kind may be picked out. A considerable number too, though consisting of grain of uniform quality, exhibit in the character of the individual grain a transition between some of the four varieties above mentioned. For instance, in certain samples of the Bansi wheat, from the Central Provinces, some portions of the same individual grain may be opaque and soft, others translucent and hard. In the same way, many of the samples of wheat from the Punjab and from Bengal, although in general approaching in appearance the soft white wheat, are yet considerably harder than the pure soft wheat, and yet not hard enough to be classed with the hard wheat. These were usually described as semi-hard, and are in general classed with the soft white wheats. The same may be remarked even more frequently of red wheat, in which, perhaps, the greater number of samples is neither completely soft nor yet decidedly hard. In colour, again, the hard white passes by imperceptible transitions into the hard red, as there are many specimens of a light brown translucent grain which might be arbitrarily classed with either the hard red or with the hard white variety.

For the purpose of a simple classification, however, all the samples have been arranged in four groups, corresponding to the four distinctive varieties, the mixed or transitional samples being added to the group with the character of which they most nearly corresponded. Thus, all the semi-hard white wheats, or mixed wheats in which the soft white variety predominated, have been included in the same group with soft white. A peculiar description of short round berried wheat, in appearance like pearl barley, with a hardness considerably in excess of the usual soft wheat, has been likewise included with it. In the same manner, most of the semi-hard red and brown wheats are included in the same group with soft red. The number of samples contained in each group appears from the following enumeration; the average price assigned to each group has been added in order to show in this way the relative estimation in which the different descriptions stand in the London market :—

	Number of Samples.	Average price per Quarter of 496 lbs.
 White, soft and semi-hard, and pure or mixed, with a predominance of soft white Hard white Red, soft and semi-hard; pure or mixed, with a predominance of soft red Hard red - 	357 167 161 142	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Total	827	39 8

The number of samples classed with soft white and soft red amounts to 518, against 309 of hard white and hard red samples, showing a considerable predominance of soft samples, even when taking into account that, among the inferior varieties of the samples grouped with the soft wheat, there are many semi-hard samples or samples of soft wheat largely mixed with hard grain. The great number of soft samples is an important fact, as it is the soft wheat which is most suitable for export to this country, as appears from the higher price realized by it.

Geographical distribution of the different varieties of Indian wheat.

6. To a certain extent, the four distinctive varieties, the soft and hard white, and the soft and hard red, are cultivated side by side in the same districts, but, on the whole, a distinct geographical distribution of the several varieties may be perceived. In the accompanying map * the leading varieties of wheat produced by each district have been separately marked, and it clearly appears that, while Northern India produces mainly soft wheats, the samples produced in Southern India and part of Bengal are chiefly hard. The cultivation of the soft white wheat appears to be comprised within the basins of the three great rivers, the Ganges, the Indus, the Nerbudda, and their tributaries. In fact, from the whole territory south of the Nerbudda basin only two samples of soft white wheat were sent, one from Khandesh on the

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^{*} This map does not pretend to do more than give a general idea of the production of wheat in India, and of the manner in which information on this subject can be represented after the receipt of the complete statistics now in process of being collected.

Tapti, only a little south of the Nerbudda, and a sample of mixed soft red and white from the Belgaum district. Whilst the North-West Provinces and Oude sent mainly soft white samples, the majority of the samples from the Punjab are soft red. The soft red wheat also extends farther south than the soft white. Several fine samples were sent from Berar, from which not a single sample of soft white wheat arrived, and a sample (all but destroyed by weevil) came from as far south as Bellary. The hard white wheat occurs occasionally wherever the soft white is cultivated, but it is predominant in the Deccan, Berar, and parts of Bengal. The least valuable variety, the hard red wheat, extends the farthest to the south of all, and is, moreover, the only kind cultivated in the moist climate of the Gangetic delta, Orissa, and Burma. In the extreme south of the Madras Presidency, and in Mysore, the wheat appears to belong to a variety similar to the spelt, in which the husk adheres so strongly to the grain that mere threshing is insufficient to separate them, so that it requires to be husked in the same way as paddy. The grain appears to be of an inferior hard red description.

in the same way as paddy. The grain appears to be of an inferior hard red description. In the following table, the predominant character of the wheat culture in each province is shown by the number of samples of each of the four kinds of wheat sent from them, whilst the average price for each province illustrates the influence which the cultivation of the more valuable soft and white varieties exercises on the value of the whole provincial produce.

			· •		N	umber o	f Samples	of	Total	Average
	Name of Province.				Soft White,	Soft Red.	Hard White.	Hard Red.	Number of Samples.	price per Quarter of 496 lbs.
Bengal		-		-	27	21	12	8	68	s. d. 39 10
North-We	st Provin	ces and	l Oude	-	251	71	37	15	374	40 9
Ajmere an			-	-		3	1	ĩ	5	40 6
Punjab	-	-	-	-	17	30	3	$\overline{4}$	54	38 5
Sind -	-		-	-	41	2	15		58	39 0
Bombay	-	-	-	-	5	13	60	61	139	38 3
Central P	rovinces	- ,	-	-	16	13	8	12	49	40 1
Berar	-	- '	-	-		7	31	16	54	38 10
Madras	<u> </u>	-	-	-			-	18	18	36 1
Mysore	-	-	-	-		—		6	6	32 4
Burma	-		•	-				2	2	34 3
	' All In	dia	<u>-</u>	-	357	160	167	143	827	39 8

It appears from this table that the greatest preponderance of soft white samples occurs in the North-West Provinces and Oude, 251 samples out of 374 belonging to this class. The average value of the samples from this province is therefore the highest of any in India, amounting to 40s. 9d. per quarter of 496 lbs. The two provinces in which the soft white likewise constitutes an important fraction of the samples, viz., the Central Provinces and Bengal, realize also the next highest average values, viz., about 40s. per quarter. The Punjab would almost certainly have shown an equal, if not a higher value, if the collection from it had been more complete, and the same would probably have applied to Sind, if the samples from there had not been weevilled throughout, in addition to being mixed frequently with barley and other grains. All the other provinces have a lower average, the lowest occurring in the case of Madras, Mysore, and Burma, all the samples coming from which belong to the hard red description.

The detailed description and valuation of the samples is contained in the accompanying valuation list, pp. 26 et seq., in which the samples are arranged according to the districts from which they were forwarded. The provinces are arranged in sequence, starting from Calcutta. First come the Lower Provinces of Bengal, followed by the North-West Provinces and Oude, by Ajmere and Mhairwara, and the Punjab. Then follows Sind, in the Bombay Presidency, and the Bombay districts proper. Next follow the Central Provinces, Berar, Madras, Mysore, and at last Burma. Within each province the divisions follow in their geographical, and the sub-divisions or districts in alphabetical order. The samples within each district are grouped according to the four varieties, soft white, hard white, soft red, and hard red, the best samples of each description coming first, and then the others in the order of their value. In order to facilitate reference, and to be able to estimate at a glance the comparative frequency of the samples of each description of wheat, each entry is prominently distinguished by a mark consisting of one or more of the four letters A, B, C, D. The letter A stands for soft white, B for hard white, C for soft red, and D for hard red, whilst combinations of the letters indicate mixtures, in which the letter placed first points to the predominant variety. For instance, A D designates a mixture of soft white with hard red wheat, the soft white preponderating. The valuations of all the samples are strictly comparable with each other, although they were originally made at different periods, in the order of the arrival of the samples from India. At the time of the valuation of the last consignment, in February of this year, a certain number of samples of the first consignment were revalued, and rules were agreed upon for reducing the prices of the previous valuations to the level of the last quotations, and these reduced prices only were finally entered. It must be remarked that in the course of the arrangement of all the samples district by district, and in the order of their quality, the running numbers of the original valuation lists, which followed each other in the order of the arrival of the samples, were considerably disarranged, because samples from the same district may have arrived in several batches at very different times, and were placed at very different places in the original valuation list, whilst they are all placed together in the list now submitted. Whenever possible, the local number of the sample has been likewise entered. Most of the consignments, however, arrived without any list or local numbers whatever, and can only be identified by their name and the place they were sent from.

Soft white wheat.

7. The quality of the samples of white wheat forwarded to this country is on the Observations whole surprisingly high, and Mr. Alexander Smith to whom they were submitted reports on the samthat a considerable number amongst them are far superior to any Indian wheat ever ples of soft seen in the London market. The better qualities of wheat coming from Calcutta are usually comprised under the classes No. 1 and No. 2 Club, the quotations for which at the time of the last valuations, in the beginning of February of this year, were 42s. to 43s. for No. 1, and 40s. to 41s. for No. 2. By adding the samples which depart only a little from these values to the numbers contained within the above classes, and by distinguishing those either above or below them in value, the samples of soft white wheat may be arranged in the following five classes :-

white wheat.

Price per Quarter of 496 lbs. α . Samples of superior quality - 44s. to 48s. grade No. 1 - 43s. 6d. to 41s. 6d. ,, No. 2 - 39s. 6d. to 41s. ,, ,, - 37s. to 39s.

d.ordinary quality e. Inferior samples - below 37s. .

Ъ.

C.

The number of samples belonging to each class will appear from the following statement :---

				Number semi-l	of Samples of ard with pred Clas	Soft White V ominance of s ses under me	soft white) a	uding mixed of each of th	and e
Name	e of Provi	ince,		Superior quality, 44s. to 48s. per quarter of 496 lbs.		No.II. Club 39s. 6d. to 41s. per quarter of 496 lbs.	quality, 37s. to 39s.	Inferior quality, below 37s. per quarter of 496 lbs.	Total.
Bengal		-	-	6	9	5	5	2	27
North-West	Provine	ces and	Qude	81	96	44	26	4	251
Ajmere and	Mhairw	yarra	-						<u> </u>
Punjab	-	-	-	7	4	4	1	1	17
Sind -	-	-	-		8	14	. 17	2	41
Bombay	-	-	-		3	2			5
Central Pro	vinces	-	-	7	3	4	2		16
Berar -	-	-	-	-	•	— —			
Madras	-	-	-						
Mysore	-	-	-						
Burma	-	-	-	-					
	All In	dia -	-	101	123	73	51	9	357

С

Thus, out of a total of 357 samples, more than 100 samples are better than Grade No. 1, and more than 120 samples come up to that grade. The result would have been even more favourable if a certain proportion of the samples had not been to some extent damaged by weevil.

Four different types of grain may be distinguished among the samples of soft white wheat. These are :--

a. Wheat similar to Australian or Californian, stout regular grains of a brilliant colour, mostly very soft, and usually very uniform in quality and in clean condition.
b. Small berried wheat, more dull in colour than the foregoing, and less uniform in

5. Small berried wheat, more dull in colour than the foregoing, and less uniform in quality, hardly any sample being quite free from admixture with red or hard white wheat. Frequently the admixture of red grains is so considerable that the wheat must be called mixed rather than white, and there may be such a preponderance of hard or almost hard grains, as to give to the sample the character of a semi-hard rather than of a soft wheat.

c. A large berried wheat, thick in the middle, pointed at the ends, rarely uniform in colour, some grains as bright as the first variety just mentioned, others more dull and grey, occasionally passing into red, but more frequently mixed with hard grain, or passing into it by imperceptible degrees, the individual grains being often partly soft and partly hard. In fact, the greater portion of the samples of this description must be described as semi-hard.

d. Wheat with a peculiar, short, roundish grain, in appearance like pearl barley. It is the wheat known under the names of *paighumbree*, *gilghit*, *giljit*, or *nikka* in the Punjab, and of *chunia*, *munia*, or *rae muneer* in Oude and the North-West Provinces. It occurs locally in Oude, the North-West Provinces, the Punjab, and Sind, but it does not possess any great importance, as it does not appear to be very prolific. Although it is mostly semi-hard or even almost hard, the samples were very favourably reported on.

The sample sent from the Delhi district under the name "Gundun safed" (No. 273, page 46 in valuation list) may be accepted as the finest type of wheat grown in India. It is a soft white stout grain, remarkably uniform in quality, and in clean condition. The weight is very high, amounting to 65 lbs. per bushel. It is equal to the finest wheat grown in South Australia or California, the countries from which of all others the finest qualities of wheat are imported. It has been valued at 48s, per quarter of 496 lbs., this being the quotation for best Australian wheat at the time, and it has been declared equal in quality to the finest sample of wheat shown in the late Paris Exhibition. Nor is this an exceptional sample. Wheat of equal value and of equal excellence has been sent from Gya in Behar ("Dawoodie," Val. No. 150, page 29), from Unao in Oude ("Saman," No. 359, page 37), from Bulandshahr and Meerut in the North-West Provinces ("Safed," No. 397, page 45, "Safed," No. 629, page 45, and "Safed," No. 459, page 44), from Dera Ismail Khan, in the Punjab (No. 411, page 51), as also from Hoshungabad, in the Central Province ("White Pissi," No. 575, page 61). These places indicate the limits of the area within which the finest wheat is cultivated, and within which may be found a considerable number of samples ranging in value from 46s. to 48s. which are but little inferior to the eight samples ranging in value from 46s. to 48s., but also many of the 48 samples valued from 44s. to 46s., consist substantially of wheat of the same quality; all, more or less, like Australian or Californian, and only slightly depreciated in value by weevil, by slight admixture with red or hard grains, with barley, gram, or oilseeds, or impurities of other description. The local names vary from province to province, but no corresponding difference appears in the Grain. The samples belonging to this class under the Yarious names of Pissi in the Central Provinces; Shori in Sind; Zurd kanak in the Punjab; Daudia, Safeda, Setwa, Muria, Mundia,

which are perfectly different in appearance, and often really inferior in quality. The varieties previously described as the small berried and the large berried respectively constitute the greater portion of the wheats of Grades Nos. 1 and 2, and of those of lower quality. But in the comparatively rare instances in which they are characterized by considerable uniformity and softness of grain they range as high in value as the samples resembling the Australian wheat, whilst the value of even this latter variety may be reduced by the admixture of impurities to the lowest level observed in any of the other varieties. It has been already explained that both the small-berried and the large berried variety of soft white wheat are usually of less uniform appearance than the Australian-like wheat, and that they frequently contain a considerable admixture of red and of hard white wheat, so as to render it often difficult to decide whether a given sample should be classed as a red or a white, a hard or a soft wheat. This seems to afford an explanation why the same name so often serves to designate varieties of grain which appear to be very different from each other. Thus under the name of Jamali a number of small berried varieties were sent from Bengal, some of which were soft and white, others perfectly hard, white, or red, others again a beautiful soft red, while most were rather mixed in character. In the same way the large berried soft variety occurs frequently under names like Burghona, Anokha, Kathia, Jalalia, and Bansi, usually applied to hard white wheats, or even under the name of Desi, usually applied to red wheats, and, in fact, it is rarely free from a considerable admixture of hard grains, even if the individual grain does net, as is often the case with the Bansi variety in the Central Provinces, possess a mixed character, partly soft, partly hard.

Every defect in the way of colour, uniformity, and softness of the grain diminishes in a corresponding manner the value of the sample, but the quality is even more seriously deteriorated by the admixture of foreign substances, especially of barley, gram, linseed, and rapeseed or other grains. Other impurities, such as lumps of earth and clay, and chaff, likewise occur, and often reduce the value of the wheat considerably. In many of the samples mere screening would suffice to separate the fine grain from the impurities, and to improve the value by as much as 5s. per quarter. For instance, a sample from the Etawah district (Mundia, No. 498) has been valued at only 37s. on account of the considerable admixture of barley and gram, and impure condition generally, but the valuer reported that by cleaning the value could be raised to 42s. It may be noticed that the Sind samples especially suffer from the presence of barley, and that the wheat, which is often of the finest quality, is thereby rendered often quite unsaleable, as being in its actual condition quite unfit for milling.

The following list of some of the finest samples of soft white wheat will serve to give some idea of the names under which some of the finest samples were sent, as also of the places in which they were produced :---

District.		No.	. Name.		Weight per Bushel.	P	ice er irter.	Remarks.
			Low	er I	rovinces c	of Ber	igal.	
	1		:			s.	<i>d</i> .	1
Chumparun	- 1	157	Dawoodia -	-	63	47	0	Small berried.
Gya -	-	150	Dawoodia	-	$62\frac{1}{2}$	48	0	Like Californian.
Patna -	-	141	Maghie -	-	64 5	45	6	
Shahabad -	-	144	Doodhia -	•	62^2	47	0	Like Californian.
			North	- W	est Provin	ces ar	nd ()	ude.
Azimgarh	- !	713	Daudi -	-	61	46	0	
Benares -		703	Daudia -	~	- 1	46	0	
Basti -		715	Gangajali -	-		45	0	
Banda -	~ `	704	Pisi gangajali	-		47	0	1
Cawnpore -	- 1	642	Muria -	-		48	0	
Ditto -	-	621	Anokha -	-		47	0	
Ditto -	-	637	Desi -	-		46	0	Large berry.
Ditto -	-	514	Mudia -	-		44	6	Fine drop wheat, probably 64 lbs.
Futtehpore	÷.	639	Pisi awwal	- 1		46	0	
Ditto -	- 1	670	Muria -	-		45	0	
Pertabghar	- '	466	Mundwa	-	$62\frac{1}{2}$	47	0	Like Californian.
Ditto -	-	630	Setwa -	- 1	60*	46	6	
Ditto -	-	614	Mundia -	-		46	0	
Bharaich -	-	459	Daudi -	_ [61	46	6	Like Californian.
Ditto -	-	458	Sambodhwa	-		46	Ó	
Ditto -	-	702	Sandhua -	- 1	_	46	õ	
Gonda -	-	767	Daudi -	-	_ !	4.5	6	
Unao -	-	359	Saman -	-		48	Û.	i 1
Ditto -	-	261	Marua -	-	_	46	0	Like Californian.
Ditto -	-	633	Ditto -	-	Ì	46	0	Ditto.
Ditto -	-	672	Safeda -	- j		45	0	
Kheri -	- '	386	Sitia -	-	60 <u>1</u>	45	0	Like Danzig, but dirty.
Shapher -	•	350	Mundia -	-	61	46	0	Like Californian.
Ditto -	- •	. 665	Muria -	-		46	0	
Lalitpur •	-	636	Pisi duem	-		4.5	0	
Etah -	-	430	Mundia -	- 1	62	47	0	Like Australian.

C 2

District.	No.	Name.	Weight per Bushel.	Price per Quarter.	Remarks.
	00.0			s. d.	
Etah	632	Sambharia -		46 0	Like Californian.
Ditto	671	Ratta -		46 0	Ditto.
Muttra	631	Safeda		46 6	Ditto.
Mainpuri - 🛛 -	635	Sambharia -		47 0	Ditto.
Ditto	634			46 6	Ditto.
Bulandshahr -	459	Safed	. 63	48 0	Like Australian.
)itto	463	Gajar	$63\frac{1}{2}$	47 0	Like Californian.
Ditto	640	Safed		46 6	Ditto.
Ditto	465	Mendha	$62\frac{1}{2}$	46 0	Ditto.
Ditto	638	Gajar	_	46 0	
Ditto	626	Rutta	62	45 6	
Ditto	-462	Ruta	63	45 0	
Ditto	657	Munia	****	45 0	Like pearl barley.
Dehra Doon -	681	Mihirta		45 0	
Meerut	397	Safed	62	48 0	Like Californian.
Ditto	629	Ditto - ·		48 0	Ditto.
Ditto	403	Monda	62	47 0	Ditto.
Ditto	641	Muria		45 6	
Muzaffarnagar -	699	Safeda		46 0	
Saharanpur -	310	Monda	62]	46 6	
Ditto	663	Muria		45 0	
Bareilly	625	Sambharia -		46 0	
Ditto	677	Pisia	60	46 0	
Ditto	692	Khatia		45 0	
Budaon	697	Bhambria		46 6	
Ditto	698	Muria	61	46 6	
Ditto	617	Ratua	őî	46 0	
Ditto	656	Rai munea -		45 0	Like pearl barley.
Ioradabad -	714	Muria awwal -	62	47 0	Ditto.
Ditto	613	Mundia		46 0	Small berry.
Ditto	728	Mandwa kada -		46 0	Sman berry.
Ditto • •	727	Ditto	_	45 6	
Ditto	726	Muria safed -		45 0	
Jitto	720	Muria saleu -		40 0	
	050		Punjab.	40.0	· · · · · · · · · · · · · · · · · · ·
Delhi	273	Gundun safed -	65	48 0	Like Australian.
arsa	292		61	45 0	T the head of the
Dera Ismail Khan	411		63	48 O	Like best Californian,
			utral Prov		
Baitul	181	Pissi	63	46 0	Like Californian.
Ioshungabad -	575	Pissi white -	62	48 0	Like Australian.
Ditto	579	Sohareea		48 0	Ditto.
Mandla	171	Pissi sookrawali -	60 1	46 6	Like Californian.
Saugor	165	Pissi	$62\frac{1}{2}$	46 0	Long berried.
Seoni	189	Mundi	64	47 O	Like Californian.
Ditto	188	Pissi	59]	45 6	
V			1 2		1

It will be seen that the majority of the finest specimens, ranging from 45s. to 48s. per quarter, come from the North-West Provinces and Oude. The Central Provinces come next, and there are likewise some specimens from Behar, and from the Punjab. No samples equal to the foregoing appear from Bengal proper, although soft white wheat of a tolerably good quality, mostly of the small-berried kind, is grown as low down as the Hooghly district, and a sample from Beerbhoom was fully equal to Grade No. 1. As regards the Punjab again, the best samples all come either from the Delhi and Hissar divisions immediately adjoining the North-West Provinces, or else from the Trans-Indus districts, in which the wheat resembles the fine variety cultivated in Upper Sind. But from the Punjab proper, between the Indus and the Sutlej, no perfect samples of pure soft white were available for report, even the best being rather semi-hard than soft, and the grain less uniform than in the samples included in the foregoing list. Nevertheless it would not be fair to conclude on this account alone that the cultivation of wheat is conducted less carefully and skilfully in the Punjab than in the North-West Provinces, because the fragmentary nature of the Punjab collection already commented on, and especially the highly weevilled condition in which most of the samples arrived, make it impossible to accept the Punjab series of valuations as a fair representation of the cultivation of wheat in that province. It must be also remarked that the softest, that is, the finest specimens,

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are those most exposed to destruction by weevil, and it is likely that but for their weevilled condition some of the samples from the parts of the Punjab referred to would have been as favourably reported on as the finest samples from the North-West Provinces. The same applies to Sind, from which a number of samples were sent equal to the finest grown in India, but their weevilled condition prevented their being valued at anything like the prices assigned to the best samples. The districts under Bombay sent no samples which could be compared with the finest wheat of the Central Provinces, but a few samples were sent from Broach and from Khandesh which come up to Grade No. 1.

The weights per bushel given in the above list of samples are very high, notwith-standing that some of the samples were touched by the weevil. None weigh less than 60 lbs. per bushel, whilst in some cases the weight goes up to as high as from 63 to 65 lbs.

Hard white wheat.

8. There is much less variety among the different samples of hard white wheat than Observations among those of soft white wheat already noticed. A great number of samples on the samamong those of soft white wheat already housed. A great number of samples ples of hard resemble in appearance the large berried soft or semi-hard wheat already described, white wheat. only that they are completely hard and translucent. Others, with the same difference, resemble the small berried soft or semi-hard variety. There is in addition a considerable number of samples with a long thin ricey grain, resembling some of the inferior varieties of hard red wheat. These latter samples, frequently known under the name of Khattya, Kathe, Kuthya, are really an inferior grain in every respect, and the samples are rarely in a good condition, most of them containing chaff, dirt, and foreign substances in considerable quantity. But among the large berried samples there are many of a very high quality, with clear uniform grains in good condition and free from impurities. In fact, many of these samples are equal, if not superior, to the best hard St. Petersburgh or Kubanka, which is usually considered as the type of wheats of this kind. The highest prices realized by the hard white wheats are, however, much below those ranging in the London market for the soft wheats, and, as already remarked, the Mediterranean, and especially Italy, seems to afford the best market for wheat of this description, which is in demand there for the manufacture of macaroni, and frequently fetches prices as much as 5s. per quarter in excess of the quotations of the London market.

No classification in any way resembling that of the soft white exists for the hard white wheat; but in order to obtain a view similar to that given for the samples of the former variety, the hard white wheats have been arranged in groups corresponding to the same ranges of price as those of the different classes of the soft white. The following table shows the result of this classification :----

* .			r equal to that		Wheat of a va aentioned Class	
Name of Province.		Class I., 43s. 6d. to 47s. 6d.	Class II., 39s. 6d. to 41s.	Ordinary quality, 37s. to 39s.	Inferior quality, be- low 37s.	Total.
Bengal	-	3	4	5		12
NW. Provinces and Oude	-	5	23	8	1	37
Ajmere and Mhairwarra	-	*****	1			. 1
Punjab	-		2		1	3.
Sind	-			8	7	15
Bombay	-	3	29	27	1	60
Central Provinces -	-		5	3		8
Berar	-	2	19	10		31
Madras	-			-		<u> </u>
Mysore	-		—			
Burma	-					
Total -	-	13	83	61	10	167

It will be seen that a considerable proportion of the samples is supplied by Bombay and Berar, from which hardly any samples of the soft wheat were sent. These two provinces supply by themselves more than one half of the samples of hard white wheat. The number of samples (37) sent from the North-West Provinces and Oude

is large in itself, but it appears small when compared with the number of soft white samples from the same parts, which was almost seven times larger. The following list enumerates some of the best samples of the wheat now under consideration :--

			-		
District.	No.	Name,	Weight per Bushel.	per	Remarks,
		Lowe	r Province	es of Be	ngal,
Moorshedabad Monghyr Maldah -	- 57	7 Bogra 7 Gangajali	$- 62\frac{1}{2}$ - 62 - 63 $\frac{1}{2}$	$\begin{vmatrix} s. & d \\ 41 & 6 \\ 41 & 0 \\ 42 & 0 \\ 41 & 6 \end{vmatrix}$	Short berried. Long berried, flinty. Very fine, long berried.
Tirhoot -	- 148	•	- 64	,	Small berried.
a 1			Vest Provi		
Gonda - Barubanki Lucknow Unao - Etah - Mainpuri Ditto - Aligarh - Bulundshahr Ditto - Bulundshahr Ditto - Budaon - Shahjehanpur	- 399 - 367 - 477 - 650 - 436 - 379 - 656 - 643 - 651 - 461 - 402 - 655 - 655 - 481	7 Murva 5 Tamla - 5 Samanbargehuna - 5 Bhidia - 6 Ditto - 6 Kathia - 8 Barha - 10 Ditto - 7 Ditto - 10 Di	$ \begin{array}{c c} - & 61 \\ - & 60\frac{1}{2} \\ - & - \\ - &$	$\begin{array}{c} 41 & 0\\ 41 & 0\\ 42 & 6\\ 41 & 0\\ 40 & 6\\ 42 & 0\\ 40 & 6\\ 41 & 0\\ 40 & 6\\ 41 & 0\\ 40 & 6\\ 40 & 6\\ 40 & 6\end{array}$	Mixed, hard. Long berried. Long berried, like Kubanca. Long berried. Ditto. Ditto. Ditto. Large berried. Long berried.
U I		,	The Pun	iah	
Sarsa -	- 291	Brown wheat -		·	Small berried.
	1]	,		,
Bhownuggur Khandesh - Ditto - Nassick - Punch Mehals Ditto - Dharwar - Poona -	- 25 - 580 - 605 - 999 - 1,011 - 1,013 - 581 - 965	Hasia Kalee kusal Bansi Yellow Banshi - Daudkhani - Kathee malvi - Bakshi gahu -	$\begin{array}{c} Bomba,\\ 60\frac{1}{2}\\ 61\\ 62\frac{1}{2}\\ 57\\ 62\\ 61\\ 58\\ 62\\ \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Long berried. Ditto. Very fine. Finest of all, but weevilled. Large berried. Large berried, finest kind grown.
Satara -	- 994	Buxi	60	40 6	Very fine.
		C	entral Pro	vinces.	•
Saugor -	- 164	Hansia	$62\frac{1}{2}$	40 6	Long berried.
			Berar	•	
Nagpore - Domraotti - Ellichpur - Ditto - Mkola - Ditto - Buldana - Ditto - Ditto -	- 197 - 879 - 923 - 918 - 894 - 891 - 908 - 914 - 912	Botka Bansi Ditto Bansi Ditto Ditto Ditto Ditto Ditto	$ \begin{array}{c} 61 \\ 60^{\frac{1}{2}} \\ 60 \\ 61 \\ 60 \\ 61 \\ 60 \\ 61 \\ 60 \end{array} $	$\begin{array}{cccc} 40 & 6 \\ 41 & 6 \\ 41 & 0 \\ 40 & 6 \\ 41 & 6 \\ 41 & 0 \\ 41 & 0 \\ 41 & 0 \\ 41 & 0 \\ 40 & 6 \end{array}$	Long, thin. Long berried. Ditto. Ditto. Long berried. Ditto.

The finest of these samples is (No. 605) "Bansi," from Khandesh, valued at 42s. 6d., though even this sample would have been probably surpassed by a sample of "yellow Banshi" (No. 999) sent from Nassick, had not the latter arrived very much damaged by weevil. All parts of the Bombay Presidency south of the Nerbudda supply fine samples under the names of Banshi, Bansi, Bukshi, Buxi, Jalalia, and others. But some of the samples from the North-West Provinces and Oude, sent under the names of Barba, Tamla, Anokha, and others, are equally good. One of the best samples, "Gangajali" (No. 77), valued at 42s., comes from the Maldah district in Lower Bengal, and altogether the cultivation of hard white wheats, if restricted to a smaller area than that of the soft varieties, results in the production of many samples equal to the finest grown in any country, which sent to a suitable market would be likely to realize prices almost as high as those obtainable for the best descriptions of soft white wheat. It may likewise be noted that the hard wheat appears to be on the whole less liable to suffer from weevil than the soft variety. The weights per bushel are almost as high as in the soft white; all but a few are above 60 lbs. per bushel, some as high as $64\frac{1}{2}$ lbs. Of the few samples below 60 lbs. most are so much weevilled that the loss of weight is accounted for.

Soft red wheat.

9. The condition of most of the samples of soft red wheat affords evidence that its Observations cultivation is conducted with much less care than that of the fine white varieties. on the same They are, as a rule, much mixed with barley, gram, or oilseeds, and foreign substances red wheat. of all descriptions, and the grain is rarely so uniform in its quality as in the good white samples. The striking uniformity in the Native names for the red wheat is in itself a much of the smaller estimation is which it is a line of the red wheat is in itself a proof of the smaller estimation in which it is held by the Native agriculturist. In the greater number of districts, in which half a dozen or more different varieties of white wheat will be cultivated under as many different names, the red wheat will be known only under the generic denomination of "lal" or "surkh," indicating that the process of selection of seed and cultivation of special varieties has been applied to red wheat in a much smaller degree than to the white wheat. The red wheat is, however, deserving of more attention than it now receives, for the soft red varieties are exceedingly suitable for the English market, and very readily saleable. The following table shows the number of samples and their range of prices for each province of India, the classes being those adopted for the soft white wheat, as there is no corresponding classification for the red variety :---

•		r equal to that	es of Soft Red of the under-n White Wheat.	nentioned Class	
Name of Province.	Class I., 41s. 6d. to 43s. 6d. per quarter of 496 lbs.	Class II., 39s. 6d. to 41s.	Ordinary quality, 37s. to 39s.	Inferior quality, below 37 <i>s.</i>	Total.
Bengal NW. Provinces and Oude -	$\frac{3}{2}$	11 23	6 38	1 8	21 71
Ajmere and Mhairwarra -	$2 \\ 2 \\ 2$	1	_		3
Punjab	2	7	11	10	30
Sind				1	2
Bombay	1	8 2 3	5	1	13 13
Central Provinces Berar	1	2	10		10
Madras					_
Mysore		·			
Burma			-		_
Total	10	56	74	21	161

As may be seen from the foregoing table, the provinces in which the soft red wheat is chiefly grown are the same as those in which the soft white is cultivated, but the limit of cultivation of the former, as previously remarked, extends rather further to the south than that of the soft white variety. The following is the list of the finest samples of soft red wheat obtained :----

District.	No.	Name.	Weight per Bushel.	Price per Quarter.	Remarks.
		Lower Prov	vinces of Ben	gal.	
eerbhoom urdwan bagulpore iazareebagh ohardugga ya irhoot	- 89 - 99 - 66 - 162 - 158 - 158 - 149 - 127	Jamali - Desi Jamali - Gour Jogra - Lall - Sarhal -	$ \begin{array}{c cccc} - & 61\frac{1}{2} \\ - & 61 \\ - & 62\frac{1}{2} \\ - & 63 \\ - & 63\frac{1}{2} \\ - & 64 \\ - & 62 \end{array} $	$\begin{array}{cccc} s. & d. \\ 41 & 0 \\ 41 & 0 \\ 41 & 0 \\ 41 & 6 \\ 42 & 0 \\ 41 & 6 \\ 40 & 6 \end{array}$	Small berried. Ditto. Small berried, yellowish. Stout. Stout, short berried. Fine, clenn, semi-hard.

·						
District.	No.	Name.	Weight per Bushel.	Valu per Quart		Remarks.
		North-Wes	t Province	s.		
Azimgarh Allababad	- 148 - 777	Hurrah - Raksa -	- 63 <u>1</u>	41	0	Small berried, semi-bard.
Cawnpore Jalaun -	- 789 - 473	Pisia Pisia, red -	$-\frac{-}{61\frac{1}{2}}$	41	06	Large berried.
Muttra - Bulandshahr Meerut -	- 790 - 464 - 398	Lal - Gehun lal Surkh -	$- 62\frac{1}{2}$ - 61 $\frac{1}{3}$	40 42 41	6 0 0	Long berried.
	1		1 2		•	
		Ajmere and	Mhairwar	ra.		
	588 592 590	Baja maigee Kharcha baja Ditto -	$ \begin{array}{c c} - & 61 \\ - & 64\frac{1}{2} \\ - & 62 \end{array} $	41 42 41	6 6 0	
	1 990		- [02	1 11	U,	
		Pu	njab.			
Gurgaon - Rohtak -	- 259 - 427	Red wheat	- 64 - 62 - 611	41	6 0	
Jhelum - Shahpur - Dera Ismail Kh	- 272 - 410 nan 413		- 61 <u>1</u> - 61 - 60 <u>1</u>		0 0 6	Large berried, mixed with barley. Long berried.
	•			•	,	
		Bombay 1	Presidency.			
Bhownuggur	- 15 22	Vajia - Patalia -	- 58 - 58	40	6 6	Semi-hard. Ditto.
	9	Ditto - ·	$- 59\frac{1}{2}$	40	6	Ditto.
		Central 1	Provinces.			
Nimar - Bilaspu r -	- 194 - 567	Dhunya - Khathia -	60 ;	41	6	Fine specimen. Small berried.
-	566	Red pissi -	- 63	41	0	
		Ber	rar.			
Bassim -	- 906	Casdee -	- 61	41	0	1

All these samples represent wheat which is very suitable for the English market. The finest sample is one from Ajmere, "Kharcha baja" (No. 592); but, as will be seen from the list, there are numerous samples almost equal to it from Bengal, the North-West Provinces, the Punjab, and the Central Provinces. The samples from the provinces just named are, as a rule, comparatively light in colour, and quite as soft as the softest white wheat. But from Bombay a good many samples of a large berried wheat were sent which deserve rather the name of brown than of rcd wheat, on account of the darkness of their colour. They are also much harder than the usual soft wheat, in fact almost hard. Still some of the samples grown in the State of Bhownagar are favourably reported on, with values up to 40s. 6d. per quarter. It may be likewise remarked that in the Punjab, from which several of the best samples were obtained, there appears to be grown in many districts a very degenerate kind of red wheat, in which a large proportion of the grains are so thin and shrivelled that they resemble rather grass seeds than the berries of a cultivated grain.

The prevalence of inferior varieties in the Punjab may be gathered from the fact that out of 30 samples of soft red wheat 10 are classed as inferior, being in value below 37s. the quarter, whereas out of 131 samples sent from the other parts of India only 11 are inferior. The weights per bushel given in the list are as high as in the preceding group, rising to $64\frac{1}{2}$ lbs., and only in three instances is the weight below 60 lbs.

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Hard red wheat.

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10. The following table shows the number of samples and their range of prices :---

Observations on the samples of hard red wheat.

	1	Number	r of Samples of Red Wheat.	Hard
Name of Province.		Ordinary quality, 37s. to 39s.	Inferior quality, below 37s.	Total.
Bengal	-	2	6	8
North-West Provinces Oude.	and	4	11	15
Punjab	-		4	4
Sind	-	—		
Bombay	•	31	29	60
Central Provinces -	- 1	11	1	12
Berar	-	13	3	16
Madras	-	5	13	18
Mysore	-	1	อี	6
Burma	-		2	2
Total -	-	68	74	142

Most of these samples come from the Deccan and Southern India, and a very large proportion are inferior in quality, very thin, hard, and very dark. Wheat of this description is not in good demand in the London market.

India Office, 29th March 1879.

J. FORBES WATSON.

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VALUATION of the Samples of Wheat forwarded in accordance with the Orders of the Government of India of 14th March 1877. The values given are based upon the quotations ruling in the London Market in the beginning of February 1879. Key to letters showing colour and hardness,—A, soft white; B, hard white; C, soft red; D, hard red.

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Num- nple.	Sam- sived.		Des	cription of Sample.			Val	uation and Report.
Valuation Num- ber of Sample.	Number on Sam- ple as received.	Locality.	Colour and Hardness.	Name.	Condition.	Weight.	Value.	Remarks.
124 123	2	BENGAL. PRESIDENCY DIVISION. Nuddea District. Krishnagar	<u>D</u> .	Jamali Dhoodia	Weevilled Destroyed by weevil.	60	s. d. 38 0	Good, mixed, hard red, some barley.
90 89 93 91 92	2 1 5 3 4	BURDWAN DIVISION. Beerbhoom District.	A C 	Dudhia Jamali Kheri Gangajali Desi	Weevilled Ditto Destroyed by weevil.	$ \begin{array}{c} 62 \\ 61 \\ 60 \\ 2 \end{array} $	43 0 41 0 40 0	Fine, soft, white. Fine, small, soft berried, red. Good, soft, red, small berried, little dirty.
99 95 94 96 97 98	11 7 6 8 9 10	Burdwan District.		Kheri jamali - Desi Jamali Dudhia jamali - Jamali Gangajali	Weevilled Destroyed by weevil. Lost.	57 <u>1</u> 61	31 6 41 0	Inferior, dingy reddish, mixed with barley, earth and seeds, would require screening. Fine, soft, small berried, red.
100 101	12 13	Hooghly District. Hooghly	A C	Dhudia Jamali	Very much weevilled - Weevilled	56	39 0 38 0	Good, white, about No. 2. Good, soft, small berried, red, some barley.

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	-103 102 104	2 1 3	ORISSA D Balasore			<u>D</u> —	Desi, No. 2 Desi, No. 1 Gobra	:	 Destroyed by weevi	-	61	36 6	Dingy, clean, hard, red.	
D 2	107 109 118 117 105 115 108 116 100 110 111 112 113 114 119	3 5 14 13 1 11 4 12 2 6 7 8 9 10 15	RAJSHAHYF Moorshedabad Dewanserai Sooty - Ditto Moorshedabad Mirzapur Dowlutabad Mirzapur	ad District.		A B "C" D 	Jamali Ditto Gangajali Jamali Gangajali Ditto Kheri Ditto Gangajali Kheri Jamali Ditto Ditto Kheri	:	Weevilled Weevilled Lost.		621 61 59 601 58 581 581	34 6 41 6 40 0 38 0 38 0 38 0 38 0 38 0 38 0 38 0 3	 Fine, hard, short berried, nearly white. Fine, hard, long berried, flinty white. Good, hard, long berried, flinty white. Good, hard, white, a little mixed with earth. Good, red, mixed with barley. Inferior, small berried, red, mixed with gram. 	27
2	120 121 122	16 17 18	Rajshahye Jellinghee BHAGULPORI Bhagulpori	E DIVISION.	-	D 	Jamali Gangajali Kheri		 Destroyed by weev	-' - - - - -	59	36	6 Hard, small, thin berried, red.	
	60 64 68 59 65 67	7 11 15 6 2 14	Banka - Bhagulpore	÷	-	A " " "	Jamali Ditto Burghona Jamali Doodhia Jamali		Weevilled Little weevilled Ditto	-	$ \begin{array}{c} 62\frac{1}{2} \\ 61 \\ 61 \\ 61 \\ 60 \\ 60\frac{1}{4} \end{array} $	43 42 42 40	No. 1. Good, white, rather better than No. 1 Club. Fine, long berried, white, semi-hard. Good, small berried, white, semi-hard. Fine, white, mixed with gram.	a di seconda

Num- mple.	Sam- ei v ed.		Des	cription of Sample.	8.0	-	Val	Ination and Report.	1
Valuation Num- ber of Sample.	Number on Sam- ple as received.	Locality.	Colour and Hardness,	Name.	Condition.	Weight.	Value.	Remarks.	
66 58 61 62 63 69 70	13 5 9 10 16 17	Bhagulpore District—cont. Kishengunge - Lakhanpur Soopole - Madipura -		Jamali Sona Ticker Doodhia Jamalia Doodhia Ditto Jamali	Destroyed by weevil. Lost. } Destroyed by weevil. Lost. Destroyed by weevil.	62 <u>1</u>	s. d. 41 0	Fine, small berried, red.	
57 56 54 55	4 3 1 2	Monghyr District. Monghyr Ditto Ditto Ditto	B 	Bogra Jamali Doodhia, No. 1 Ditto, No. 2	Destroyed by weevil.	62 63	41 0 40 0	Fine, bard, long berried, white, flinty. Good, clean, hard, small berried, white.	28
71 77 86 81 76 87 73 74 75 78 80 82 83 84 85 85	18 24 19 33 28 23 34 20 21 22 25 26 27 29 30 31 32 35	Maldah District. Gomastipore Nahalgunge Mawalgunge Gomastipore Debipore Kharba Gomastipore Shibaganj Debipore Nawabgunge Gazole Ditto English Bazaar	A B "C" "D" 	Jumali Gangajali Jamali Ditto Jamali Gangajali Ditto Kheri Mukri Gangajali Ditto Ditto Ditto Gangajali Cangajali Kheri Ditto Ditto Ditto Cangajali Kheri	Little weevilled Weevilled Destroyed by weevil. Lost,	59 63 62 61 59 62	41 0 42 0 40 0 37 0 40 0 39 6 35 0	Good, thin, long, white, semi-hard. Very fine, long berried, clean, hard, white. Fine, hard, small berried, white. Common, hard, white, mixed with earth. Good, small berried, red. Good, small berried, soft. Rough, hard, reddish, mixed with earth; wheat good, requires cleaning.	

Valuation of the Samples of Wheat, &c .- continued.

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	297	А	Parne	vah District.	-		Doodhi								
34 37 37	297 298 , 299	B C	1: :	:	-	_	Gangajali Jamali	•	-	Destroyed by wccvil.					
ļ			, Sonihal	Pergunnahs.								1			
4	$\frac{210}{211}$	-	Rajmahal Ditto -	÷ _ •	-		Gangajali Jamali	-	-						
ļ	212 213		Deoglair Doomka	• •	-	-	Galıu Jamali	-	•	Destroyed by weevil.					
				GFORE DIVISI		2				2					
1														1	
	162	5	Hazaree	bagh District.	_	C ·	Goue	_			-	63	41	6	Fine, small berried, red, yellowish, clean.
			Lohard	ugga District.	18	•						1			
1	160	3 1		·.	-	A C	Doodhin	-	-		-	$62 \\ 63\frac{1}{2}$	44	0	Fine, soft, white, few reddish grains. Fine, soft, clean, stout, red.
1	$158 \\ 159$	2		-	-	<u> </u>	Jogra Chumpapur	- i -	-	Destroyed by weevil.		003	4.4	. 0	
:			Manbh	oom District.					- 100				ľ		
	161	4			-		Choonia '	•	-	Destroyed by weevil.					
			Singbh	oom District.											
	163	6		•	-	С	Lalka	N. 2 -	-		-	61	40	0	Fine, small berried, clean, red.
			PATN	A DIVISION.											
			Chump	arun District.											
	$157 \\ 156$	$33 \\ 32$			-	Λ	Dawoodie	-	-		•	63	47	0	Fine, soft, small berried, white. Good white, about No. 2, some linseed.
	154	30	: :	-	-	A"C	Jamalkhani Hada	2 	-	Weevilled -	-		40) 6) 6	Fine, mixed, but few linseed grains, rather better than No. 2.
	155	31		» •	-	С	Lalka				•	62	38	0	
			Gya	District.						· · · · ·					other seeds, requires cleaning.
	150 149	$\begin{array}{c} 26 \\ 25 \end{array}$: :	-	-	A C	Dawoodie Lal -		-		-	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	45	0 6	Fine, white, soft, some rice, mixed, like Californian. Fine, stout, soft, short berried, red, little linsced.
Ì				11	-	0	Jui -	. :	-		2	J JI	1.41	U	a me, stort, sort, short berned, red, more miscen.

vum-	Sam- ived.				Des	cription of Sam	ple.		1 12	2		2	Value	tion and Report.
Valuation Num- ber of Samples.	Number on Sam- ples as received.	Loca	ality.		Colour and Hardness.	Nai	ne		Conditi	іоп.		Weight.	Value.	Remarks.
141	17 16	Patna	District.	-	A	Maghie Ditto	-			-	-	64 <u>1</u> 63	s. d. 45 6 41 6	Fine, soft, white, mixed with some reddish white. Good, mixed, nearly white, about No. 1.
139	15		-	-	?) ;5	Jamali		Wee	rilled		-	$62\frac{1}{2}$	40 0	Good stuff, small berried, white, mixed with barley and gram.
136 135 137 138	$12 \\ 11 \\ 13 \\ 14$		Ē			Maghie Lalee Doodhia Maghie		Littl	weeviled		-	61 62 <u>1</u>	39 0 37 6	Good, soft, small berried, and red. Good, red, dirty, semi-hard, mixed with gram and linseed.
152	28	Sarun .	District.	'	•		• ³³¹		1	-			20020416 2012	
153 151	29 27		-		A AC C	Doodhia Jamalia Lalee	-	-	weeville weeville	-	-	59 <u>1</u> 61 63	38 6 -37 6 40 0	Good, soft, mixed, some gram.
		Shahabaa	ł District.											
144 142 143	•20 18 19	:	:	-	A Č	Doodhia Hurha Jamalia	:	Wee	rilled - -	-		62 64 62	47 0 41 6 38 6	Fine, soft, white, like Californian. Fine, stout, soft, some gram. Fine, soft, red, some gram, few damaged grains.
			District.								*			
146 147 132	22 23 8	Mozaffarpur - Ditto - Durbhunga -	-	-	A AC A	Lal Desi Doodhia Haraha	-		illed	÷	• • •	63 64 64 <u>1</u>	44 6 43 0 41 6	Fine, clean, small berried, mixed, white. Fine, clean, semi-hard, red and white. Very clean, a few grains of linseed, equal to
129 128 145 126 149 127 125 133	5 4 21 2 24 3 1 9	Saraisa Durbhunga Mozaffarpur - Ditto - Ditto - Ditto - Ditto -			AC B C C D D	Sarboa Hada Jamalkhani Ditto Hurrah Sarbab Jamalkhani Hadhee	:	A lii	lle weovil - - -	led -		$ \begin{array}{r} - \\ 61 \\ 64 \\ 61 \\ 63 \\ 62 \\ 62 \\ 62 \\ 1 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2$	38 6 38 0 41 6 39 0 41 0 40 6 40 0 37 6	No. 1. club. Ordinary, mixed, scarcely No. 2, mixed with gram. Good, mixed with barley, equal No. 2. Fine, regular, small berried, hard, white. Good, hard, flinty, white. Fine, clean, small berried, semi-hard, red. Fine, clean, semi-hard, red. Fine, semi-hard, red. Stout, hard, dingy red.

Valuation of the Samples of Wheat, &c.-continued.

	130 134 131	6 10 7	Saraisa - Seripeer -	•	•	39 27	Ditto Ditto Herraha	•	 Lost.	-	-		0 6	Common, hard, small berried, red, mixed with barley. Small berried, hard, red, mixed with barley.
			NORTH-WEST	F PROVIN OUDE.	CES			×						
			Benares	DIVISION.										×
	713 313 791 314	=	Azimgar)	h District.		А <u>с</u>	- Daudi Ditto Lalia Ditto	-	 Weevilled Destroyed by weevil.		61 64 —	43	0000	Finc, white, superior No. 1. Fine, white, small berried, clean. Good, red, soft.
D 4	703 747 781 822		Benarcs	District. - - -	-	A A"C C	Daudia Desi Lal - Mungeri	-	 Much weevilled		1111	41 40 39	0660	Fine, white, coloury, soft. White, about No. 2. Small berried, mixed white and red, soft. Good, red.
	525 526 523 524		· ·	:	-	33 33	Gehun lal Gehun disi Dandi Mungen	• • •	 Weevilled - Ditto Lost. Destroyed by weevil.	-	60 56 <u>1</u>		0	Soft, good, large berried, chieffy red, mixed with oil sceds. Small berried, little shrivelled, weevil, and linsee d.
ĺ			Basti L	District.										
	715 764 487 823 776 484 485 486						Gangajali Daudi Lalia Ditto Samudhra Gangajali Daudi Samodhwa	-	 Weevilled Much weevilled Much weevilled Destroyed by weevil.			43 40	000000	Fine, white, superior No. 1. White, about No. 1. Fine, small berried, red, soft. Ordinary red, small berry, mixed, white. Good, red, some white.
			Ghazipur	· District.										
	679 307 308 810			-		A Č "	Daudi Ditto Lalia Ditto	-	 Weevilled Ditto Much weevilled	-	56 <u>1</u> 62	40 39	6 0 0 0	Good, white, about No. 1, but thin. Good, white, soft, good colour, rather dirty. Good, red, but dirty. Good, red, soft.

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5	Num. nple.	Sam-		Des	cription of Sample.			Val	untion and Report.
2	Valuation Num- ber of Sample.	Number on Sam- ple as received.	Locality.	Colour and Hardness.	Name,	Condition.	Weight	Value.	Remarks.
	377 792 376	=	Gorahlapur District.		Lalia Ditto Dandi	Weevilled Destroyed by weevil.		s. d. 40 0	Fine, red, mixed with white, clean. Good, red.
a 	334 785 335 336 784 337 694 816		Mirzapur District.	A C " <u>B</u> 	Dandi Lalia bargehuna - Lalia Ditto Lalia bargehuna - Daudi Lal	Weevilled Weevilled Much wevilled Destroyed by weevil.	62 601 60	43 0 40 0 39 0 38 6 36 0	Fine, small berried, soft, white. Good, red, soft. Good, stout, red, dirty, gram, &c. Good, red, somewhat rough. Red, long berry, hard.
	343 344 777 345 345 247 828 827 348 827 348		ALLAHABAD DIVISION. Allahabad District.	C "" ""	Dandi Raksa Ditto Burgehuna Pisi Bargehuna Bargehuna Kathia Murwa Kathia			44 6 40 0 41 0 39 0 38 6 37 0 36 0	Fine, small berried, soft, white. Fine, mixed with red, like Polish. Good, red, soft. Good, red, soft, rough, large berried. Good, red. Good, red. thin. Long berried, red, roughish. Inferior, red, dirty, thin.
	704 529 550 551		Banda District.	A AC A	Pisi gangajali - Pisia lal kattria - Haveraj gangajali - Pisia gangajali -			47 0 41 0 39 0 38 6	Fine, white, superior, No. 1, soft. Rather mixed, large berried, about No. 2, few gram, and damaged, and grains. Rough, white, gram, rather dirty, Good, white, mixed, gram, rather hard.

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L 834.	882 528 527 740 750					D ,,	Kathia laltan Ditto Kathia Shuo Gangajali Pisi lal kathi	rn -	-	Weavilled Ditto	•	58 55 <u>1</u> 60	$ \begin{array}{r} 37 & 0 \\ 32 & 0 \\ 26 & 0 \end{array} $	Red, long berry, hard. Very largo berried, rough, land, red, gram. Largo berried, hard red, grams, unlit for milling.
	642	-	Cawnpor	e District.	-	А	Muria	-	-	Weevillod -	-	-	48 0 (without weevil.)	Very line, white, stout, heavy, soft.
F.	$\begin{array}{c} 621\\ 637\\ 544\\ 5665\\ 695\\ 513\\ 947\\ 949\\ 9521\\ 789\\ 547\\ 521\\ 5136\\ 517\\ 516\\ 517\\ 518\end{array}$	+003+				""""""""""""""""""""""""""""""""""""""	Desi Mudia Tamva Ditto Seta Muria Madnain Dasce Doodh Dasce Gooju Gunga Puchan Anokha Vilaiti Pisia Ditto Kuthia Ditto Seta Vilayoti			Much weevilled Weevilled Weevilled Ditto Ditto Ditto Ditto Much weevilled Much weevilled Destroyed. Destroyed by weevil		$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Fine, white, superior, No. 1, soft. Fine, white, superior, No. 1, largo berry. Fine drop wheat, probably weighs 64 lbs. Small berried, white, better than No. 1. White, about No. 1. White, about No. 1. Good white, but semi-hard. Hardish white, mixed, some red. Mixed with barley. Mixed with barley. Inferior, mixed with barley. Inferior, mixed with barley. Inferior, mixed with pease. Hard, largo berried, clean, white. Long berried, hard, part soft. Fine, red, largo, clean, long berried. Inferior, red, long berry, hard, rough. Very inferior, red, mostly hard, flinty, gram.
	639	-	Futtelipor	e District.		А	Pisi awwal	- ,	-	Much weevilled •	• 0		46 0 (without woovil.)	Fine, white, large berry.
	670 669 751 732 453 458 930					" " A"C C D	Mumlwa			Weevilled Mixed with barley Weevilled			$\begin{array}{cccccccccccccccccccccccccccccccccccc$	White, superior, No. 1, soft. White, about No. 1. White, nearly No. 1. White, fully No. 2. Fine, white, nearly mixed white and red. Very inferior, red, small, gram, barløy, linseed, unfit for milling. Red, long berry, haed.

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Num- mple.	Sam- eived.		Description of Sample.			1000	Vari	ation and Report.
Valuation Num- ber of Sample.	Number on Sam- ple as received.	Locality.	Colour and Name. Hardness.		Condition,	Weight.	Value.	Remarks.
453 454 456 457	-	Futtehpore District—cont.	- Pissia - Ditto - Lalia - Seta or Gaugi	- - ajali -	Destroyed by weevil.			
374 730 780 375		Jounpore District.	A Daudi - "Ditto - AC Lalia - "Ditto -		A few weevils		s. d. 43 0 43 0 40 0 38 6	Fine, small berried, soft, white. Good white, some red. Good red and white, mixed. Good mixed, fully No. 2, dirty, with seeds.
r 466 630 614 469 742 468 739 467		Roy BAREILLY DIVISION. Pratabgarh District.	A Mundwa - "Setua - "Mundia - "Satwa - "Majua-phul H "Rakasiva - "Roksua - "Nujwa or Phu	:	Some weevil Much weevil Weevilled Destroyed by weevil.	$ \begin{array}{r} 62\frac{1}{2} \\ 60 \\ \hline 62\frac{1}{2} \\ \hline 61\frac{1}{2} \end{array} $	$\begin{array}{cccc} 47 & 0 \\ 46 & 6 \\ 46 & 0 \\ 44 & 0 \\ 44 & 0 \\ 42 & 6 \\ 41 & 6 \end{array}$	Fine, clean, round, white, like Californian. Fine, white, superior, No. 1. Fine, white, small berry, good colour, superior, No. 1. Fine, soft, white. Fine, white, about No. 1. Good small, white, better than No. 1. White, about No. 2.
685 615 761 331 332 333		Roy Bareilly District.	A Setua - "Mundia - A C Lalia - - Seta - Lalia - - Murwa -	:	Much weevilled Destroyed by weevil.	111	42 6 41 0 37 0	White, about No. 1. White, about No. 2. Poor, ordinary, mixed.
684 711	=	Sultanpur District.	A Dina Shahi - » Samdhara -	:	: : : :	11	$ \begin{array}{ccc} 43 & 6 \\ 43 & 6 \end{array} $	Fine, white, about No. 1, soft and hard, mixed. White, about No. 1.

Valuation of the Samples of Wheat, &c .- continued.

	712 721 762 652 352 353 354 355 356 357 358				 "" "B D A 	Daudia Mundwa Sitwa Vilaiti Lalia Daudi Dipasahi Samodhaw Setwa Lalia Mundwa Australian	-	 Weevilled Destroyed by weevil.		1111	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Good, white, nearly No. 1. White, about No. 2. Long berried, hard.	
E 2	$\begin{array}{r} 489\\ 488\\ 702\\ 738\\ 722\\ 490\\ 494\\ 773\\ 492\\ 493\\ 772\\ 493\\ 772\\ 493\\ 491\end{array}$		FYZABAD D Bharaich - - - - - - - - - - - - - - - - - - -		 A " " " " " " " " " " " " " " " " " " "	Daudi Sambodhw Sandhua Mundia Chastia Gangajali Mundia Raksia Kathia Raksi Lalia Chunia Lalia	a - - - - - - -	 Weevilled Fow weevils Weevilled Much weevilled Destroyed by weevil.		$ \begin{array}{c} 61 \\$	$\begin{array}{c} 46 \\ 46 \\ 43 \\ 42 \\ 42 \\ 42 \\ 42 \\ 41 \\ 41 \\ 41 \\ 40 \\ 40 \\ \end{array}$	 D. Fine, soft, regular, clean, white. D. Fine, white, colory. D. Good, white, about No. 1. D. White, about No. 2. D. Good, soft, small berried, clean, white, like Danzig. D. Small berried, good, soft, white, better than No. 1. D. White, fully No. 2. D. Fine, small berried, white aud red, mixed. D. Small berried, good, soft, white, better than No. 2. 	25
-	708 719 718 330 325 329 324 793 794 326 327 328		Fyzabad 1 - - - - - - - - - - - - - - - - - - -	District. - - - - - - - - - - - - - - - - - - -	 A " " " " " " " " " " " "	Safed Daudi Gangajali Safed Kathin lali Lalia Ditto Samadha Daudi Samodhwa Gangajali		 Weevilled Mixed with oilseeds, & Weevilled Ditto Ditto Distroyed by weevil.	ie	$ \begin{array}{c} $	44 43 43 42 40 40 40 39 39 39	 Fine, white, about No. 1. Fine, white, about No. 1. Fine, white, mixed, long berried. Fine, white, soft, regular, little dirty. Good, white, mixed, hardish. Good, mixed, mostly hard. 	

Nuna- mple.	eired.		Dos	cription of Sumple.		-		Valuation and Report.
Valuation Num- ber of Sample.	Number ou Sam- ple as received.	Loculity.	Colour and Hurdness	Numo.	Condition.	Weight.		Remarks.
		Gonda District,					s. d.	
767 682 768 395 393 396 394 392 802 818			A B A B	Daudi Ujra Gangajali Ujra or Satua - Samodwha Gangajali Daudi Ialia Samodwha Ialia		$ \begin{array}{c} - \\ - \\ 60 \\ 62 \\ 61 \\ 63 \\ 62 \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ - \\ -$	45 6 44 0 42 6 42 6 39 0 41 0 38 0 39 0 39 0 39 0 39 0	White, superior No. 1. Good, white, about No. 1. White, nearly No. 1. Fine, soft, white, rather dirty. Good, white, mixed, hard. Good, white, fully No. 2, mixed with seeds. Fine, clean, regular, mostly hard, white. Good, hard, white, mixed, hard, red. Good, red. Ordinary, red.
		LUCKNOW DIVISION. Barabanhi District.		N 0 10				
741 709 782 710 367 755 366 368 369 370 371 372 373				Gangajali safal Lalia Sagarha Muria Kathia Nurun L'hul Khaja Gangajali. Lalia sakraha - Kathia Dina Sahi - Sita Fhul Khaja	Weevilled Ditto Ditto Ditto Ditto Destroyed by weevil.		44 0 43 0 39 6 39 0 41 0 39 0	White, about No. 1. Good, white, about No. 1. Ordinary, white. Good, white and red, mixed. Fine, mixed, hard, white. Good, red, hard, mixed with soft white.
658 683 474 479 748		Luchnow District.	17 17 19	Kathaa Sweta Seta Kathaa Gangajali		<u>60</u>	44 0 44 0 43 6 43 6 43 6 43 6	Fine, white, about No. 1. Fine, white, fully No. 1, semi-hard. Fine, small berried, soft, white. Good, white, better than No. 1. White, about No. 1.

Valuation of the Samples of Wheat, &c.-continued.

	766 476 477 475 478 770		-		 Å B A C B B C	Tamra Gangajali Dina Sahi Tamh Lalia Dina Shahi	-	 Partly eaten Few weevils Much weevils	 	$\begin{array}{cccc} 42 & 6 \\ 41 & 0 \\ 40 & 0 \\ 42 & 6 \\ 39 & 0 \\ 40 & 6 \end{array}$	Good, white, nearly No. 1. Good, white, mixed with clear grain, about No. 2. Good, mixed, rather better than No. 2, some barley. Fine, clean, hard, white, few tares. Good, hard, large berried, white. Good, red, some white.
	859 861 652 672 778 864 650 860 860 860 863 863 863		Unao Dii - - - - - - - - - - - - - - - - - -	strict. - - - - - - - - - - - - - - - - - - -	 A "" A°C A B "	Sanom Marua Muria Saleda Desi Ditto Saman barg Ditto Marua Seta Desi	ohuna	 Wevilled - Ditto - Weevilled - Insufficient for report, Destroyed by weevil, Insufficient for report,		$\begin{array}{cccc} 48 & 0 \\ 46 & 0 \\ 46 & 0 \\ 45 & 0 \\ 40 & 6 \\ 39 & 6 \\ 41 & 0 \\ 40 & 0 \end{array}$	Fine, white, like Californian but harder. Fine, white, fully No. 1. Mixed, white and red, soft. Good, soft, white, but mixed with inferior large herry.
ET U	333 341 667 759 707 668 619 340 339 342		SITAPUR DI Hardui Di - - - - - - - - - - - - - - - - - - -		 A ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,	Seta Mundia Sweta Kathia Daudi Sambharia Muria Samharia Daudi Kathia		 Weevilled Weevilled Ditto Much weevilled Weevilled Destroyed by weevil.	 62 62 	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Fine, small berried, soft, white, superior No. 1. Fine, white, about No. 1. Fine, white, about No. 1. Good, white, about No. 1. White, about No. 1. Fine, white, about No. 1.
	386 700 774 717 885 775 391 819	 •	Kheri Di: - - - - - - -	strict.	 A " " " " " " " " " " " " " " " " " " "	Sitia Ditto Kathia Sambharia Ditto Muria Gajra Gajav	-	 Weevilled Weevilled		45 0 43 6 43 0 42 6 39 0 39 0 41 0	Good, white, about No. 1. Good, white, about No. 1. Good, white, about No. 1. Fine, round, clean, regular white, better than No. 1. Mixed, white and red, small berried.

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um-	Sam- ived.			2		Desc	ription of Samp	le.	1	* * _*	i.		1	Valuation and Report.
Valuation Num- ber of Sample.	Number on Sam- ple as received.	50 14-00	Loc	ality.		Colour and Hardness.	Nan	oe.	- Conditi	on.	We	eight.	Value.	Remarks.
1			Kheri Dis	strict_cont.					and a second				s. a	V De
821 820 390 387 388 389			•		-	C Ď	Lalua Sagarhei Sikurha Muria Kathua Lalua		Mixed barley	A. 1920		_	s. a 37 6 37 (26 (Ordinary red, some barley.
			Sitapu	District.						9		2		
350 665 349 696 693 351		-				A "" " "" "	Mundia Muria Lalia Ditto Setua Satua		Wcevilled	-	- - - -		46 (46 (43 (43 (43 (43 (42 (Fine, white, soft, superior No. 1. Fine, soft, white. Good, white, about No. 1. White, about No. 1.
2 2 5				DIVISION. District.	2			٠		1				a an
472		-		-	-	AB	Pisia white				- 0	$62\frac{1}{2}$	40 (Good, clean, long berried, white, much mixed with
473 814 824 471 470				•	-	C C D "						61 ¹ / ₂ 61 60 ¹ / ₃	$\begin{array}{cccc} 41 & 6 \\ 39 & 0 \\ 37 & 6 \\ 34 & 0 \\ 32 & 6 \end{array}$	Good, soft, red, long berry. Long berried, red, hard, some soft. Rough, long berried, mixed, hard, red.
1			Jhansi	District.										
649 317 786 315 316					-	B Č D	Bakasia Baugasia Pisi Kathia Pissi		Weevilled Ditto -	-		59 60	39 C 38 6 39 6 34 C	Long berried, hard flinty, like Cubanca. Red. long berry, soft.

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	$\begin{array}{r} 636\\ 829\\ 448\\ 749\\ 449\\ 646\\ 645\\ 446\\ 817\\ 451\\ 447\\ 450\\ 452\end{array}$		r District.	A , , , , , , , , , , , , ,	Pisi duem - Katbia - Bhusra - Chikrasia - Jalah - Hasia mkasia Katbia - Pisi lal - Pisi lal - Jalalia - Jalalia - Hanzia bangrasia Pissi safed -	 Weevilled Much weevilled Ditto Weevilled Weevilled Destroyed by weevil.	 $ \begin{array}{c} $	45 0 43 6 38 0 36 0 35 0 40 0 39 6 33 6 40 0 36 0	Inferior mixed, rough, long berry. Long berried, hard, part soft. Long berried, hard, thin Common, rough, flinty, white. Fine, round, red.
Е 4	623 319 622 323 752 322 807 808 318 320 321 753		Division. District. - - - - - - - - - - - - - - - - - - -	A , , , , , , , , , , , , , , , , , , ,	Ratta - Gajar - " Gajar lal - Gajar - Laljaware - Lalia - Lal Khali - Mandia - Rata - Lal Kahis -	 Weevilled Weevilled Destroyed by weevil.	 63 62 62 	42 0 42 0 41 0 39 0 38 6 40 0 40 0 38 6	Fine, long berried, semi-hard, white. White, about No. 2. Good, mixed, long berried, white and red. Mixed red and white. Good, red, few barleys, tares, &c.
	496 731 497 689 627 504 505 733 503 736	Etawah	District. - - - - - - - - - - - - - - - - -	- A "" "" "" "" "" "" "" "" ""	Gajar - Muria - Anokha - Gajar - Anokha - Lal pisia - Madina - Pisia - Chelkna - Madnainya -	Weevilled Much weevilled Much weevilled	 $ \begin{array}{c} 61 \\ 59 \\ 63\frac{1}{2} \\ - \\ 58\frac{1}{2} \\ 62\frac{1}{2} \\ - \\ 61 \\ - \\ - \\ \end{array} $	44 6 44 0 43 6 43 6 42 0 42 0 41 0 39 6	Good, white, fully No. 1. Fine, white, long, semi-hard, clean. Good, white, about No. 1. White, about No. 1. Good, white, large berried, mixed gram. Fine, white, large berried, mixed, red. White, about No. 2.

lum- ple.	Yed,				. Desc	cription of Sam	ple.	e						V	aluation and Report.
Valuation Num- ber of Sample.	Number on Sam- ple as received,		Locality	• •	Colour and Hardness.	Na	ime.		Conditio)n.		Weight.	Valu	ie.	Remarks.
		Et	awah Distri	i <i>ct—</i> cont.					N.	4			8.	<i>d</i> .	
498		-	-		A	Mundia	-	- Miz	ced barley	and gram	-	60		0	Large berried, good, white, few damaged grains, 42s. it cleaned.
806			-		C	Kathia			-	3 -	-			6	Good, red, soft, long berry. Fine, large berried, mixed, mostly red, clean.
501		-		-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Laltambia	-		-			$62\frac{1}{2}$	38	6	Fine, large berried, mixed, mostly red, clean.
811	<u></u>	12				17	3 13	-	1000 - 1000	1 7 0	•	59		0	Ordinary red.
499		-		-	1	Kathia	8 	- We	evilled	-	-	$62\frac{1}{2}$	36	0	Large berried, soft, red, fine, but mixed with small gram.
500		-	-		_	Samaria	-	· lin	estroyed by	waavil		2	- •		8
502						Sukhdas		- 15 D	saroyeu by	y weev 11.					
734	_	÷.	÷	•	—	Chilkna	1	- Los	t.						
			Etah Dist	rict.											4
430			-	· .	A	Mundia	·2	- Fei	v weevils	2	-	62	47	0	Fine, soft, clean, white, like Australian.
632	_					Sambharia			evilled	-				0	Fine, white, like Californian. White, superior No. 1, soft, like Californian. Fine, soft, clean, white, like Spanish.
671		100			>> 11	Ratta				-	-		46	0	White, superior No. 1, soft, like Californian.
431	10000	-	-		"	Samario			-	3 4 3	-	621	43	n	Fine, soft, clean, white, like Spanish.
434		-	•	- :-		Rata		- Mu	ch weeville	ed -	-	60 -	42	6	Fine, soft, large berried, white.
432		-			AB	Gajar	.	- -			- [62		6	Fine, soft, white, mixed with hard.
673		-	.		A	Gajah			evilled	-	-	<u> </u>		0	Fine, soft, large berried, white. Fine, soft, large berried, white. Fine, soft, white, mixed with hard. White, about No. 2.
433	-	-	-	÷ •	AC	Katha		- Af	ew weevil	в -		62		0	Good, mixed, mostly hard, about No. 1. Long berried, flinty, hard, like Cubanca. Long berried, good.
435	—	-	-		B	Bhidia				: =)	-	61		6	Long berried, flinty, hard, like Cubanca.
648	-	-	-	-	č	Bhadia	•		•	-	-		40		Long herried, good.
771		-		5 	C	Kathia	-		-	-	-	-	39	0	Ordinary red, some white.
		F	urruckabad .	District.											·
661	·	3=0	-	• s	A	Muria		- Mu	ch weeville	ed -	-	-	42	6	White, about No, 1.
511		1.00	-	-	17	Mundia	S e - 28	- We	evilled	-	- 1	60 <u>1</u>	42	0	Good, clean, white.
662)	-	**	Sambharia		- -			-	_	41	6	White, about No. 2.
508	-	-		-		Safeda	•			-	•	57	41		Good, soft, white, but very thin.
714		-	1 2	-	A'C	Sambharia				-	•		41		Thin, white, about No. 2.
$\frac{510}{743}$		-		-	Access to a construction of the construction o	Gajar	-	- We	evilled	160	-	60 <u>1</u>	40	0	Long berried, mixed, rather hard. Mixed, red and white.
512		1.7	-		·	Ditto Samaria			-	-	-	55	39 37	0	Small, thin, shrivelled, white.
509					AB	Ditto	-	- we	evilled ittle weevil	11.07		55 60 1	41		Good, hard, white.
	2	- T		_		Ditto		AI	the weevi	ned -	-	001	TI	~	Good, nand, sunce

L 854,	507 509 796 660	Muttra District,		Ditto Katha Kathia Sambharia	Ditto	611 40 0 60 39 0 61 38 6	Common, mixed, hard,
	631 303 304 760 790 815 306 305		- A - " - A C - A D - C - " " - D	Safeda Ditto Gajar Ditto Lal Lal awwal Lal Ditto	Wcevilled	$\begin{array}{ccccc} - & 46 & 6 \\ 60\frac{1}{2} & 41 & 0 \\ 61 & 39 & 0 \\ - & 38 & 0 \\ - & 40 & 6 \\ - & 39 & 0 \\ 60 & 30 & 0 \\ 61 & 32 & 0 \end{array}$	 Fine, white, soft, large berried, but dirty, mixed with barley, requires cleaning, Large berried, red and white, mixed barley. Mixed, white, soft, and red, hard. Good, red, soft. Good, red. Common, long berried, rough, red, unfit for milling.
F	635 634 380 674 381 634 382 379 653 378 383 383 384	Maiapoori District	A , , , , , , , , , , , , ,	Sambharia	Much weevilled Much weevilled Ditto. Destroyed by weevil.	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Fine, white, like Californian. Fine, white, clean, long berried. White, about No. 1. Fine, soft, white. Good, white, about No. 2. Fine, long berried, mixed, red, hard, soft, white. Long berried, finty, hard.
	625 677 692 706 628 658 659 737 758 540	Rommkund Division Bareilly District.	- A - " - " - " - " - " - " - " - " - " - "	Sambharia Pisia Katha Sambharia Muria purnaria - Kathia paria - Daudi Mundia Bhamuan - Bhambua (2) -		$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Fine, white, superior No. 1, soft. Fine, white, superior No. 1, soft. Fine, white, superior No. 1, soft. White, about No. 1, White, about No. 1. White, about No. 1. White, about No. 1. Good, white, about No. 1.

um-	am- ved,		Desc	ription of Sample.			. V	aluation and Report.
Valuation Num- ber of Sample.	Number on Sam- ples as received.	Locality.	Colour and Hardness.	Name.	Condition.	Weight	Value.	Remarks.
549 536 746 537 745 588 539 541 551 544 6450 547 548 542 809 543 545 552		Bareilly District—cont.	▲ - A°C A """"""""""""""""""""""""""""""""""	Katha (2) Mundia (1) - Ratua Mundia (2) - Gajra Bhambua (1) - Hansa Mund panwaria - Gajra Barlamba Pasia - Daudkhani - Katha panwaria - Katha panwaria - Katha (1) - Ditto Lalua pahari - Samaria (1) - Ditto (2) - Muria Surkh - Burlumba	Weevilled Ditto Weevilled Very much weevilled Weevilled Ditto Ditto Very much weevilled Weevilled Ditto Ditt	$\begin{array}{c} 60\frac{1}{61} \\ 61 \\ \hline \\ 61 \\ 59\frac{1}{56} \\ 59\frac{1}{56} \\ 61 \\ 59 \\ 60\frac{1}{2} \\ 62 \\ \hline \\ - \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Fine, white, about No. 1. Fine, mixed, about No. 1. Good, white, thin, about No. 2. Good, white, small berried, semi-hard, about No. 1. Thin, white, about No. 2. Fair, white, dirty, imperfectly threshed. Fair, thin, white, about No. 2. Fair, white, semi-hard. Common, white, partly hard. Thin, poor, white. Long berried, hard, good, white. Good, hard, white. Common, rough, hard, white. Common, hard, white. Fine, clean, red, fully equal, No. 2. Good, red.
$\begin{array}{c} 697\\ 698\\ 617\\ 656\\ 616\\ 687\\ 723\\ 724\\ 656\\ 783\\ 655\\ 655\\ \end{array}$		Budaon District. -	A "" " " " " " " " " " " " " " " " " "	Bhambua Muria Ratua Ratua Muria ratua - Ratua Muria Katta Sambharia Gajar Ratua	Much weevilled Very much weevilled Ditto Much weevilled	61 61 51 49 53 59	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Fine, white, superior No. 1, soft. Fine, white, superior No. 1, soft. Fine, white, superior to No. 1. Fine, white, like pearl barley. White, about No. 1. Good, white, superior No. 2. Good, white, about No. 1. Good, white, about No. 1. White, about No. 2. White, about No. 2. Long berried, hard.

			Mooradabe	ad District.												
$714 \\ 613 \\ 728 \\ 727 \\ 726 \\ 729 \\ 725 \\ 691 $		• • • •		-		A " " " " " " " " " " " " "	Muria av Mundia Mandwa Ditto Muna sa Safed Ratta aw Surkh Kathia	Kada fed		Some weevil			$ \begin{array}{c} 62 \\ -60 \\ 61\frac{1}{2} \\ 61 \\ 59 \\ -62 \end{array} $	47 46 45 45 43 43 40 39	0060660	Fine, white, superior No. 1, like pearl barley. Fine, white, small berry, good colour, superior No. 1. Fine, white, small berry, superior No. 1. Fine, white, small berry, superior No. 1. Fine, white, small berry, about No. 1. Fine, white, small berry, round, about No. 1. White, about No. 1. Ordinary, mixed red and white, soft. Good, red, mixed with white.
800 801	-	-	Shahjehanp	- ur District	-	"	Mitudwa		-		•	•	59	38	ŏ	Good, red.
735 690 705 480				:		A "" "	Muria sa Samba Daudi Ditto	ıfed - - -		Weevilled	:			44 44 43 43	0 6	White, fully No. 1. Good, white. Fine, white, about No. 1. Fine, small berried, soft, white, better than No. 1, few damaged grains.
779 483 482 481		•	-	-		AC Å B	Kathia Katha Mundia Sambhai		:	Weevilled	•	•	$59 \\ 60\frac{1}{2} \\ 60$	41 40 38 40	0 0	Good, white, mixed red, nearly No. 2. Good, mixed, about No. 2, soft, mostly white. Fine, white. Good, hard, white.
			, Kumaon Gurwhal	Division. District.			e.									•
620 803	-	-	:	-	-	A C	-	-	-	Much weavilled	l - -	-	52 60	43 38	6 6	Fine, white, about No. 1. Good, red.
618			Kumaon	District.	-	۸			_	Very much wee	avilled	-	_	43	6	White, about No. 1.
804	-	-			-	A C	-	-	•	Much weevilled	-		-	35	ő	Good, rod.
			MEERUT Aligurh			a.										×.
754 628 643 787 788			-	•		AD B C	Gajar Ratta Kathia Lal	•	-	Weevilled			60 58 57 53]	39 41 41 40 39	6 0 0	Mixed, white, soft, and red, hard. Good, hard, white. Long berried, hard. Good, red, soft. Red, long berry, soft.

ple.	on Sam-		•	2		Desc	ription of Sam	ple.		N	<i>.</i>		8		Val	nation and Report.
Valuation Num- ber of Sample.	Number on ple as rece		Locali	ty.		Colour and Hardness.	Nan	ie.		3	Conditio	D .	9	Weight.	Value.	Remarks.
459	-		Bulundshah -	r District.	-	А	Safed	× .	-	Sound	-	-	-	63	s. d 48 0	Fine, white, like Australian, soft, long berried.
463 640	-	-	-	:	-	"	Gajar Safed	-	-	-		-	1	. 631/2	47 0 46 6	Fine, white, like Australian, rather harder. Fine, white, like Californian, soft.
465. 638	=	-		-	-	**	Mendha Gajar		-	-	-	2	-	$\frac{62\frac{1}{2}}{}$	46 0 46 0	Fine, white, like Californian, clean, regular.
626 462	_		-	-	-	** **	Rutta Ditto	2	-				3	62 63	45 6 45 0	Fine, white, superior No. 1.
	-		 18	-	-	"		-	- 1		-	-				No. 1.
657 676	_	-	-	-	-	97 99	Munia Munda	-	-	Mach w	eevilled	-	-	_	45 0 43 0	Good, white, about No. 1.
460 651	=	1:	-	-	-	в	Munia Barba	-	- 1	-	•		-	61 <u>1</u>	41 6 42 0	Long berried, hard.
461 464		:	÷.			č	Ditto Gehun lal	۲ ۲	2	-	-	2 0			40 6	Very long, large, steely, white.
812		-	-	-	-	"	Lal -	-	-	-		-	-	*	40 0	Fine, red.
			Dehra Door	n District.	2											
681 680	=	12	-	-	:	A	Mihirta Ditto	7		-		1	-	=	45 0 44 0	
666 720	-	-			-	• "	Ditto Ditto	-	-		Ξ,		-	62	43 6	Good, white, about No. 1.
442	-	1:		-		33 33	Ditto	-	-	-	-	Ę	-	60 <u>1</u> 60 <u>1</u>	43 0 41 6	Good, small berried, part hard, white, about No. 1.
441 756		12		-	-	A D	Ditto (5) Ditto	-	-	-	-	-	-	61	41 0	Good, white, nearly No. 1.
437 439	=	1:	-	-	2	A "	Ditto (1) Ditto (3)	-	-	-	-	-	•	62 61	40 0 39 6	Good, white, semi-hard, dirty.
4.40	-	-		-V.	-	33	Ditto (4)	-	-	Mixed v	with ban	ley	-	58	22 0 to	Inferior, white, dirty, mixed with barley, unfit for mill ing.
438	_		-	-		в	Ditto (2)			Badly el					27 0	0
799 825		:			-	č	Lal gehun	-	-	-	-	1	-	60 —	39 0 39 0	Good, red.
798 436	-	-	-	•	-	37 37	Kusar Lal tondi d		-	-		-	-	_	38 0 37 0	Ordinary, red.
445	-	1:	•	•	-	,, ,,	Lal ta ride Kusal	r -	-			-		61	37 0 36 0	Good, reddish, mixed barley, dingy.

Valuation of the Samples of Wheat, &c.--continued.

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443 826 444			• -	-		Lal gelum Mibirti Mundla	5. 7.	-		-	60 59	33 30		Good, small berried, red, tares and barley, a few white grains, require cleaning. Inferior, red, dirty, barley.
397 629 403	111	Meerut 1	District. - -	-	A "	Safed Monda	-	, - -	: : :	-	$\frac{62}{62}$	48	0 0 0	Very fine, soft, white, like Australian.
641 399 701 401			:		25 57 53 53	Muria Gajar Ditto Chunia	-			- - -	$\overline{\begin{array}{c} 62\\ \overline{63} \\ 1 \end{array}}$	45 44 44 43	0	Fine, white, superior No. 1, stout. Fine, white, better than No. 1. Fine, white, fully No. 1. Very fine, small berried, round, white, regular, like pearl barley.
400 757 402 654 398 813					A [°] C B °C "	Gajar Ditto Barha Ditto Surkh Lal -					$ \begin{array}{r} 61 \\ 58 \\ 61 \\ \hline 61 \\ 61 \\ \hline 61 \\ 61 \\ \hline 61 \\ $	42 41 40 41 89	6 0 6 0	Good, white, mixed, red, about No. 1. Mixed white and red, small berry. Very long, large, steely, white (fine). Long berried, hard. Good, long berried, clean, red, about No. 1.
699 534 678 716 533 805 532 532 533		Muzaffarnugg	pur Distri - - - - - - - - - -	ct. - - - - - -	A "" "" "" "" "" ""	Safeda Ditto Mundia Gajra Meuda Sarkh Ditto Gajra	-		Weevilled Destroyed by weevill.			44 *43 42 40	00000	Fine, white, soft, small berried, better than No. 1. White, about No. 1. Good, white, about No. 2. Fine, clean, hard, thin berried, white. Good, red, soft.
310 663 769 312 309 797 311		Saharunpus 	r District. - - - - - - - -	• • • • •	A A [°] C BC C "	Monda Muria Gajar Gajra Surkh Ditto Daudkhani			Weevilled Much weevilled Weevilled Destroyed by weevill.		621 	38 40 40	0	Ordinary mixed red and white. Good, mixed, hard, white.

5	Valuation Num- her of Sample.	Number on Sam- plo as received.	Locality.							
5	1		× •	Colour and Hardness.	Name.	Condi	tion.	Weight.	Value.	Remarks.
5 5 5 5 5	595 592 588 590 594 589 591 593		AJMERE AND MHAIRWARRA. Mhairwarra Ditto Ajmere - Ditto Mhairwarra	в с " Д	Katha safed Kharcha baja Baja maigee Baja kharcha Katha lal Baja sajwa - Maigee baja Kath baja -	Weevilled Ditto		59 <u>1</u> 64 <u>1</u> 61 62 60 <u>1</u>	s. d. 40 0 42 6 41 6 41 0 37 6	Long berried, flinty, white. Long berried, soft, very fine, red. Long berried, soft, fine, red, yellowish. Long berried, soft, fine, red. Long berried, rough, flinty, red.
			PUNJAB.	-			e			8
			DELIII DIVISION.				2 7. 47			
			Delhi District.		16					
	273 274	=	Sonepal	A C	Gundun safed Gundun surkh	Weevilled	: :	$ \begin{array}{c} 65 \\ 60rac{1}{2} \end{array} $	48 0 40 0	Fine, white, like Australian. Fine, red, yellowish.
		<i>x</i> .	Gurgaon District.		4					
2	259	-	• • • •	С				64	41 6	Fine, yellowish, soft, red.
	260 268	-	Kurnool District.	<u>c</u>	Gehun lal -	Lost.		53 <u>1</u>	31 6	Inferior, thin, red, much mixed with barley and tares.
			HISSAR DIVISION.							
			Hissar District.			1				
2 2 5	296 229	=		<u> </u>	Kerletia Kathuiya gehun	Lost.		611	89 O	Good, small berried, red, semi-hard.

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	1	Rohtak	District.													
427 422 420 426		Barram land Canal land Jhapar - Well land	:	-	. C "	Red wheat Ditto Ditto Ditto	•	-	Weevilled Ditto - Ditto - Ditto -	•		62 61 60 59	39	0 6 0 0	Fine, red, yellowish. Good, soft, red, few grams and barley. Good, red, mixed with barley, unfit for milling. Good, long berried, red, very much mixed with barley, unfit for milling.	
428 429 421 423 424 425 267		Dahri land Baram land			р — — —	Ditto Bangra Red wheat Daud khan White whe Red wheat	i 1t		Ditto - Ditto - Destroyed by w Lost.	- - vee v il.	-	58 59 <u>1</u>	28 33	00	Good, soft, red, half barley, unfit for milling. Common, red, mixed with gram and barley.	
292 291 295 293 294	1111	Sirsa I Dabwali -	District. - - - -		A B C D	White Brown Nali - Brown Canal whea	- - t-		Weevilled	-		$ \begin{array}{r} 61 \\ 60\frac{1}{2} \\ 61 \\ 55\frac{1}{2} \\ 61\frac{1}{3} \end{array} $	45 41 38 33 36	0	Fine, soft, small berried, white. Good, hard, small berried, white. Good, soft, small berried, red. Common, red, mixed, gram and barley. Common, semi-hard, small berried, dingy red.	47
		UMBALLA Umballa			a											5
240 252 243 241 239 242 238		Naraingurh Manailla - Jagadhree - Hurnaal - Jehsulpuplee -			B C "				Weevilled Much weevilled Ditto Destroyed by w	•		62 <u>1</u> 61 61 58	39	0 6 0 0	Good, hard, small berried, white. Good, soft, small berried, red. Good, soft, red, yellowish. Small berried, red, some harley.	
1		Loodiana	District.				Ŷ									
244 258	_		- - District	-	C "	Red -	-	-	Little weevilled Weevilled	•		61 60		6 0	Good, red, hardish. Good, small berried, red.	
257 222	=	Barowli - Ditto -	-	:	A C	White Red -	-	-	: :	:	-	61 <u>1</u> 60 <u>1</u>	44 39	0	Fine, small, regular berry, soft. Good, red, semi-hard, small berry.	

Num- mple.	Sam- sived.		Desc	ription of Sample.	· · ·		Valus	uion and Report.
Valuation Num- ber of Sample.	Number on Sam- ple us received.	Locality.	Colour and Hardness.	Name.	Condition.	Weight.	Value.	Remarks.
247 251 245 246 248 250	11111	JULLUNDUR DIVISION. Hoskiarpur District. Unal tehsel		Daudkhani Lal kanak Berra Daud khani Ditto Lal kanak	Weevilled Much weevilled Destroyed by weevil.	62 <u>1</u> 60	s. d. 44 0 40 0	Fine, white, about half hard. Very fine, soft, small berried, red, yellow.
264	-	Jullundur District.	в	Kathee	Much weevilled -	56 <u>1</u>	3 3 O	Thiv, hard, white, much mixed with barley, require cleaning.
256 263 253		Kangra District.	A ""	Kunku Rungri	Weevilled Weevilled	59 621 56	41 0 41 0 36 0	Good, white, but dirty. Good, white, small berried, semi-hard. Inferior, dirty, thin, small berried, white.
276 277 278 279		UMRITSUE DIVISION. Umritsur District.		Vadanak Lal Gaddar Safaid	Destroyed by weevil.			
227	_	Gurdaspur District. Chahia	С	Lal konak		53	30 0 and 32 0	Common, red, mixed with barley and gram, unlit for milling.

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L 844.	265 - 228	-	Sialkot District. Pathanwalla Jamki	<u>c</u>	Dagar	Much weevilled Destroyed by weevil.	55 32 0	Inferior, red, yellowisb, much mixed with barley.
	226 269	-	LAHORE DIVISION. Ferozepore District.	<u>A</u>	· · · ·	Much weevilled Insufficient for report.	59 <u>1</u> 43 6	Good, soft, white.
	254		Gujranwalla District.	A	Vadanak	Weevilled	58 42 0	Long berried, white, partly red, semi-hard.
	249 255	_	Lahore District.	A C	: : :	Much weevilled Weevilled	$\begin{array}{c} 59\frac{1}{2} \\ 59\frac{1}{2} \\ 59\frac{1}{2} \\ 37 \\ 0 \\ \end{array}$	Fine, soft, small berried, white. Good, thin, small berried, red.
ç	230	_	Mooltan Division. Jhang District. Kaluwala	A C	Rodi kanak		60 41 0	Good, small berried, semi-hard, white.
	225	2 	Montgomery District.	-	Goni safed	Destroyed by weevil.		
	271	-	Mooltan District.	A	Makai kanak -	Weevilled	57 <u>1</u> 44 0	Fine, small berried, white, mostly soft.
	231 232 233 234 235 236 280 281 282		Muzaffargarh District. Alipur	-	White Makki Wadang Kohadu Sanawan Gaji White Paman	Destroyed by weevil.	-	

Nam- nple.	t Sam-		Des	cription of Sample.			Valuat	tion and Report.
Valuation Num- ber of Sample.	Number on Sam- ple as received.	Locality.	Colour and Hardness.	Name.	Condition.	Weight.	Value.	Re marks.
		RAWULPINDEE DIVISION. Gujerat District.		· .	6			
283 285 284		Mukiana - Hurbuspur	D —	Dagur Nikki Jawagul	Mixed with oilseeds Destroyed by weevil.	57 <u>1</u> 53	s. d. 38 0 35 6	Thin, long berried, white, dirty. Thin, inferior, long berried, hard, red.
272	-	Jhelum District.	с	Red		61 <u>1</u>	410	Fine, small berried, red, yellowish.
266	-	Rawulpindee District.	—	Red	Lost.			5.
410 408	=	Shahpur District.	C "	Rati Ditto	Few weevils Much weevils	61 59	41 0 37 0	Finc, large berried, rod, mixed with barley. Fine, soft, red, yellowish, mixed with barley, like Polish.
404 405 406 407 409				Dagar	- C1			Polisn.
		PESHAWUR DIVISION. Hazara District.	a Sina Sina					್
275	-	Haripur	-	Red	Lost.			
287 288 289	111	Namilzai	22	Kulangi Ditto Mirgandi Sindi	Weevilled -	57寺 56등 56등	42 0 40 0 37 0	Long berried, soft, rough, white. Long berried, white, semi-hard. Common, soft, dingy red.

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290 286 262	· · · · ·	Miranzai -	: :		Ail sarki Srah ganam White	Much weevilled - } Destroyed by weevil.	- 55 <u>1</u>	34 0	Inferior, thin, common, red.
224		Peshawur I Gurkhani	District.	D .		Chaffy	- 47	26 0 and 29 0	Inferior, hard, red, very thin and chaffy.
261 223 237		DERAJAT D Bannu Di Jahsil Mianwali			Marwat red - Destroyed by weevil.	Much weevilled - Ditto	- 58 <u>1</u> - 54	36 6 32 0	Common, soft, red. Inferior, red, mixed with barley.
270 G	-	Dera Ghaz 		— `*	White	Destroyed by weevil.			л.
$\begin{array}{c} 411\\ 412\\ 413\\ 413\\ 415\\ 414\\ 416\\ 417\\ 418\\ 419\\ \end{array}$		Bhakkar -		A "C" 	Zurd kanak - Rutti kanak - Surkh - Zurd kanak - Ditto - Surkh - Rutti kanak -	Little weevilled - Ditto Weevilled - Ditto Destroyed by weevil.	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	48 0 44 6 41 6 37 0	Fine, white, like best Californian. Fine, soft, white, good, many damaged grains. Fine, long berried, soft, red. Long berried, soft, red, mixed with barley.
		BOMBAY PRE					<u>8</u>		
angent state to be		Hyderabad .							
1111 1119 1104	92 100 85	Naushabro Hyderabad Moro taluk		A ** *	Shori Goji Makaien	Some weevils - Ditto - Much weevilled -	$ \begin{array}{cccc} - & 58\frac{1}{2} \\ - & 57 \\ - & 57\frac{1}{2} \end{array} $	$\begin{array}{ccc} 43 & 0 \\ 42 & 0 \\ 41 & 0 \end{array}$	No. 1, white. White. Good, white, No. 1.

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ple.	Sam-		Денс	tiption of Sample.			v	aluation and Report.
Valuation Num- ber of Sample.	Number on Sam- ple as recived.	Locality.	Colour and Hardness.	Name,	Condition.	Weight.	Value.	Remarks.
1110 1121 1100 1102 1099 1107 1101 1103 1105 1106 1109 1112 1113 1114 1115 1116 1117 1118 1120 1129	91 102 81 83 80 88 82 84 86 87 89 90 93 94 95 96 97 95 96 97 98 99 101 103	Hyderabad District—cont. Nauslahro Hyderabad Kandiero fal Ditto Ditto Moro taluk Kandiero tal Ditto Di		Shori Khudna Gaj Shori Kalani (bearded) - Pamban 		54	<i>s. d.</i> 41 0 37 0 39 0 39 6 39 6	Small berried, white. Mixed. Large berried, hard. Sinall, hard. Good, hard, white. Fine, soft, red.
1129 1136 1143 1134 1134 1139 1139 1135 1139	110 117 114 115 111 119 109 113 116 120	Kurrachee District. Schwan division Ditto Ditto Ditta Ditta Ditto Ditto Ditto	A " " " " " " " " " " " " " "	Popri, 1st sort Popri, 2nd sort Shori, 1st sort Gauji Kahnia, 1st sort Kahnia gaujo Pamban, 1st sort	Much weevilled Weevilled Ditto	55 52 52 54 53 53 52 55 55 55	38 0 36 6 36 0	Fine, white. Good, small berried, soft, white. Fine, soft, white, small berried. Good, small, white. Thin, white. Small, white. Hard, thin, white Soft, red.

Valuation of the Samples of Wheat, &c.-continued.

$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			Shori, 3rd sort - Red - Ditto - Samban, 3rd sort -	Destroyed by weevil.		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Shikarpur District. Sukkur taluk Mehar taluk Sigar taluk Shikarphur taluk Kakar taluk Rohri division Ratodero taluk Rohri division Ditto Sujawal tal Kambar tal Kambar tal Rabdarga tal Rabdarga tal Sigar tal Kambar tal Rabdarga tal Sigar tal Sigar tal Kambar tal Katodero tal Naushahro tal Naushahro tal Kakar tal Kakar tal Mehar tal Kakar tal Mehar tal Kakar tal Mehar tal Kakar tal Mehar tal Kakar tal Mehar tal Mehar tal Kakar tal Mehar tal Kakar tal Mehar tal Mehar tal Mehar tal Mehar tal Kakar tal Mehar tal Me	A " " " " " " " " " " " " " " " " " " "	Shori Ditto Ditto Khudain Shori Shori, 1st sort - Ditto Ditto Gahri gereri - Shori, 2nd sort - Shori, 2nd sort - Gaj Kahin Gaj, 2nd sort - Kahno Gaj Kahno Gaj Gaj Gaj Gaj, 1st sort - Jawah Shori Gaj, 1st sort - Shori Gaj, 1st sort - Shori Gaj, 1st sort - Shori Shori Gaj, 1st sort - Shori Gaj, 1st sort - Shori Gaj, 1st sort - Shori Shori Gaj, 1st sort - Shori Shori Shori Shori Gaj, 1st sort - Shori	Little weevilled - 58 Ditto - 571 Ditto - 58 Ditto - 59 Ditto - 55 Ditto - 55 Ditto - 57 Ditto - 57 Ditto - 58 Ditto - 57 Ditto - 58 Much weevilled - 58 Little weevilled - 58 Little weevilled - 53 Ditto - 531 Much weevilled - 55 Little weevilled - 55 Little weevilled - 55 Little weevilled - 55 Ditto - 531 Much weevilled - 55 Little weevilled - 55 Little weevilled - 55 Little weevilled - 57 Ditto - 56 Ditto - 56 Ditto - 57 Ditto - 56 Ditto - 57 Ditto - 53 Ditto - 53 Ditto - 53 Ditto - 53 Ditto - 53 Ditto - 53	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Very fine, white. Fine, soft, white. Short berried, fine, white, clean. Good, white. Short, round, white, like pearl barley. Good, white, No. 1. White. Fine, white. Good, mixed. Small, soft, white. Soft, white. White. Fine, hard, white. Hard, white. Hard, white. Hard, rough. Hard, thin. Hard. Hard. Hard. Hard. Hard.
	Thur and Parkur District.	B ·	Khahno, No. 2 -	Weevilled 57	36 0	Hard.
$\begin{array}{ccccc} 1124 & 105 \\ 1123 & 104 \\ 1125 & 106 \\ 1126 & 107 \\ 1127 & 108 \end{array}$			Khahno, No. 2 Shori Gori gaji, No. 3 Khodno, No. 4 Goji jowali, 5	Destroyed by weevil.		
1070 51	Upper Sind Frontier.	A	Shori shadi	Little weevilled 59	43 6	Fine, white, better than No. 1.

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Num mple.	Sam					Dese	ription of Sample.					_		Valuation and Report.
Valuation Nuru- ber of Sample.	Number on Sam- ple as received.		Loo	cality.		Colour and Hardness.	Name.		Condition.		Weight.	Value	2.	Remarks.
	52	Upp	er Sind	Frontier	-cont.				-				,	
1069	50	-	-		2	AC	Kaisri -		Little weevilled -	-	61	8. 40	<i>a</i> .	Good, mixed, little barley.
1063	44	-	-	·			Red -	•	Ditto	-	$58\frac{1}{2}$	39	6	Mixed.
1040	21	- 3	-	-	-	37	Kaisri garhi	-	Ditto	- 2	58	39	ñ	Mixed.
1047	28	-			-	»,	Shir (red) -		Ditto -	-	$55\frac{1}{2}$	39	2	Mixed.
1051	32		2				Kaisri jawati				002	0.9	2	Mixed.
1053	34	34			-	A	Kaisri jawan			- 1	62	38		Mixed with barley.
1053							Garhi sanbi -		Ditto	-	561	38	6	Mixed, good.
	35	-		-	8		Jawali -	-	Ditto	-	56 <u>ş</u>		6	Mixed, good.
1056	87	-	-		-		Gaj kaisri -	•	Ditto	-	$52\frac{1}{2}$	38	0	Mixed with barley.
1071	52		3 -			AC	-		Ditto		575	38	0	Mixed.
1021	5	-	-	5 -	-	,,	Garbi shori shuli	-	Ditto	~	56 J	37	6	Mixed.
1023	4	-	-	-	-	**	Achi shori -	1	Much weevilled -	~ (55 .	37	0	Good, white.
1049	30	-	-	-	-		Jawali -	-	Ditto	-	$54\frac{1}{5}$	37	0	Mixed with barley.
1058	39	- S -	-	· •	-	.,	Garhi sanhi -	-	Ditto	-	57	37	0	Mixed with barley.
1041	22	-	-	-	-	**	Kaisri garhi		Weevilled -	-	53	36	õ l	Mixed with barley.
1045	26	-		-	-	,	Shori jawali -	-	Ditto	-	56	36		Mixed with barley.
1020	1	-	-	-	-	1 -	Sanhi garbi jowali	- 1	Lost.			00	۰ł	briade frite barieft
1021	2	-	-	-	-		Ditto -		ביג <u>ו</u>		1		- 1	
1022	3	-	-	1	-		Sanhi shori -	-	1		1		- (
1025	G	1 -	-	_	-		Garhi shori -						- 1	
1026	7	-	-	-	-		Bhuri shori -						- í	
1027	8	-	-	-	-		Gai shori jawali	-					- 1	,
1028	9	-		·			Gaj shori jawali Khudain	-						
1029	10	-	12/5 1 - 2				Shori achi			1				
1030	11	-	-	-			Red, mixed -		1	1				
1031	12	-	-	-	2	1 20.111	Achi shori	-						
1032	13	-					Shori -	-		1				
1033	14	1 -	-				Show as chulk	-		1	30			
1034	15	-		21. 24.			Shori saf shuli	-						
1035	16	-	-	-		A CONTRACTOR OF	Shori -	-						
1036	17		2				Red jawali -	-	Destroyed by weevil.					
1037	is	-	-	-	-	1	Ditto -	-	1	1				
1038	19				-		Shori garhi -	- 1	1		3			
1039	20	12	•	-	-		Shori or bald	- 1	1					
1042	23	1 2 1			2		Shori jawali -	- 1	1				1	
1043	24	1.0	-	-	-	-	Jawali -	-		1	(
1011	25		2	-			Ditto -		1	- 1				
10.00			-		- -	(Saf shori jawali	-	1		1			

	1.516 10.18 10.50 1052 1055 1059 1060 1061 1062 1065 1065 1065 1066 1067 1068	27 31 33 38 36 41 42 43 45 46 47 49		Nates in				Shori jao Ditto Garhi sa Jawali k Achi jaw Jawali Shori ga Jwalai Shori jaw Red - Shori Shori jaw Ditto Ditto Shori saf	nhi jawali aisri cali - rhi - vali - vali - vali -	Destroyed b	y weevil.				
G 1	1 2 2* 3a 3b		Gondal Ditto - Limri - Ditto - Morvi Ditto -	- - - - ef the Bi	•••••	• • •	D " " "	-	-			 59 58 5 584 60 585 60 585	37 37 37 37 37 37	6 6 6	Hard, long berried, red. Hard, long berried, red, flinty. Large berried, red, flinty. Thin, long berried, red, flinty. Thin, long berried, red, flinty. Thin, long berried, red.
	$\begin{array}{c} 25\\ 19\\ 15\\ 22\\ 9\\ 7\\ 11\\ 13\\ 17\\ 12\\ 14\\ 18\\ 20\\ 16\\ 23\\ 26\\ 27\\ 6\end{array}$		Gadhada Bhab - Sihor - Botad Kundla Ditto - Sihor - Jalaja Sihor - Doskroi Gadhada Lilia - Daskroi Lilia - Umrala Bhab -	State.			B C C D 7 D 7 C C C C C C C C 7 D 7 7 7 7	Hasia Ditto Vajia Patalia Ditto Vajia Katha Ditto Patalia Ditto Vajia Patalia Kathia Ditto Vajia Ditto Vajia				 $\begin{array}{c} 601 \\ 600 \\ 588 \\ 598 \\ 598 \\ 611 \\ 29 \\ 611 \\ 29 \\ 577 \\ 581 \\ 12 \\ 577 \\ 581 \\ 12 \\ 577 \\ 581 \\ 12 \\ 577 \\ 581 \\ 12 \\ 577 \\ 581 \\ 12 \\ 577 \\ 581 \\ 12 \\ 577 \\ 581 \\ 12 \\ 577 \\ 581 \\ 12 \\ 577 \\ 581 \\ 12 \\ 577 \\ 581 \\ 12 \\ 577 \\ 581 \\ 12 \\ 577 \\ 581 \\ 12 \\ 577 \\ 581 \\ 12 \\ 577 \\ 581 \\ 591 \\ 577 \\ 581 \\ 591 \\ 577 \\ 581 \\ 591 \\ 577 \\ 581 \\ 59$	40 39 40 40 40 40 40 39 39 39 39 39 39 39 39 39 39 38	066600060000000000000000000000000000000	Long berried, white, mostly hard. Long berried, hard, white, flinty, mixed with reddish. Long berried, red, mostly soft. Long berried, red, semi-hard. Long berried, semi-hard, mixed, flinty. Long berried, red, nixed, semi-hard. Long berried, red, semi-hard, good. Long berried, red, semi-hard. Good, semi-hard, red. Small, semi-hard, red. Small, semi-hard, red. Long berried, red, semi-hard. Long berried, red, semi-hard. Long berried, red, semi-hard. Long berried, red, flinty. Long berried, red, flinty.

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Num-	Sam- eived		1)vsc	ription of Sample.				Valuation and Report,
Valuation Num- ber of Sample.	Namber on Sam- ple as received.	Locality.	Colour and Hardness,	Name.	Condition.	Weight.	Vidue.	Reinstks. ,
8 21 24 10 29 29		Districts of the Bhownuggur State—cont. Umrala	D "" ""	Chasia Katha Ditto Patalia	Destroyed by weevil.	585 575 58 58	N. d. 33 6 38 6 38 6 38 0	Long berried, red, flinty. Long berried, red, flinty. Long berried, red, thin, bard. Long berried, red, flinty.
869 868 870		NORTHERN DIVISION. Ahmedabad District,		Chasia katba - Ditto Wadina	Much weevilled Destroyed by weavil.	59 54	$\begin{array}{ccc} 40 & 0 \\ 35 & 6 \end{array}$	White, long berried, mixed, hard and soft. Red, long berried, hard, yellowish.
214 220 218 217 221 219 215 215 216 4		Wagra taluk	A A ["] B B " " " D	Pota	Much weevilled Destroyed by weevil.	57 58 57 55 58 58 58 59 57 59 57 53	$\begin{array}{cccccccc} 42 & 6 \\ 41 & 0 \\ 41 & 0 \\ 40 & 0 \\ 39 & 6 \\ 38 & 6 \\ 38 & 6 \\ 38 & 6 \\ 36 & 0 \end{array}$	Long berried, white, like Spanish. Long berried, soft, white, like Spanish. Long berried, white, about semi-hard. Long, white. Hard, flinty, white. Long-berried, flinty, white. Long-berried, flinty, white. Long-berried, flinty, white. Long-berried, flinty, white, earthy. Long-berried, rough, red.
1008 1007 1009 1010	=	Koira District, Radoo taluk	D 	Doodkhani Katha Wajia Katha	Badly weevilled	54]	36 0	Uard.

x x

T. 22	Khandesh D	istrict.			1941				
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	 Bhadgaon - Nasirabad - Jamner - Nandurbar tal ' Ditto - Taluk Dhulea - Taluk Dhulea - Taloda - Taloda - Sanda - Edalabad - Taloda tal - Edalabad tal - Taloda tal - Taloda tal - Shabadu tal - Taloda tal - Shabadu tal - Taloda tal - Taloda tal - Shabadu tal - Taloda tal - Taloda tal - Shabadu tal - Taloda tal - Shabadu tal - Taloda tal - Shabadu tal - Sirpar tal - Sanda - Sanda - Sanda - Sanda - Bhusawal - Sanda - Taluk Dhulia - Chupra tal - Erandol tal - Chupra tal - Chupra tal - Jamner tal - Jamner tal - Bhusawal - Ditto - Edalabad - 		B " " " " " " " " " " " " "	Kalee Kusal - Bansi - Ditto - Pievale Pote Pievale Bansi - Bansi - Ditto - - Lal Kate - - Kate - Bansi - Berad Bansi - Berad Bansi - Bansi - Kati - Bansi - Kate - - Nun Bansi - Kate - - Nun Bansi - Kate - - - - - - - - - - - - - - - - - - -		Some weevil Ditto Weevilled Weevilled Ditto Slightly weevilled Badly weevilled Weevilled Weevilled Weevilled Ditto	$\begin{array}{c} 62\frac{1}{2} \\ 61\frac{1}{2} \\ 58\frac{1}{3} \\ 59 \\ 60\frac{1}{2} \\ 59 \\ 60\frac{1}{2} \\ 59 \\ 60\frac{1}{2} \\ 59 \\ 57 \\ 60 \\ 57 \\ 60 \\ 58\frac{1}{2} \\ 56 \\ 57 \\ 62 \\ 58\frac{1}{2} \\ 61 \\ 57 \\ 61 \\ 56 \\ 61 \\ 61$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Good, clean, regular, white. Fine, stout, long berried, hard, white. Long berried, flinty, white, fine. Good, long berried, flinty, white, fine. Good, long berried, flinty, white, fine. Small, semi-hard, white. Fine, hard, white. Long berried, hard, flinty, good, white. Long berried, hard, white, good. Long berried, flinty, rough, mixed. Long berried, flinty, rough, mixed. Long berried, flinty, white, earthy. Long berried, flinty, white, earthy. Long berried, flinty, mostly white. Long berried, flinty, mostly white. Good, flinty, white, earthy. Long berried, flinty, mostly white. Good, flinty, white, earthy. Long berried, mixed, mostly hard. Hard, mixed. Rough, hard. Long berried, red, flinty, good, red. Long berried, rough, flinty Long berried, flinty, good, mixed. Long berried, flinty, good, mixed. Long berried, flinty, rough. Long berried, flinty, rough. Dark, thin, red. Long berried, flinty, rough.

	uple.	r on Sam- received.		Desc	ription of Sample.				Valuation and Report.
Valuation]	her of Sample.	Number on ple as rece	Locality.	Colour and Hardness.	Name.	Condition,	Weight.	Value.	Remarks.
999 100 100 100 100 100 100	03 05 00 04 01 02		Nassick District.	B "" "" "" ""	Banshi, yellow - Kate Pote Pote, yellow - Banshi, rod Khuple Dawood Khani - Kate, red Pote, red and yellow -	Weevilled Ditto Ditto Much weevilled Weevilled Destroyed by weevil.	57 61 63 61 54 ¹ / ₂	s. d. 40 0 40 0 40 0 39 6 36 0	Very fine, hard, white. Very hard, dark white. Fine, hard, white. Fine, hard, white. Thin, hard, red, little husky.
101 101 101 101 101 101 101 101 101	13 14 16 15 18 12		Punch Mehals.	B "" "" ""	Daudkhani Katha malvi Gamadrov (1) - Ditto (3) - Ditto (2) - Katha (2) Daud khani (2) - Katha (1) Wajia	Little wcevilled Badly weevilled Ditto Ditto Destroyed by wcevil.	$ \begin{array}{c} 62\\ 61\\ 58\\ 59\\ 58^{\frac{1}{2}}\\ 58\end{array} $	42 0 40 6 40 0 39 6 38 0 37 6	Very fine, large berried, hard, white. Good, hard, white. Hard, white, good colour. Very good, hard, white. Good, hard, white. Hard.
96 - 96	53	Ξ,	Surat District. Taluka Bardki	111	Pota Hansia Katha	Destroyed by weevil.			а
4	43 44 45	111	Thana District.	B Č			59 57 61	40 0 38 6 38 0	Good, round berried, white, flinty, Thin, long berried, white, flinty. Good, large berried, red, yellowish.

	300 301 302		Southern I Ahmednuggur Belgaum I	r District. - -				} Destroyed.	E.			
. H 2	207 30b 204 205 206 30c 207a 38 30a 30a 37		Sampgaon taluk Athni taluka - Ditto - Parasgad taluka Gokak Chikori taluk			A C D "" "" "" "" ""		Weevilled Weevilled Ditto Dttto 		$58\frac{1}{58}$ 59 56 $\frac{1}{58}$ 57	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	 Long, thin berried, red. Long berried, flinty, red. Long berried, flinty, red. Long berried, flinty, red, thin. Long berried, flinty, red, thin. Long berried, flinty, red. Long berried, flinty, red.
			Dharwar L	District.			~	-	Ì			
	581			÷ 	-	В	Wheat from Challis- gaumi (2 years acclimatised).	Few weevils -	-	58	40 (Fine, flinty, white.
ļ	584	-		•	-]	53	Wheat from Jabbal- pur-Shapwa (3	• • -	-	61	40 (Long berried, hard, flinty, fine, white.
	585				-	22	years acclimatised). Wheat from Tasul- gaum (3 years acclimatised).	Some weevils -	-	59	39 (Good, hard, flinty, chaffy, white.
	586	-		-	-	D	Mixed Seine (3 years acclimatised).		-	59	37 (Long berried, hard, flinty, mostly red, dirty.
	587			-	-	"			-	63	34 6	Rough, long berried, flinty, red.
	582 583	_	• •	•	-		Wheat from Hoshun- gabad (2 years acclimatised) - Wheat from Jabbal- pur (2 years acclimatised) -	Destroyed by weevil.				

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tun.	Jam-				Des	cription of Sample.		-		9			Valua	tion and Report.
Valuation Num- her of Sample.	Number on Sam- ple as received.	Local	ity.		Colour and Hardness.	Nаше.			Conditio	on,		Weight.	Value.	Remarks.
		Kaludgi 1	District.			·							s. d.	
52 53	=		-	-	D "		-	Much Ditto	weevilled	-	-	55 <u>1</u> 59	$\begin{array}{ccc} 36 & 6 \\ 35 & 0 \end{array}$	Long berried, red Common red.
		Poona Di	istrict.											
965	-		-	-	в	Bakshi gahu	-		-		-	62	41 0	Fine, large berried, hard, white.
967	_	• •	-	-	17	Kate gahu -	-	-	-	•		631	40 0	Very find, bard.
966				-	33	Kali Kusal - Daud khani	-		12) 	-	111	59 [°] 60	38 6 38 6	Hard, white. Thin, hard, good, white.
969 970			1990 - Contra Co	21	**	Pote gahu -	-	-	-	-		601	38 0	Hard, white.
968	_		-		$\ddot{\mathbf{D}}$	Khapla or Jod	-		-	-	- C -	60 <u>1</u> 59 <u>1</u>	37 6	Thin, hard, red, brittle, husky.
		Satara D	istrict.					ļ					•	- G
994		Taluka Khutai	•	-	в	Buxi -	-	-	-	-1	-	60	40 6	Good, hard, white.
976	_	Taluka Khanapu Taluka Wan			33	Shet - Buxi -	-	-	-	-	-	$\begin{array}{c} 61 \\ 54 \end{array}$	39 6 39 6	Hard, white. Thin, hard, white.
981 998	=	Taluka Satara	-	- 1	* >7	Buxi - Ditto -	-	Slight	ly weevill	ed	-	691	39 6	Hard, white.
984	=	Taluka Palan	-	-	в́р	Ditto -	-	-	-	-	-	$\begin{array}{c} 62rac{1}{2} \\ 62 \end{array}$	39 0	Dark, hard, mixed.
991	-		-	-	в	Kate -	-	-	-	-	-	611	39 0	Large berried, hard.
992		Taluka Fauli	•	-	37	Shet -	-	-	e 1	-	- - -	60	39 0	Hard, mixed.
993 989	—	Taluka Wai	3 - 3	-	"	Ghaolee - Shet -		- Dutha	-	- -	-	61 59	39 0 38 0	Hard, mixed. Hard.
985	=	Tal Koregaon	-		"	Buxi -	-	- Kathe	r weeville	u -	-	59 61	38 0 37 0	Hard.
977	_	Tal Palan		- 1	Ď	Shet -		1 -	-	-	-	-	37 6	Hard, good, red.
972	_	Tal Tasgaon	())	-	"	Ditto -	•	-	-	-	-	58	37 0	Hard, red.
978	_	Tal Walwa	•	-	"	Buxi -	-	-	-	-	-	57	37 0	Hard, thin, red. Hard, thin, red.
996 971	=	Ditto Taluk Tasgaon		-	"	Khuple - Ditto -	•				-	60	36 6	Hard, thin, red.
973		Taluk Kanid	-	-	"	Buxi -		-	-	-	-	57 581	36 0 36 0	Hard, thin, red. Hard, dirty, red.
974		Ditto -	-	-	37 21	Khuple -	-		-		-	58 <u>1</u> 58	36 0	Hard, dirty, red. Hard, thin, red, husky.
975		Taluk Khanapur		-	19	Ditto -		-	-		-	561	36 0	Hard, thin, red, husky.
979	-	Talúk Wai	-	-	"	Ditto -	35	 .	-			55	36 0	Thin, red, little husky.
980 982		Taluk Wan Ditto -	23 2 3	200	**	Ditto -	-	-	1000	•	-	56	36 0	Thin, red, hard.
983		Taluk Palan	-	-	17	Pote - Khuple -	-	- C1	-	-	-	61 541	36 0 36 0	Thin, red, hard. Thin, red, hard, little husky.

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986 987 990 995 997 988		Tal Satava Tal Jauli Tal Khatao		-	27 12 29 29 29 29 29 29	Kate Khuplo Ditto Kali Koosli Khuplo Ditto					59 <u>1</u> 57 <u>1</u> 58 <u>1</u> 57 <u>1</u> 55 <u>1</u> 58	36 0 36 0 36 0 36 0 36 0 36 0 36 0 36 0 36 0 36 0 35 0	Hard, red, dirty. Hard, red, thin, husky. Hard, red, thin. Hard, red, dirty. Hard, red, thin, husky. Thin, red, husky.
959 960		Sholapur 	District. - -	-	B D	Basi or Ba Khapli or				-	61 54	37 6 34 0	Hard. Thin, bard, red, little busky.
		CENTRAL .	PROVINC	ES.		-2							
		NERBUDD.	DIVISION	ī.									·
	а а	Baitul	District.		a.								
181 182 183 184	1 2 3 4		-	-	A B C D	Pissi Akdania Khamra Kathia	:			• • •	63 63 62 62 5 62 5	$\begin{array}{cccc} 46 & 0 \\ 40 & 0 \\ 38 & 6 \\ 37 & 6 \end{array}$	Large herried, white, mostly hard. Long berried, mixed soft and red.
		Chindwar	ra District	.									e
568 569 570	1 2 3	Linga - Kamarpuni Sonekhar-	:	-		Pissi Bbokria Kathya	-	-	}Destroyed by weevil.				
		Hoshangab	ad Distric	<i>i</i> .									
579 575	3 1	· ·	-	-	Λ	Solureea White Piss	- 	-	Weevilled - Ditto -		$\overline{62}$	48 0 48 0	If not weevilled. Beautiful sample. Very fine, white, like Australian, soft.
576 577 578	2 3 4	 	-	-		Red Pissi Jellalea Kathia	•		Bestroyed by weevil.				
		Nimar	District,										
193 194 195	1 2 3		-	-	A C D	Bansi Dhunya Kathia	-			• • •	1	41 0 40 6 37 6	Long berried, hard, red, yellowish.

Nam-	on Sam- received.					Desc	ription of San	ople.						v	aluat	ion and Report.
Valuation Num- ber of Sample.	Number on ple as rec		Local	lity		Colour and Hardness.	Na	me. '		Con	lition.		Weight	t. Va	lue.	Remarks
		Nur	singpor	e District.						2						
199 200	1 2	-	1. 19	-	-	A D	Pissi Kathia	Ξ.	•			-	$\begin{array}{c} 62 \\ 62 \end{array}$	s. 42 36	0	Fine, large berried, white, mixed, hard, red. Rough, long berried, red.
8		100000000000000000000000000000000000000	ULPORE	Division												
201e 201d 201c 201a 201b	c d c a b		- * -			AC AD BD D	Doosra Pissi Jalalia Hansia Kateea		•				$ \begin{array}{r} 64 \\ 60 \\ 60 \\ 62 \\ 61 \\ 61 \end{array} $	39 38 37 37 37	0 6 6	Good, mixed, hard, white and red, some gram. Long berried, red and white, hard and soft. Long berried, hard, mixed. Long berried, flinty, red. Long berried, flinty, red.
		Jubb	ulpore 1	District.			×					84				
571 572 573 574	1 2 3 4	-	-		-	=	Mundi Kathia Jalalia Pinjara	•	-	Destroyed	by wcevil.					
		1	landla	District,												
171 170 172 174 175 173 169	3 2 4 6 7 5 1		•			A " " "	Pissi Sool Pissi moon Jalalia (1) Bangasia Katia Jalalia (2) Pissi lal	ndi) - -		Weeviled Destroyed by	v weevil.		601 56 581 57 59 55	46 41 40 38 38 38 37	0 6 6	Fine, small berried, white, like Californian. Good, thin, white. Good, soft, white, few damaged grains. Long berried, red, soft. Long berried, red, soft. Long berried, red, soft, rough.
		\$	augor 1	District.											1	15
165 164 167 166	$\frac{2}{1}$ 4 3	:	-	-		A B Ď	Pissi Hansia Jalalia Kathia				-		$62\frac{1}{62}$ $62\frac{1}{2}$ 61 62	40 40	0 6 0 6	Fine, clean, long berried, white. Long berried, fine, flinty, white. Long berried, flinty, white. Long berried, flinty, red.

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Valuation of the Samples of Wheat, &c.- continued.

	189 188 187 156 185	5 4 3 2 1	Sconi 	District.		" С	Mundi Pissi Jahlia Kathia Bungasia	-				$ \begin{array}{c} 64 \\ 59\frac{1}{2} \\ 58\frac{1}{2} \\ 60\frac{1}{2} \\ 59\frac{1}{2} \end{array} $	47 45 41 38 38	0 6 6 6	Fine, clean, white, like Californian. Fine, soft, white, few reddish. Good, long, soft, white. Long berried, soft, red. Long berried, red and soft.
			CHUTTEESG	urii Divisi	on.					E.					
	8		Bilaspur	District.		6	-								
	567 566 565	3 2 1		-	:	C "	Kathia Red Pissi White Pissi	-	-	Few weevils		60 63 61	41 41 39	0	Fine, clean, small berried, soft, red. Fine, clean, small berried, soft, red. Good, soft, dingy red.
			Raipore	District.											
H	563 564 562	2 3 1	Sunga - Ditto -	-	-	с 	Red Pissi Red Katia White Pisia		- 1	Weevilled Ditto Destroyed by weevil.		61 60 <u>‡</u>	89 39	0	Fine, stout, soft, red, few damaged grains. Long berried, soft, red.
			NACPORI	DIVISION.					ļ	2 ³⁸					
			Balagha	t District.											
	192 190 191	3 1 2		-	-	A B D	Bansi Pissi Kathia	3 	- - -				43 40 37	0 0 0	Fine, clean, large berried, white. Good, hard, clean, white. Long berried, almost hard
			Bhandar	a District.											
	553 554 555 5 5 6	1 2 3 4		-	-		Pisi Kathi Havra Bansi		- -	Destroyed by weevil.					
			Chanda	District.											
	178 180 176 177 179	3 5 1 2 4	 	· ·		с "	Mal Katteh Mal havali Katteh Katteh lal Bansi	-	-		• • • •		38 38 37 37 37	6 6 6 0	Long berried, hardish, red. Long berried, soft, red. Long berried, flinty, red. Long berried, hard, flinty, thin, red. Long berried, hard, red.

Valie- ple,	Sam- ived.		De	scription of Sample.		900 B	Valuation and Report.
Valuation Num- ber of Sample.	Number on Sam- ple as received.	Loculity.	Colour and Hardness.	Name.	Condition.	Weight. Va	ilue, Remarks.
198 197 196	3 2 1	Nagpore District.	- AB - B - "	Chawal kathi - Botka Havra	Weevilled	61 38 61 40	 d. b. <
- 561 557 558 559 560 560	5 1 2 3 4 1	Wurdha District. Hurghenghat - - - - - - - - - - - - - - - - - - -	- D D	Sousalya Kathya Havara Bhokra Lal Pissi Kathi	Weevilled Destroyed by weevil.	62 07 60 37	 6 Long berried, hard, flinty, red. 0 Long berried, hard, red.
	0	BERAR. EAST BERAR. Oomraottee District.		a.			
879 881 873 874 875 875 875 876 876 877 884 883		Hartala Hatoornah Chandur Ditto Bulgaon Bhatkooli Murhzapur Bulgaon Murtizapur Chandur Morsi	- B	Bansi Ditto Chaoul katee - Bunsee gahun - Katiah gahun - Ditto Katiah - Ditto Katiah gehun - Ditto	Much wcevilled Weevilled Dirty Few weevils Much weevilled Few weevils Few weevils	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	 Long berried, white, hard, good. Long berried, white, hard, grey. Long berried, white, hard. Long berried, white, hard, grey. Long berried, hard. Long berried, hard. Long berried, hard, white, dirty. Long berried, hard, red, good.

880 878 872		Bulgaon Chandur Bulgaon	-	1)))	Lad gehun Jode gehun Lad gehun	Lost.	-	61 58	37 0 36 0	Long berried, hard, red, good, Long berried, hard, red, thin,
923 918 921 920 919 922 924 924 925 926 927		Ellichpur District. Purriapur Ellichpur Mailghat Ditto Ellichpur Mailghat Mailghat Muriapur Woon District. Pumner Dabat Burrad		B B D B B B	Bansi Ditto Potia Katey Katia - Katey Bukshi Deshi Ditto	Mixed rape seed Ditto Weevilled Weevilled Much weevilled		$\begin{array}{c} 60\frac{1}{2} \\ 60 \\ 62\frac{1}{2} \\ 60\frac{1}{2} \\ 60\frac{1}{2} \\ 60\frac{1}{2} \\ 59\frac{1}{2} \\ 60 \\ 57 \\ 59 \end{array}$	41 0 40 6 40 0 39 0 38 0 37 0 37 0 37 0 40 0 40 0	White, long berried, hard. White, long berried, hard. White, long berried, hard, some earth. Long berried, mixed hard and soft. Red, long berried, hard. Red, long berried, hard. Red, long berried, hard. Long berried, hard. Long berried, hard, white. Long berried, hard, white.
928	, 	Nandura West Berar. Akola District.	-	D	Ditto - ·	Ditto	-	56 <u>‡</u>	36 0	Long berried, bard, red.
894 891 892 897 885 885 887 889 898 898 898 898 895 888 893 890 896		Akote-Ballapur-Jalgaon-Akola-Khamgaon-Akola-Ditto-Ditto-Ditto-Akote-Akola-Ditto-Ditto-Ditto-Ditto-Ditto-Ditto-Akote-Ditto		B "" "" "" "" "" "" ""	Bansi - Ditto - Bagayati - Bansi - Bansi - Chawal - Bansi - Ditto - Kathi - Bagati bansi - Bagayah bansi Kate - Kathe - Bagati bansi -	Weevilled Weevilled and dirty		$ \begin{array}{r} 61\\ 60\\ 58\\ 61\\ 60\\ 55\\ 59\\ 57\frac{1}{2}\\ 58\\ 60\\ 60\\ 59\\ 59\\ 59\\ 59\\ 59\\ 59\\ 59\\ 59\\ 59\\ 59$	41 6 41 0 39 6 39 6 38 6 38 0 38 0 39 0 37 6 37 0 37 0	Long berried, white, hard, good. Long berried, white, hard, ricey. Long berried, white, hard, ricey. Long berried, white, hard, good but earthy. Long berried, white, hard, grey. Long berried, white, hard, fair quality. Long berried, white, hard, fair quality. Long berried, hard. Small berried, red, soft, good. Long berried, red, hard, grey. Long berried, red, hard, grey. Long berried, red, hard, grey. Long berried, red, hard, grey. Long berried, red, hard.
908 914 912 916		Buldana District. Sarangpur Waghapur Gungakhed Ganapur	-	в " С	Ditto - ·	Few weevils	-	61 60 61	41 0 41 0 40 6 40 0	Long berried, white, hard. Long berried, white, hard. Long berried, white, hard. Long berried, red, good, soft, earthy.

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tum-	Sam- ved.	ana sekisti a adalari da	Desc	aription of Sample.		-2	Val	uation and Report.
Valuation Num- ber of Sample.	Number on Sam- ple as received.	Locasity.	Colour and Hardness,	Name.	Condition.	Weight.	Value.	Remarks.
909 911 917 907 910 913 915		Buldana Districtcont. Wadhoda Sarangpur Mngsari Harsode Waghapur Menria Dattala		Bansi Kathe Ditto Bansi Pote Ditto	Few weevils Weevilled Destroyed by weevil.	58 59 60 55½	s. d. 37 0 37 0 37 0 36 6	Long berried, red, hard. Long berried, red, hard. Long berried, red and white, hard.
900 901 905 906 904 903 902 809		Bassim District. Wakua Rissole Sirpoor Ditto Rissole Ditto Oomerkheir Rissole	" Č "	Bukshi Ditto Kbattai Caodce Botkai Khattai Sawali		60 61 62 60	40 0 39 6 39 6 41 0 40 0 39 0 38 0 37 6	White, long berried, hard. White, mostly hard. Red, good, soft. Red, long berried, soft, good, some earth. Red, long berried, semi-bard.
\$42 \$40 \$43 \$39 \$41 961 \$58		MADRAS PRESIDENCY. Bellary District. Aloor Taluq	75 35 75 35 25	Java godama Saluku godama Budda godama Java godama Potta godama Java godhi - Badda godama	Few weevils Weevilled - Badly weevilled - Much weevilled -	60 58 59 50 56	37 0 36 6 36 6 36 0 35 0 35 0	
961		Harpunhully Talug -		Java godhi - Budda godama - Java godama - Jave godama - Ditto -	ACTIVATION CONTRACTOR CONTRA	56	35 0 35 0	Red, long berry.

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- 852 855 854 853 851		Coimbatore Oodoomulpetteh Collegal Ditto Pulladum	District.		D "	Pottay goda Javay goda Hodday goda	ma - lama -	Musty Much weevilled Weevilled Not threshed. Not husked	•		55 54 54	$ \begin{array}{cccc} 35 & 6 \\ 35 & 6 \\ 34 & 0 \\ $	Red, small berry, hard clean, ricey. Red, long berry, hard, thin. Red, long berry, inferior. A kind of spelt, no value.
S 37		Cuddapah Pulwendula	District.	-	, D	Paramaty Budda gotł	gothamalu Jamalu -	Wcevilled Ditto -	-	-	59 58	37 0 36 6	Red, hard, small berry, dingy. Red, hard, large berry.
835 836		Kadiry -	-	-	29 73	Java gotha	malu -	Ditto -	-	-	52	36 6	Red, hard, spindley, chaffy.
847 850 848 849 846 845		Kurnool . Rajupalam Kankanooroo Mundlapad Sivavaram Billalapuram Allur -	District. - - - - - -		D "" "	-	• •	Weevilled Ditto Weevilled Lost.	-		58 58 56 57 <u>1</u> 55	37 6 37 6 37 0 36 6 34 6	Red, long berry, hard. Red, long berry, hard, good. Red, long berry, hard. Red, long berry, hard. Red, long berry, hard, inferior, thin, dirty.
		Kistna L	District.					Much weevilled			59	35 6	Red, hard, dirty.
834 833	=	Narsarowpeta Nuzanul division	-	-	D	-		Lost.	-		0.7		
		Nilgherry	District.										A kind of spelt, no value.
856		Ootacamund	•	-		-		Not husked	-	-		-	24 kind of spen, no value.
857	_	Tinnevelly Idakal tenkasi	District. -	-	-		* *	Not husked		-	_		A kind of spelt, no value.
		MYSO	RE.										
864 859 867 957 953		Betmangala Bangalore Chittledrag taluk Hoomali taluk	- - - - - -	-	D " "	Hotte godh Java godhi Hotte godh Java godhi Hottee godl	i	Few weevils Unsuitable	-		60 59 55	37 6 36 0 35 6 35 0	Red, good, large berry, hard, Red, long berry, hard, spindley. Red, long berry, hard, inferior. Thin, hard, red, a little husky. Very dark red, hard.

Valuation Num- ber of Sample.	Number on Sam- ple as received.	Locality.	Description of Sample.			Valuation and Report.				
			Colour and Hardness.	Name.		Condition.	Weight.	Value.	Remarks.	
		MYSORE—cont.				r)		1.000		-
955		Hosdrug taluk	D	Hottee godhi	-	Unsuitable	-	s. d.	Dark, hard, red.	
858 860	_	Kolar taluk Mulbagul		Java godhi - Ditto -	- 2	11		3 ×	· · ·	
861 862	_	Malur	— —	Ditto - Ditto -	-	Not husked		-	A kind of spelt, no value.	1
863		Goribidaur -		Ditto -	- 2				8 8 8	1
865		Gumnaya Kanpalya		Ditto -		Lost.				1
866 932		Ditto Arkalgud		Ditto - Ditto -	-	Not husked			a and a second sec	1
933		Chamagiri		Ditto -		A husked	-		A kind of spelt, no value.	i
934		Hiriyur -		Hotte godhi -	-	Destroyed by weevil.				1
935 936	-	Chitaldrug		Jave godhi - Ditto -	-	Not husked				1 6
937	·	Tarikere		Ditto -	-	Chaffy.		-	A kind of spelt, no value.	1 8
938 939	_	Ditto -		Hotte godhi -	-	Ditto.				1
959		Chihmagainr		Jave godhi - Hottee godhi	(1)	Ditto.				1
952		MODEQOT -		Java godhi -	1	Insufficient for report. Ditto.			e e	
954 956		Nursepur -		Ditto -		Half in chaff.				1
958	_	Powghur		Ditto -		In the chaff. Destroyed by weevil.			M 10	ł
			*		**	Destroyed by weevit.				
		BURMA.	Ì	•					÷	
					3		.]	1	9.	
		Pegu District.	l							
$202 \\ 203$	-	Thayeimyo -	D		-		55	35 0	Common land 1 1	
203		Ditto -	, ,,	· -	-		58	33 6	Common, large berried, red. Common, large berried, red, much mixed with barley.	1

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