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## AGRICULTURAL MARKETING IN INDIA

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# Report on the MARKETING OF EGGS IN INDIA AND BURMA

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## INTRODUCTION.

This report deals with a profitable but sadly neglected branch of agriculture. It is commonly supposed that producers keep poultry largely for their own use. In actual fact, however, more than 60 per cent. of the hen eggs and 80 per cent. of the duck eggs are actually marketed. The total value of the eggs sold in the course of a year amounts to  $5\frac{1}{4}$  crores of rupees. The value of the birds themselves equals about  $7\frac{1}{2}$  crores. It would be appreciated, therefore, that poultry provides a considerable cash income to a very large number of village producers throughout the country, and constitutes an important cottage industry.

By sheer neglect about 14 lakhs rupees worth of eggs are simply not collected in the course of a year. This is apart from the depredations of kites, crows, jackals and other vermin to poultry itself. Much, if not most, of this waste is preventable by the provision of small but sanitary mud poultry houses and the use of a little wire netting. This would seem to indicate scope for those interested in village reconstruction.

In the course of marketing the loss due to stale eggs, breakages, etc., is enormous, and at some periods of the year amounts to as much as 25 per cent. The value of the total loss to the industry, due to various causes, is estimated to be over *57 lakhs rupees* annually. This report shows how this waste might be eliminated and indicates how the business could be expanded and made more profitable to producers. The much deplored deficiency of protein matter in the diet of our people could also be remedied to some extent.

The report is short and the whole of it will bear reading, but those who wish to get quicker grasp of the essential points might read first the Inter-Chapters,

which are given at pages 37, 63, 97, 117, 137, 157, 187, 196, 209, 220 and 240.

Thanks and acknowledgments are due to a large number of producers, egg merchants and others, for their kind and friendly cooperation with the marketing staff, in getting this report out.

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*Note.*—The Government of India should not be regarded as assuming responsibility for all or any of the material contained in this report.

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Office of the Agricultural Marketing Adviser  
to the Government of India,  
Delhi.

*October 1938.*



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## APPENDICES.

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**NOTE.**—In going through some of the Appendices it may be noticed, that the figures in the different columns may not always tally arithmetically. This is due to the clipping of the original figures to lakhs, but in doing so the arithmetical accuracy could not be maintained. The difference on the whole is, however, insignificant and does not generally exceed half a per cent.

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## APPENDIX I.

*Methods adopted in the different areas for determining the number of birds.*

## A—HENS.

## Kashmir State.

*Desi hens.*—The keeping of hens is mainly confined to the Mohammedans. There are about 8,942 towns and villages in the State, with an average of about 75 houses in each. Of these about 75 per cent. or 5,03,728 are estimated to keep poultry. Enquiry further shows that an average mohammedan house keeps about 2 *desi* hens or pullets. Thus a total of about 10 lakhs laying pullets and hens for the State is estimated.

## North-West Frontier Province.

*Desi hens.*—Of about 4.8 lakhs houses in the urban and rural area of the province, enquiries show that only about 30 to 40 per cent. in the urban and 50 to 90 per cent. in the rural areas keep hens. The proportion of total houses keeping poultry, and the number of hens per house, vary in each of the five districts. Accordingly, it is calculated that on the whole about 2.7 lakhs houses are keeping poultry, and the total number of laying pullets and hens in the province are estimated at about 9.4 lakhs.

*Improved hens.*—Only a few are kept in the towns, cantonments and on the Government farms, and their total number is estimated to be about 1,050, out of which about 530 only are laying pullets and hens.

## Punjab.

*Desi hens.*—As pointed at the beginning of Chapter I, a poultry census was taken by the Agricultural Department (under the direction of the Poultry Expert) in 1932. A few villages were selected in each of the 28 districts and the number of hens kept in the district per hundred persons was determined. Accordingly, the total number of hens in the Punjab was calculated to be about 63.3 lakhs of which 90 per cent. were taken as laying pullets and hens. Unfortunately it has not been possible to check the previous figure of 1932 to see if there has been any variation since, but as a result of the present survey it is considered that the proportion of laying pullets and hens to the total hens, *viz.*, 90 per cent. is rather high. It has accordingly been reduced to 55 per cent., which works out to about 34.8 lakhs laying pullets and hens for the Punjab.

## Patiala State.

*Desi hens.*—A printed form was sent to the *patwaris*\* in all the villages and towns of the State and the number of hens, etc., was filled in after due enquiry at each village. The total number of laying hens and pullets thus worked up to 31,874. Similarly, the number of improved pullets and hens was found to be about 1,276.

## Delhi Province.

*Desi hens.*—(*Urban area*).—There are about 98,483 occupied houses in the urban area. Considering only the houses of Mohammedans, Christians and certain castes of the Hindus, it is found that only 1 house in a hundred keeps hens, and on an average 2 *desi* pullets and hens are kept per house for the production of eggs. Thus the total number of laying pullets and hens is estimated at 2,000 birds.

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\*Petty revenue officials.

(*Rural area*).—An official enquiry in most of the 365 villages of the province shows that only about half (180) keep poultry. The number of hens kept per village varies from 375 to 1,087 and the returns show that there are about 3,860 *desi* pullets and hens in the 180 villages. The provincial estimate of the *desi* laying pullets and hens is, therefore, 5,860.

*Improved hens*.—Including the hens kept on the two fairly large commercial poultry farms, and some found at some of the private houses in the urban area, the number of improved pullets and hens is estimated to be 2,400. The official returns from the rural area show only about 100 improved pullets and hens, all of which are in only one or two villages. Thus the provincial estimate is 2,500 laying pullets and hens.

#### Sind.

From an enquiry in a few representative villages the total number of *desi* hens in the province is estimated to be about 15 lakhs, of which about a third or 5 lakhs are pullets and hens. Improved poultry is negligible.

#### Baroda State.

On return of the questionnaires sent out to all the villages in the State, the number of *desi* pullets and hens is found to be 1.5 lakhs. Improved birds are negligible.

#### Bombay Presidency.

*Desi hens*.—Contrary to the method generally practised in the other areas, the number of hens in this Presidency has been worked backwards, from the figures of consumption of eggs.

*Urban consumption*.—Five important towns (*Bombay, Ahmedabad, Poona, Surat* and *Melagaon*) have been selected, and their population from the Census Report according to different religions is taken into account. The estimated consumption of eggs in the above five towns is about 2.5 lakhs per day, or about 941.7 lakhs per annum. Enquiries further show that the annual per capita consumption of eggs for the different communities is 600 eggs for Jews, 400 for Parsees, 350 for Christians, 50 for the Mohammedans and 12 for the Hindus. As many as 60 per cent. of the Hindus are also said to be egg eaters. On the above basis the annual consumption of eggs, for the entire urban population of the Presidency, is calculated to be 1,275.5 lakhs.

*Rural consumption*.—The consumption of eggs by the different communities in the rural area is less than in the case of urban population, although here also about 60 per cent. of the Hindus are said to be egg eaters. The per capita consumption for Jews is 200 eggs. In the case of Parsees and Christians it is 100 each, and for persons of tribal religions it is 20 each. For Muslims and Hindus it is 20 and 12 eggs respectively. Accordingly, the annual consumption amongst the total rural population is estimated at about 1,384.4 lakhs eggs.

The consumption for the whole Presidency thus works up to 2,660 lakhs eggs per annum. Taking into consideration the annual inter-provincial import and export of eggs, the imports are greater by about 121.1 lakhs. The consumption of eggs produced within the Presidency is thus 2,660—121.1 or 2,538.9 lakhs. An addition of 10 per cent. to this is necessary, to account for eggs that are produced but cannot be consumed for eating purposes (3 per cent. due to non-collection on account of the ravages of wild animals and birds, 3 per cent., used for hatching and 4 per cent. lost due to spoilage, etc.). Thus the total annual consumption of eggs for the Presidency is estimated to be 2,792.7 lakhs.

These eggs however also include duck eggs and improved hen eggs, and it is estimated that the annual production of these two is 8.86 lakhs, the balance, 2,783.91 lakhs, being *desi* hen eggs. At the rate of 60 eggs per annum produced per *desi* bird, the estimated number of *desi* hens in the Presidency is 46.3 lakhs.

It would appear that the indirect method adopted above leaves various loopholes for errors to creep in, so that the figures arrived at should be considered only as approximations.

*Improved hens.*—Records of various Government and private farms as well as the estimates of the numbers kept by a few individuals show, that the number of improved birds is not more than 15,000 of which 5,000 are laying hens.

#### Mysore State.

*Desi hens.*—A poultry census was taken in 13 villages of *Sira taluk* in *Tumkur* district and on its basis, an estimate for the number of birds in the State has been made. Caste restrictions permit only 44 communities out of 55, to rear poultry. On the basis that only about 8.8 lakhs houses in the State are keeping poultry at an average of 2 hens per house, the number of *desi* hens is estimated to be 17.6 lakhs.

*Improved hens.*—There are only a few places in the State where these are found and their number is estimated at 6,000 laying pullets and hens.

#### . Coorg.

Enquiries and estimates by *nads*\* show that the province has about 52,000 *desi* hens of which about a half are laying pullets and hens. The number of improved laying pullets and hens is about 700 only.

#### Cochin State.

*Desi hens.*—Immediately prior to the marketing surveys, the State had undertaken in 1934 an economic survey of nine typical villages during the course of which the number of hens (including improved hens) per village was found to be 803. On the above basis, for the 308 village units (including 36 villages as equivalent to 12 towns) the number of laying pullets and hens has been estimated at 2.4 lakhs.

*Improved hens.*—Further enquiries show that 4 per cent. of the laying birds are of an improved type and their number is thus calculated to be about 10,000.

#### Travancore State.

*Desi hens.*—It has already been pointed out that in 1925 a poultry census was taken by the (Y. M. C. A.) Rural Reconstruction Centre, *Martandam*, in two villages comprising some 204 houses. It was further observed that in *South Travancore*, there were 2,55,596 occupied houses of which about two-thirds keep hens. On the basis that each house has three laying birds, the number of *desi* laying pullets and hens in *South Travancore* is estimated to be 5.1 lakhs. So far as *South Travancore* was concerned, the results of this survey are considered to hold good generally even under the present conditions. For the *Central*, *Northern* and *hill range* divisions, however, estimates are based on fresh enquiries. In the above areas there are 6.7 lakhs occupied houses and enquiries show that 25 to 50 per cent. of the houses do not keep hens, and of the remaining which do, possess generally 2 to 4 laying pullets and hens. On this basis the total for the

\*Local divisions.

above three areas is estimated to be about 18.7 lakhs laying pullets and hens, and for the whole State 23.8 lakhs *desi* pullets and hens.

#### Madras Presidency.

*Desi hens.*—A poultry census taken through the help of village officials in 25 representative villages in the different parts\* of the Presidency, shows that about 37.5 per cent. of the houses are keeping poultry. From a random sampling it was further observed that a house (with an average of 5 persons) kept 2 *desi* pullets and hens. On this basis, 15 *desi* hens are kept per hundred persons in the Presidency. It is estimated that 70.1 lakhs birds are kept by the total population of 46.74 millions. Since a part of the Presidency was transferred to the newly formed province of *Orissa*, the number has subsequently been reduced to 66.1 lakhs.

*Improved hens.*—An estimate of the few places where these are generally kept, shows that the number of the laying pullets and hens is roughly 15,000.

#### Nizam's Dominions.

*Desi hens.*—A survey of a number of typical villages, during which the *desi* laying pullets and hens were actually counted, puts their figure at 0.2 to 1.4 per house. In the urban area, the number is 1.6 per house. Accordingly, for the whole State the number of *desi* pullets and hens is estimated to be about 37.4 lakhs.

*Improved hens.*—They are generally kept in large towns only and their strength is estimated to be about 12,600 for the whole State.

#### Central Provinces.†

The number of *desi* pullets and hens in *Central Provinces* and *Berar* is estimated to be about 22.2 lakhs and in the 14 States, about 9.7 lakhs.

The number of improved hens is estimated at 5,715 for *Central Provinces* and *Berar* and at only 30 for the 14 States.

#### United Provinces.

Approximately 67 places and areas having a population of 35,870 persons have been visited in 33 districts of the provinces, wherein 726 persons (about 2 per cent. of the population) are found to keep 4,404 laying hens including pullets.

The hen population is found to represent 70 per cent. *desi*, 7 per cent. pure-breds and 23 per cent. crosses between the first two. As some of the crosses are not much different from their *desi* parents, and as their proportion is by no means unalterable, they are counted together with the *desies* and their combined number is estimated to be 53.5 lakhs. The number of improved hens is likewise estimated to be 4.5 lakhs.

#### Bihar.

*Desi hens.*—Only Mohammedans, low caste Hindus, tribal population, Anglo-Indians and Europeans, generally keep poultry. The proportion of

\*West coast, Ceded districts, Northern Circars, Central area and Southern districts.

†The Marketing Survey of *Central Provinces* included also 14 States of : *Nandgaon, Surguja, Jashpur, Khairagarh, Raigarh, Udaipur, Sakti, Kanker, Kora, Sarangarh, Rasi, Raftar, Changbhandkar and Kawardha.*

the numbers keeping the hens varies however with each community, and also in each of the divisions. For instance, 60 to 70 per cent. of the Mohammedans, 15 to 40 per cent. of the low caste Hindus, 25 to 70 per cent. of the tribal population and 25 to 50 per cent. of the Anglo-Indians and Europeans are estimated to keep hens, in the different divisions. On the above basis it is calculated that the province of *Bihar* has about 39.4 lakhs of *desi* pullets and hens.

*Improved hens.*—Enquiries show that their proportion to the *desi* birds is small and in the different divisions it varies from 2 to 4 per cent. The total number for the province is estimated to be about 1.2 lakhs pullets and hens.

#### Orissa.

*Desi hens.*—The impending separation of the province had been kept in view and estimates of the area (*Chhota Nagpur* division) proposed to be separated from *Bihar*, have been arrived at separately. It is estimated that there are 2.3 lakhs *desi* pullets and hens. To this have been further added 4.0 lakhs *desi* birds on account of the transfer of *Ganjam* district and part of *Visagapatam* district from *Madras Presidency*, making in all 6.3 lakhs *desi* pullets and hens for *Orissa*.

*Improved hens.*—A previous estimate of the *Chhota Nagpur* division gives the figure of 4,700 for improved birds, and since the areas transferred from *Madras Presidency* have only a negligible number of these, the above figure has been taken as total for the province of *Orissa*.

#### Bengal.

*Desi hens.*—Mohammedans, Christians and low caste Hindus mainly keep poultry, and about 34.5 lakhs families only among them. The number of laying pullets and hens works up to 88.8 lakhs.

*Improved hens.*—Considering the size of the Presidency, the number of improved poultry is indeed small. These are found to be mainly kept on a few farms by individuals in large towns, and their number is estimated to be 2,030 laying pullets and hens on the whole.

#### Assam.

*Desi hens.*—Some 30 typical villages were selected in each district, and information has been collected regarding (i) the number of holdings rearing hens, and (ii) the number of hens per holding. The average number of laying pullets and hens per holding varies from 1.25 to 2 in the different districts and there are about 4 lakhs holdings keeping hens. Accordingly about 5.8 lakhs *desi* pullets and hens are estimated for the province.

#### Burma.

*Desi hens.*—From the enquiries made in several village tracts it is estimated that their total number in 6,916 village tracts is about 9.5 lakhs *desi* pullets and hens.

*Improved hens.*—Similar enquiries show that there are 21,400 improved pullets and hens. They are however concentrated in a few districts only.

#### Other areas.

The areas given above comprise over 1.3 million square miles or 73 per cent. of the total area of the country. In arriving at the number of

hens in the remaining areas\*, three main facts have been taken into account, viz., (a) the nature of the territory, (b) density and classes of human population therein, and (c) the density of poultry and human population in surveyed areas where conditions are most identical to the area under estimation.

### B—DUCKS.

#### Travancore State.

Ducks are generally kept in large flocks only by a few persons. There are only about 300 duck-keepers each possessing a flock of about 500 laying ducks or about 1.5 lakhs ducks in all. These duck-farmers are generally concentrated in a few *talukas* of *Central Travancore* lying towards the sea-coast and back-waters. For the remaining area of the State, a further 10 per cent. of the above number has been added to make a total of about 1.65 lakhs laying ducks for the whole State.

#### Madras Presidency.

The method adopted in the *Madras Presidency* is rather ingenious. At all important markets the ratio of marketable duck eggs to hen eggs, is 2 : 3. The number of eggs laid annually per duck and hen are 120 and 50 respectively. On equating these ratios, the proportion of ducks to hens works out as 2 : 3 :: 120 : 50 or 100 : 360 or 1 : 3.6. The figure 3.6 has been rounded off to 4 and the ratio of ducks to hens is taken to be 1 : 4. As the number of *desi* hens (70.11 lakhs) in the Presidency is arrived at as a result of a census, on the above basis the number of laying ducks is calculated to be 17.5 lakhs. This number has been subsequently reduced to 16.7 lakhs due to transfer of the eastern districts to the new province of *Orissa*.

#### Bengal.

In *Bengal*, only the Mohammedans, Hindus and Christians generally keep ducks, and the methods adopted for determining the number of hens, is followed for ducks also.

#### Burma.

Conditions of duck-farming are indeed peculiar in *Burma*. Not only their keeping is confined to certain districts, but a majority of the birds are hatched by professional hatchery men and not by the duck-keepers as is the case in India. It is reported that there are thirteen principal hatchery-men who are all Chinese and of whom eight are established at *Kavun* in *Lower Burma*. They hatch annually some 17 lakhs ducklings. After allowing 2.5 lakhs as casualties, and a further 10 lakhs for table ducks, the number of ducklings hatched and reared for production of market eggs is estimated to be about 4.5 lakhs. Besides these it is estimated that in the other areas there are nearly 2.4 lakhs laying ducks. Thus the total number of laying ducks for *Burma* has been estimated to be about 6.9 lakhs.

[NOTE.—In other areas, either the number of ducks was found to be negligible or the methods adopted for their estimation have been common to those adopted for the number of hens.]

\*Comprising of Agency area of North-West Frontier Province, British Baluchistan, Baluchistan States, Punjab States (excluding Patiala State but including 18 Simla Hill States), Rajputana, Central India States, Western India States, Gujarat Agency, Deccan States, Madras States (excluding Cochin and Travancore), Eastern States (excluding 14 Central Provinces States), Bundelkhand Agency, United Provinces States, Bengal States, Assam States and Eastern States of Burma.

APPENDIX II.

*Production of Desi Hen Eggs.*

	Estimated number of total birds. (Lakhs). (1)	Estimated number of layers. (Lakhs). (2)	Number of eggs laid annually per bird. (3)	Annual production of eggs. (Lakhs). (4)	Proportion of total production Per cent. (5)	Number lost before collection.		Number collected. (Lakhs). (8)
						Per cent. (6)	Number. (Lakhs). (7)	
1. Kashmir State .. .. .	40.3	10.0	50	503.7	1.8	7.5	37.7	465.9
2. North-West Frontier Province .. ..	26.0	9.4	49	469.5	1.7	1	4.6	464.9
3. North-West Frontier Province Agency Areas ..	12.7	4.6	49	228.3	0.8	1	2.2	226.1
4. British Baluchistan .. .. .	4.5	1.6	49	81.2	0.3	1	0.8	80.4
5. Baluchistan States .. .. .	6.7	2.4	49	120.6	0.4	1	1.2	119.4
6. Punjab .. .. .	63.3	34.8	55	1,915.4	7.0	1	19.1	1,896.3
7. Patiala State .. .. .	0.5	0.3	60	19.1	0.1	Neg.	Neg.	19.1
8. Punjab States (excluding Patiala State) ..	3.9	2.1	60	131.7	0.5	Neg.	Neg.	131.7
9. Delhi Province .. .. .	0.3	0.05	60	3.5	Neg.	3	0.1	3.4
10. Rajputana .. .. .	20.6	3.4	60	206.9	0.8	4	8.2	198.7
11. Central India States .. .. .	14.0	2.3	60	140.6	0.5	4	5.6	135.0



APPENDIX II—contd.  
Production of Desi Hen Eggs.

	Estimated number of total birds. (Lakhs). (1)	Estimated number of layers. (Lakhs). (2)	Number of eggs laid annually per bird. (3)	Annual production of eggs. (Lakhs). (4)	Proportion of total production. Per cent. (5)	Number lost before collection.		Number collected. (Lakhs). (8)
						Per cent.	Number.	
						(6)	(Lakhs). (7)	
12. Sind .. .. .	15.0	5.0	55	275.0	1.0	Neg.	Neg.	275.0
13. Khairpur State .. .. .	1.9	0.6	55	33.0	0.1	Neg.	Neg.	33.0
14. Western India States .. .. .	1.1	0.7	60	44.5	0.2	4	1.7	42.7
15. Gujrat Agency .. .. .	0.02	0.006	60	0.4	Neg.	4	0.01	0.38
16. Baroda State .. .. .	5.0	1.5	60	90.0	0.3	4	3.6	86.4
17. Bombay Presidency .. .. .	92.7	46.3	60	2,783.9	10.2	3	83.5	2,700.3
18. Deccan States .. .. .	5.2	2.6	60	157.6	0.6	3	4.7	152.8
19. Mysore State .. .. .	55.0	17.6	60	1,066.4	3.9	3.5	37.3	1,029.1
20. Coorg .. .. .	1.2	0.2	30	7.7	Neg.	2	0.1	7.6
21. Cochin .. .. .	4.6	2.3	60	118.7	0.4	2	2.3	116.3
22. Travancore .. .. .	67.0	23.8	50	1,155.0	4.2	4	46.2	1,109.7

1941-42	23. Madras States (excluding Travancore and Cochin)	3.2	0.6	32	21.7	0.1	3	0.6	21.0
	24. Madras Presidency .. .. .	316.3	66.1	51	3,371.5	12.3	2	67.4	3,304.1
	25. Nizam's Dominions .. .. .	57.6	37.4	62	2,321.9	8.5	1	23.2	2,298.6
	26. Central Provinces .. .. .	40.3	22.2	48	1,066.0	3.9	5	53.3	1,012.7
	27. Central Provinces States (14) .. .. .	17.7	9.7	48	468.2	1.7	5	23.4	444.8
	28. Eastern States (excluding Central Provinces States).	15.4	8.4	48	407.1	1.5	5	20.3	386.8
	29. Bundelkhand Agency .. .. .	3.7	0.6	60	37.5	0.1	4	1.5	36.0
	30. United Provinces .. .. .	162.3	53.5	70	3,779.3	13.8	1	37.7	3,741.6
	31. United Provinces States .. .. .	4.0	1.3	70	94.0	0.3	1	0.9	93.1
	32. Bihar .. .. .	106.3	39.4	60	2,358.3	8.6	2	47.1	2,311.1
33. Orissa .. .. .	24.4	6.3	50	317.9	1.2	2	6.3	311.6	
34. Bengal .. .. .	449.0	88.8	36	3,189.0	11.7	3	95.6	3,093.3	
Bengal States .. .. .	15.3	3.1	36	112.9	0.4	3	3.3	109.5	
36. Assam .. .. .	51.5	5.8	41	263.2	1.0	0.69	1.8	261.4	
37. Assam States .. .. .	2.8	0.3	41	13.9	0.1	0.69	0.09	13.8	
	<b>Total India</b> .. .. .	<b>1,711.3</b>	<b>514.75</b>	<b>53</b>	<b>27,376.0</b>	<b>(100)</b>	<b>2.34</b>	<b>641.4</b>	<b>26,733.58</b>
	1. Burma .. .. .	33.5	9.5	40	383.2	98.5	3	11.4	371.7
	2. Eastern States of Burma .. .. .	0.5	0.15	40	6.0	1.5	3	0.1	5.9
	<b>Total</b> .. .. .	<b>34.0</b>	<b>9.65</b>	<b>40</b>	<b>389.2</b>	<b>(100)</b>	<b>2.95</b>	<b>11.5</b>	<b>377.6</b>

APPENDIX III.

*Production of Improved Hen Eggs.*

	Estimated number of total birds.	Estimated number of layers.	Number of eggs laid annually per bird.	Annual production of eggs.	Proportion of Total production Per cent.	Number lost before collection.		Number collected.
						Per cent.	Number.	
	(Thou- sands). 1	(Thou- sands). 2	(Thou- sands). 3	(Thou- sands). 4	5	6	(Thou- sands). 7	(Thou- sands). 8
1. North West Frontier Province .. ..	1.0	0.5	100	53	0.1	1	0.5	52.5
2. Punjab .. ..	3.0	0.9	110	105.6	0.1	0.2	0.2	105.3
3. Patiala State .. ..	3.9	1.2	130	165.8	0.2	Neg.	Neg.	165.8
4. Delhi Province .. ..	5.0	2.5	110	275	0.4	5	13.7	261.2
5. Rajputana .. ..	1.8	0.9	110	100	0.1	5	5.0	95
6. Central India States .. ..	1.8	0.9	110	100	0.1	5	5.0	95
7. Western India States .. ..	1.8	0.9	110	100	0.1	5	5.0	95
8. Bombay Presidency .. ..	15.0	5.0	85	425	0.5	2	8.5	416.5
9. Deccan States .. ..	4.5	1.5	85	127.5	0.2	2	2.5	124.9
10. Mysore State .. ..	18.0	6.0	120	720	0.9	3.5	25.2	694.8

11. Coorg .. .. .	3.1	0.7	100	69.3	0.1	2	1.3	67.9
12. Cochin .. .. .	19.5	10.0	110	990	1.3	2	19.8	970.2
13. Travancore .. .. .	207.2	71.5	100	7,150.2	9.0	4	236.0	6,864.1
14. Madras Presidency .. .. .	68.0	15.0	102	1,530.6	1.9	2	30.6	1,500
15. Nizam's Dominions .. .. .	19.3	12.6	127	1,600.2	2.0	1	16.0	1,584.1
16. Central Provinces .. .. .	7.6	5.7	120	686	0.9	5	34.3	651.7
17. United Provinces .. .. .	1,368.1	451.4	120	54,177	68.4	1	541.7	53,635.2
18. United Provinces States .. .. .	34.3	11.3	120	1,359.2	1.7	1	13.5	1,345.6
19. Bihar .. .. .	334.1	123.9	72	8,925.1	11.3	2	178.5	8,746.6
20. Orissa .. .. .	10.6	4.7	65	310.2	0.4	2	6.2	304.0
21. Bengal .. .. .	8.7	2.0	83	171.8	0.2	3	5.1	166.7
22. Bengal States .. .. .	3.3	0.8	83	67.1	0.1	3	2.0	65.1
<b>Total India .. .. .</b>	<b>2,139.6</b>	<b>729.7</b>	<b>103</b>	<b>79,208.6</b>	<b>100</b>	<b>1.51</b>	<b>1,200.6</b>	<b>78,007.2</b>
<b>Burma .. .. .</b>	<b>75.0</b>	<b>21.4</b>	<b>101</b>	<b>2,179.3</b>	<b>100</b>	<b>0.5</b>	<b>10.8</b>	<b>2,168.4</b>

*Note.*—In the other areas the number of improved birds is negligible.

APPENDIX IV.

*Production of Duck Eggs*

	Estimated number of total birds. (Lakhs).	Estimated number of layers. (Lakhs).	Number of eggs laid annually per bird.	Annual production of eggs. (Lakhs).	Proportion of total production. Per cent.	Number lost before collection.		Number collected (Lakhs).
						Per cent.	Number.	
						(6)	(7)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
1. North-West Frontier Province .. ..	0.3	0.2	100	23.3	0.5	1	0.2	23.1
2. Punjab .. ..	1.0	0.8	50	40.0	0.8	2	0.8	39.2
3. Patiala State .. ..	0.06	0.005	120	0.6	Neg.	Neg.	Neg.	0.6
4. Sind .. ..	0.1	0.01	40	0.6	Neg.	Neg.	Neg.	0.6
5. Bombay Presidency .. ..	0.2	0.1	150	15.0	0.3	5	0.7	14.3
6. Mysore State .. ..	0.1	0.04	100	4.0	0.1	1	0.04	3.9
7. Coorg .. ..	0.01	0.008	100	0.8	Neg.	2	0.01	0.7
8. Cochin .. ..	0.7	0.5	120	71.5	1.4	2	1.4	70.1
9. Travancore .. ..	2.2	1.5	120	198.0	3.8	1	1.9	196.0
10. Madras Presidency .. ..	51.4	16.7	126	2,115.3	40.9	5	105.7	2,009

11. Nizam's Dominions	..	..	..	0.7	0.5	61	30.5	0.6	1	0.3	30.1
12. Central Provinces	..	..	..	0.2	0.1	80	11.6	0.2	5	0.4	11.0
13. Central Provinces States (14)	..	..	..	0.07	0.03	40	1.5	Neg.	5	0.07	1.5
14. United Provinces	..	..	..	5.1	3.4	100	342.3	6.6	1	0.3	341.9
15. United Provinces States	..	..	..	0.2	0.1	100	17.1	0.3	1	0.1	16.9
16. Bihar	..	..	..	1.4	1.3	130	174.3	3.4	2	3.4	170.8
17. Orissa	..	..	..	2.7	1.0	127	135.2	2.6	4.1	5.6	129.5
18. Bengal	..	..	..	72.3	23.7	75	1,778.5	34.4	3	53.3	1,725.2
19. Bengal States	..	..	..	1.4	0.4	75	34.6	0.7	3	1	33.5
20. Assam	..	..	..	26.1	4.3	39	172.6	3.4	0.77	1.3	171.3
21. Assam States	..	..	..	0.2	0.04	39	1.6	Neg.	0.77	0.01	1.6
Total India			..	166.3	54.833	90	5,168.9	100	3.41	176.53	4,991.7
Burma	..	..	..	20.6	6.7	180	1,224.7	100	5	61.2	1,163.5

Note.—In the other areas the number of ducks is negligible.

**APPENDIX V.**  
*Production of Goose Eggs.*

	Estimated number of total birds.	Estimated number of layers.	Number of eggs laid annually per bird.	Annual production of eggs.	Proportion of total production. Per cent.	Number lost before collection.		Number collected.
						Per cent.	Number.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. North-West Frontier Province .. ..	2,000	1,350	10	13,500	0.4	1	135	13,365
2. Punjab .. ..	15,000	10,000	12	1,20,000	4.0	Neg.	Neg.	1,20,000
3. Delhi Province .. ..	500	250	14	3,500	0.1	Neg.	Neg.	3,500
4. Mysore State .. ..	1,500	500	15	7,500	0.2	Neg.	Neg.	7,500
5. Coorg .. ..	581	300	20	6,000	0.2	Neg.	Neg.	6,000
6. Cochin .. ..	154	75	25	1,875	0.1	2	37	1,838
7. Travancore .. ..	675	450	30	13,500	0.4	Neg.	Neg.	13,500
8. Nizam's Dominions .. ..	3,077	2,000	30	60,000	2.0	1	600	59,400
9. Central Provinces .. ..	14,639	2,600	12	31,200	1.0	5	1,558	29,642
10. Central Provinces States (14) .. ..	2,133	400	12	4,800	0.2	5	240	4,560
11. United Provinces .. ..	9,996	6,600	12	79,200	2.7	Neg.	Neg.	79,200
12. United Provinces States .. ..	333	200	12	2,400	0.1	Neg.	Neg.	2,400
13. Bihar .. ..	71,200	57,000	10	5,70,000	19.0	2	11,400	5,58,600
14. Orissa .. ..	7,200	5,800	10	58,000	1.9	2	1,160	56,840
15. Bengal .. ..	99,015	66,000	30	19,80,000	65.9	2	59,400	19,20,500
16. Assam .. ..	6,000	4,000	13	52,000	1.8	Neg.	Neg.	52,000
<b>Total</b> .. ..	<b>2,33,983</b>	<b>1,57,525</b>	<b>19</b>	<b>30,03,475</b>	<b>(100)</b>	<b>2.48</b>	<b>74,530</b>	<b>29,28,945</b>

*Note.*—In the other areas the number of geese is negligible.

**APPENDIX VI.**  
*Production of Turkey Eggs.*

—	Estimated number of total birds.	Estimated number of layers.	Number of eggs laid annually per bird.	Annual production of eggs.	Proportion of total production. Per cent.	Number lost before collection.		Number collected.
						Per cent.	Number.	
1. North-West Frontier Province	500	350	45	15,750	3.9	1	157	15,593
2. Delhi Province .. ..	150	100	50	5,000	1.2	Neg.	Neg.	5,000
3. Mysore State .. ..	3,000	2,000	50	1,00,000	24.8	Neg.	Neg.	1,00,000
4. Cochin .. ..	924	460	25	11,500	2.9	2	230	11,270
5. Travancore .. ..	3,500	1,750	50	87,500	21.7	Neg.	Neg.	87,500
6. Nizam's Dominions ..	750	500	60	30,000	7.4	1	300	29,700
7. Central Provinces .. ..	654	400	20	8,000	2.0	5	400	7,600
8. United Provinces .. ..	6,598	4,350	30	1,30,500	32.4	Neg.	Neg.	1,30,500
9. United Provinces States ..	288	200	30	6,000	1.5	Neg.	Neg.	6,000
10. Bihar .. ..	435	175	16	2,800	0.7	2	56	2,744
11. Bengal .. ..	300	200	30	6,000	1.5	3	180	5,820
<b>Total India ..</b>	<b>17,099</b>	<b>10,485</b>	<b>38</b>	<b>4,03,050</b>	<b>(100)</b>	<b>0.32</b>	<b>1,323</b>	<b>4,01,727</b>

*Note.*—In the other areas the number of turkeys is negligible.



APPENDIX VII.

*Production of Guinea-fowl Eggs.*

	Estimated number of total birds.	Estimated number of layers.	Number of eggs laid annually per bird.	Annual production of eggs.	Proportion of total production. (Per cent.)	Number lost before collection.		Number collected.
						Per cent.	Number.	
1. North-West Frontier Province	150	50	40	2,000	Neg.	Neg.	Neg.	2,000
2. Punjab .. .. .	30,000	20,000	100	20,00,000	7.2	2	40,000	19,60,000
3. Patiala State .. .. .	4,456	3,000	45	1,35,000	0.5	2	2,700	1,32,300
4. Delhi Province .. .. .	225	150	60	9,000	0.1	10	900	8,100
5. Mysore State .. .. .	750	500	60	30,000	0.1	15	4,500	25,500
6. Cochin State .. .. .	308	150	40	6,000	Neg.	2	120	5,880
7. Travancore .. .. .	1,350	900	60	54,000	0.2	50	27,000	27,000
8. Nizam's Dominions .. .. .	7,500	5,000	72	3,60,000	1.3	20	72,000	2,88,000
9. Central Provinces .. .. .	2,138	1,069	70	74,830	0.3	5	3,741	71,089
10. United Provinces .. .. .	5,60,500	3,69,930	64	2,36,75,520	85.3	2	4,73,510	2,32,02,010
11. United Provinces States .. .. .	21,924	14,470	64	9,26,080	3.3	2	18,521	9,07,559
12. Bihar .. .. .	10,700	7,500	55	4,12,500	1.5	2	8,250	4,04,250
13. Orissa .. .. .	1,500	1,050	55	57,750	0.2	2	1,150	56,600
<b>Total India .. .. .</b>	<b>6,41,501</b>	<b>4,23,769</b>	<b>56</b>	<b>2,77,42,680</b>	<b>(100)</b>	<b>2.35</b>	<b>6,52,392</b>	<b>2,70,90,288</b>

*Note.*—In the other areas the number of guinea-fowls was negligible

APPENDIX VIII.

Laying Records of Desi Hens.

Source.	Type of birds.	Number of birds recorded.	Average number of eggs laid per bird.												Annual number of eggs per bird.	Number adopted per hen for all hens in the respective areas.
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.		
1. Government Farm, Far-nab (North-West Frontier Province).	(i) Local .. ..	13	3	6	5	6	1	4	6	7	2	2	9	3	54	
	(ii) .. ..	35	3	5	4	6	2	3	5	5	2	2	4	2	43	
	Average .. ..	..	3	5.5	4.5	6	1.5	3.5	5.5	6.0	2	2	6.5	2.5	48.5	49
2. Government Poultry Farm, Gurdaspur (Panjab).	Unimproved .. ..	210	0.5	2.8	4.1	2.7	2.8	3.7	2.4	2.5	1.8	1.1	1.4	1.6	27.4	
	(i) 1934. .. ..	133	1.5	2.2	4.3	3.3	4.1	3.0	3.4	2.7	2.0	2.6	2.1	2.8	24.0	
	(ii) 1935 .. ..	164	3.4	3.7	4.6	2.6	2.0	2.9	3.1	2.4	1.5	1.8	2.3	4.7	35.0	
	3 years' Average .. ..	..	1.9	2.9	4.3	2.9	3.0	3.2	3.0	2.5	1.8	1.8	1.9	3.0	32.1	55
3. State Farm, Baroda ..	Local .. ..	6	8.3	11.0	14.2	5.7	5.8	9.7	7.3	10.5	5.8	6.7	10.7	12.7	108.4	60
4. State Farm, Patancheru (Nizam's Dominions).	Local .. ..	..	7	7	5	8	8	5	3	5	6	4	5	6	69.0	62
5. Government Farm, Hosur (Madras Presidency).	(i) Tellicherry .. ..	10	6.5	10.7	6.5	9.1	9.7	11.3	7.5	8.4	8.9	9.4	9.3	9.3	106.8	
	(ii) Chittagong .. ..	8	12.3	13.5	11.7	9.6	10.8	10.8	13.3	11.6	9.7	10.7	9.1	14.1	137.2	
	Average .. ..	..	9.4	12.1	9.1	9.3	10.3	11.0	10.4	10.0	9.3	10.0	9.2	11.7	121.9	51
6. Government Farm, Dacca (Bengal).	.. ..	12	9.7	6.7	7.0	7.5	9.5	6.4	7.0	7.0	10.6	8.1	7.0	8.0	94.5	36
	All-India Average .. ..	..	6.5	7.5	7.4	6.6	6.4	6.5	6.0	6.8	5.9	5.5	6.7	7.3	79.1	53

APPENDIX IX.

Laying Records of Improved Hens.

Source.	Number of birds recorded.	Average number of eggs laid per bird.											Annual number of eggs per bird.	Average number adopted for all improved hens in the respective area.	
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.			December.
<i>Bombay Presidency.</i>															
1. Mission Farm, Sangli ..	78	12.9	10.6	9.4	9.4	12.4	12.9	12.0	7.8	8.4	7.6	7.6	10.4	121.4	..
2. Mission Farm, Valada ..	40	14.0	10.8	9.6	8.3	7.2	8.5	5.2	6.4	9.2	10.9	7.9	10.0	108.0	..
3. Kirlokar Farm, Kirlokarvadi.	44	11.9	10.16	11.9	10.1	11.0	11.8	11.1	9.1	8.9	9.2	8.4	9.7	123.26	..
4. Private Farm, Bhilawadi, District Satara.	26	8.8	10.6	11.6	12.3	11.3	13.6	13.2	9.6	8.5	8.3	8.5	8.4	124.7	..
5. Private Farm, Sangola .. (District Sholapur).	18	8.7	7.3	9.7	7.2	6.7	7.4	15.5	15.8	17.4	16.4	11.4	13.9	137.4	..
Bombay Presidency (Average)	..	12.0	10.3	10.3	9.5	10.5	11.4	10.9	8.7	9.5	9.4	8.3	10.2	121.0	85
6. State Farm, Hyderabad (Nizam's Dominions.)	3	21.7	20.0	16.7	16.7	13.3	8.3	8.3	1.7	1.7	13.3	20.0	21.7	163.4	127

APPENDIX IX—contd.  
Laying Records of Improved Hens—contd.

Sources.	Number of birds recorded.	Average number of eggs laid per bird.												Annual number of eggs per birds.	Average number adopted for all improved hens in the respective area.
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.		
7. Mr. Barton Wright's Farm, Trichur (Cochin).	26	10	12	15	14	14	13	15	13	12	10	4	6	138	100
8. Government Farm, Hosur (Madras Presidency).	34	12.7	11.5	12.4	12.2	12.9	12.5	10.5	11.6	10.3	11.9	11.6	13.0	132.1	102
9. United Provinces Poultry Association, Lucknow (U. P.).	17	22.2	19.7	20.8	14.0	6.4	10.0	14.4	8.4	7.0	..	12.1	21.7	156.7	120
10. Government Farm, Patna (Bihar.)	42	12.4	10.9	17.1	12.4	16.0	13.5	12.2	8.3	9.2	4.1	6.0	13.0	135.1	72
11. Government Farm, Darca (Bengal).	58	10.5	10.6	11.5	11.0	11.8	7.8	7.3	4.5	12.3	9.5	9.5	10.7	117.0	83
All India Average ..	..	12.0	10.9	12.0	10.8	11.7	11.2	10.8	8.5	10.0	8.9	8.4	10.9	126.1	103
12. College Farm, Mandalay (Burma).	31	9.8	11.8	11.7	11.9	8.2	9.8	8.8	8.8	7.3	6.0	5.0	9.0	107.6	101

APPENDIX X.

*Retention of Desi Hen Eggs.*

	Number of eggs collected. (Lakhs). (1)	Retained by the producers.				Total retained. (Lakhs). (6)	Balance available. (Lakhs). (7)
		For eating.		For hatching.			
		Per cent. (2)	Number (Lakhs). (3)	Per cent. (4)	Number (Lakhs). (5)		
1. Kashmir State .. .. .	465.9	10	46.5	25	116.4	162.9	303.0
2. North-West Frontier Province .. ..	464.9	10	46.4	33	153.4	190.8	265.1
3. North-West Frontier Province Agency Areas	226.1	10	22.6	33	74.6	97.2	128.9
4. British Baluchistan .. .. .	80.4	10	8.0	33	26.5	34.5	45.9
5. Baluchistan States .. .. .	119.4	10	11.9	33	39.4	51.3	68.1
6. Punjab .. .. .	1,896.3	10.7	202.9	8.3	157.3	360.2	1,536.0
7. Patiala State .. .. .	19.1	10	1.9	5	0.9	2.8	16.2
8. Punjab States (excluding Patiala State) ..	131.7	10	13.1	5	6.5	19.7	111.9
9. Delhi Province .. .. .	3.4	50	1.7	20	0.7	2.4	1.0
10. Rajputana .. .. .	195.7	40	79.4	30	59.6	139.1	56.6
11. Central India States .. .. .	135.0	40	54.0	30	40.5	94.5	40.5

12. Sind .. .. .	275.0	8	22.0	5	13.7	35.7	239.3
13. Khairpur State .. .. .	33.0	8	2.6	5	1.6	4.2	28.8
14. Western India States .. .. .	42.7	40	17.1	30	12.8	29.9	12.9
15. Gujarat Agency .. .. .	0.38	20	0.07	12.5	0.048	0.12	0.25
16. Baroda State .. .. .	86.4	20	17.2	12.5	10.8	28.0	58.3
17. Bombay Presidency .. .. .	2,700.3	45	1,215.1	3	81.0	1,296.1	1,404.2
18. Deccan States .. .. .	152.8	45	68.8	3	4.5	73.4	79.4
19. Mysore State .. .. .	1,029.1	34	349.8	34	349.8	699.7	329.3
20. Coorg .. .. .	7.6	1.3	0.1	33	2.5	2.7	4.8
21. Cochin .. .. .	116.3	24.5	28.4	8.1	9.4	37.9	78.3
22. Travancore .. .. .	1,109.7	15	166.4	10	110.9	277.4	832.2
23. Madras States (excluding Travancore and Cochin).	21.0	20	4.2	10	2.1	6.3	14.7
24. Madras Presidency .. .. .	3,304.1	2	66.0	18	594.7	660.8	2,643.3
25. Nizam's Dominions .. .. .	2,298.6	22	505.7	8	183.8	689.6	1,609.0
26. Central Provinces .. .. .	1,012.7	23	232.9	34	344.3	577.2	435.4
27. Central Provinces States (14) .. .. .	444.8	25	111.2	50	222.4	333.6	111.2
28. Eastern States (excluding Central Provinces States).	386.8	25	96.7	50	193.4	290.1	96.7
29. Bundelkhand Agency .. .. .	36.0	40	14.4	30	10.8	25.2	10.8
30. United Provinces .. .. .	3,741.6	10	374.1	10	374.1	748.3	2,993.2

APPENDIX X—concl'd.

Retention of Desi Hen Eggs—cont'd.

	Number of eggs collected. (Lakhs). (1)	Retained by the producers.				Total retained. (Lakhs). (6)	Balance available. (Lakhs). (7)
		For eating.		For hatching.			
		Per cent. (2)	Number. (Lakhs). (3)	Per cent. (4)	Number. (Lakhs). (5)		
31. United Provinces States .. ..	93.1	10	9.3	10	9.3	18.6	74.5
32. Bihar .. ..	2,311.1	59.21	1,368.4	18.79	434.2	1,802.6	508.4
33. Orissa .. ..	311.6	22	69.2	18	56.9	126.2	185.3
34. Bengal .. ..	3,093.3	3.0	92.8	50	1,546.6	1,639.4	1,453.9
35. Bengal States .. ..	109.5	3.0	3.3	50	54.7	58.0	51.5
36. Assam .. ..	261.4	41.8	109.3	28.7	75.0	184.3	77.0
37. Assam States .. ..	13.8	41.8	5.9	28.7	3.7	9.7	4.07
<b>Total</b> .. ..	<b>26,733.58</b>	<b>20.34</b>	<b>5,439.17</b>	<b>20.12</b>	<b>5,379.04</b>	<b>10,819.42</b>	<b>15,912.92</b>
1. Burma .. ..	371.7	6	23.9	60.9	226.5	249.5	123.2
2. Eastern States of Burma.. ..	5.9	6	0.3	60.9	3.5	3.8	2.1
<b>Total India</b> .. ..	<b>377.6</b>	<b>6</b>	<b>23.2</b>	<b>60.91</b>	<b>230.0</b>	<b>253.3</b>	<b>124.3</b>

APPENDIX XI.

*Retention of Improved Hen Eggs.*

	Number of eggs collected. (Thousand).	Retained by the producers.				Total retained. (Thousands).	Balance Available. (Thousands).
		For eating.		For hatching.			
		Per cent.	Number. (Thousands).	Per cent.	Number. (Thousands).		
1	2	3	4	5	6	7	
1. North-West Frontier Province	52.5	10	5.2	33	17.3	22.5	30.0
2. Punjab .. ..	105.3	Neg.	Neg.	60	63.2	63.2	42.1
3. Patiala State .. ..	165.8	10	16.5	5	8.2	24.8	141
4. Delhi Province .. ..	261.2	40	104.5	30	78.3	182.8	78.3
5. Rajputana .. ..	95.0	40	38	30	28.5	66.5	28.5
6. Central India States ..	95.0	40	38	30	28.5	66.5	28.5
7. Western India States ..	95.0	40	38	30	28.5	66.5	28.5
8. Bombay Presidency ..	416.5	Neg.	Neg.	15	62.4	62.4	354.0
9. Deccan States .. ..	124.9	Neg.	Neg.	15	18.7	18.7	106.2
10. Mysore State .. ..	694.8	34	236.2	34	236.2	472.4	222.3
11. Coorg .. ..	67.9	4	2.7	6	4	6.7	61.1



APPENDIX XI—contd.

Retention of Improved Hen Eggs—contd.

	Number of eggs collected. (Thousand).	Retained by the producers.				Total retained. (Thousands).	Balance Available. (Thousands).
		For eating.		For hatching.			
		Per cent.	Number. (Thousands).	Per cent.	Number. (Thousands).		
	1	2	3	4	5	6	7
12. Cochin .. .. .	970.2	24.5	237.6	4.05	39.6	277.2	693.0
13. Travancore .. ..	6,864.1	15	1,029.6	10	666.4	1,716	5,148.1
14. Madras Presidency ..	1,500.0	4	60	6	90	150	1,350.0
15. Nizam's Dominions ..	1,584.1	22	348.5	15	237.6	586.1	998.0
16. Central Provinces.. ..	651.7	23	149.8	34	221.5	371.4	280.2
17. United Provinces .. ..	53,635.2	10	5,363.5	10	5,363.5	10,727	42,908.1
18. United Provinces States ..	1,345.6	10	134.5	10	134.5	269.1	1,076.5
19. Bihar .. .. .	8,748.6	59.21	5,178.8	18.79	1,643.4	6,822.3	1,924.2
20. Orissa .. .. .	304.0	59.2	180.0	18.8	57.1	237.1	66.8
21. Bengal .. .. .	166.7	3.0	5.0	60.0	100.0	105.0	61.7
22. Bengal States .. .. .	65.1	3.0	1.9	60.0	39.0	40.9	24.2
Total India .. .. .	78,007.2	16.88	13,167.9	11.77	9,186.4	22,355.0	55,651.6
Burma .. .. .	2,168.4	7.7	167.2	8.2	179.0	346.3	1,827

## APPENDIX XII

*Retention of Duck Eggs*

	Number of eggs collected. (Lakhs). 1	Number retained by producers.				Total retained. (Lakhs). 6	Balance available. (Lakhs). 7
		For eating.		For hatching.			
		Per cent. 2	Number. (Lakhs). 3	Per cent. 4	Number. (Lakhs). 5		
1. North-West Frontier Province.	23.1	6	1.4	33	7.7	9.1	14.5
2. Punjab .. ..	39.2	3.06	1.2	15.3	6.0	7.2	32.0
3. Patiala State .. ..	0.6	3.0	0.01	3.0	0.01	0.03	0.5
4. Sind .. ..	0.6	2	0.01	5	0.03	0.4	0.6
5. Bombay Presidency .. ..	14.2	5	0.7	60	8.5	9.2	4.9
6. Mysore State .. ..	3.9	7	0.2	7	0.2	0.5	3.4
7. Coorg .. ..	0.7	2	0.01	3	0.02	0.03	0.7
8. Cochin .. ..	70.1	4.4	3.2	1.5	1.07	4.3	65.8
9. Travancore .. ..	196.0	5	9.8	5	9.8	19.6	176.4
10. Madras Presidency .. ..	2,003.5	3	40.1	3	60.2	100.4	1,909.0
11. Nizam's Dominions .. ..	30.1	22	6.6	8	2.4	9.0	21.1

APPENDIX XII—contd.

Retention of Duck Eggs.

	Number of eggs collected.  (Lakhs).  (1)	Retained by the Producer.				Total retained.  (Lakhs). (6)	Balance available.  (Lakhs). (7)
		For eating.		For hatching.			
		Per cent.  (2)	Number. (Lakhs). (3)	Per cent.  (4)	Number. (Lakhs). (5)		
12. Central Provinces ..	11.0	20	2.2	50	5.4	7.6	3.2
13. Central Provinces States ..	1.5	20	0.3	50	0.7	1.0	0.4
14. United Provinces ..	341.9	10	34.1	10	34.1	68.3	273.5
15. United Provinces States ..	16.9	10	1.6	10	1.6	3.3	13.5
16. Bihar .. ..	170.8	50	85.4	5	8.5	93.9	76.8
17. Orissa .. ..	129.5	15.1	19.6	3.5	4.5	24.2	105.3
18. Bengal .. ..	1,725.2	5.0	86.2	15.0	258.8	345.0	1,380.2
19. Bengal States .. ..	33.5	5.0	1.7	15.0	5.0	6.7	26.8
20. Assam .. ..	171.3	38.2	65.5	28.8	49.3	114.8	56.4
21. Assam States .. ..	1.6	38.2	0.6	28.8	0.4	1.0	0.5
Total India ..	4,991.7	7.2	380.43	9.3	464.23	625.2	4,165.5
Burma .. ..	1,163.5	Neg.	Neg.	2.55	29.6	29.6	1,133.7

## APPENDIX XIII.

*Retention of Goose Eggs.*

	Number of eggs collected.	Retained by the Producers.				Total retained.	Balance available.
		For eating.		For hatching.			
		Per cent.	Number.	Per cent.	Number.		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. North-West Frontier Province	13,365	Neg.	Neg.	95	12,696	12,696	669
2. Punjab .. ..	120,000	Neg.	Neg.	Mostly	120,000	120,000	Neg.
3. Delhi Province .. ..	3,500	Neg.	Neg.	Mostly	3,500	3,500	Neg.
4. Mysore State .. ..	7,500	Neg.	Neg.	Mostly	7,500	7,500	Neg.
5. Coorg .. ..	6,000	Neg.	Neg.	Mostly	6,000	6,000	Neg.
6. Cochin .. ..	1,838	25	459	15	276	735	1,103
7. Travancore .. ..	13,500	Neg.	Neg.	50	6,750	6,750	6,750
8. Nizam's Dominions ..	59,400	5	2,970	95	56,430	59,400	Neg.
9. Central Provinces ..	29,642	Neg.	Neg.	Mostly	29,642	29,642	Neg.
10. Central Provinces States (14)	4,560	Neg.	Neg.	Mostly	4,560	4,560	Neg.

**APPENDIX XIII**

*Retention of Goose Eggs—contd.*

	Number of eggs collected.	Retained by the producers.				Total retained.	Balance available.
		For eating.		For hatching.			
		Per cent.	Number.	Per cent.	Number.		
	1	2	3	4	5	6	7
11. United Provinces ..	79,200	Neg.	Neg.	Mostly	79,200	79,200	Neg.
12. United Provinces States ..	2,400	Neg.	Neg.	Mostly	2,400	2,400	Neg.
13. Bihar .. .. .	5,53,600	20	1,11,720	7	39,102	150,822	4,07,778
14. Orissa .. .. .	57,340	20	11,368	7	3,978	15,346	41,494
15. Bengal .. .. .	19,20,600	10	1,92,060	90	17,28,540	19,20,600	Neg.
16. Assam .. .. .	52,000	25	13,000	35	18,200	31,200	20,800
<b>Total India ..</b>	<b>29,28,945</b>	<b>11-33</b>	<b>3,31,577</b>	<b>73-33</b>	<b>21,18,774</b>	<b>24,50,351</b>	<b>4,78,594</b>

APPENDIX XIV.

*Retention of Turkey Eggs.*

	Number of eggs collected.	Retained by the producers.				Total retained.	Balance available.
		For eating.		For hatching.			
		Per cent.	Number.	Per cent.	Number.		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. North-West Frontier Province.	15,593	17	2,650	33	5,145	7,795	7,798
2. Delhi Province .. ..	5,000	Neg.	Neg.	Mostly	5,000	5,000	Neg.
3. Mysore State .. ..	1,00,000	Neg.	Neg.	Mostly	1,00,000	1,00,000	Neg.
4. Cochin .. ..	11,270	25	2,817	15	1,690	4,507	6,763
5. Travancore .. ..	87,500	Neg.	Neg.	30	26,250	26,250	61,250
6. Nizam's Dominions ..	29,700	5	1,485	95	28,215	29,700	Neg.
7. Central Provinces ..	7,600	5	380	95	7,220	7,600	Neg.
8. United Provinces ..	1,30,500	Neg.	Neg.	Mostly	1,30,500	1,30,500	Neg.
9. United Provinces States ..	6,000	Neg.	Neg.	Mostly	6,000	6,000	Neg.
10. Bihar .. ..	2,744	Neg.	Neg.	Mostly	2,744	2,744	Neg.
11. Bengal .. ..	5,820	30	1,746	70	4,074	5,820	Neg.
<b>Total India ..</b>	<b>4,01,727</b>	<b>2.25</b>	<b>9,078</b>	<b>78.86</b>	<b>3,16,838</b>	<b>3,25,916</b>	<b>75,811</b>

**APPENDIX XV.**  
*Retention of Guinea-Fowl Eggs.*

	Number of eggs collected.  (1)	Retained by Producers.				Total retained.  (7)	Balance available.  (8)
		For eating.		For hatching.			
		Per cent. (2)	Number. (3)	Per cent. (4)	Number. (5)		
1. North-West Frontier Province.	2,000	10	200	33	660	860	1,140
2. Punjab .. .. .	19,60,000	3	60,000	25	5,00,000	5,60,000	14,00,000
3. Patiala State .. ..	1,32,300	7	9,260	10	13,230	22,490	1,09,810
4. Delhi Province .. ..	8,100	Neg.	Neg.	Mostly	8,100	8,100	Neg.
5. Mysore State .. .. .	25,500	Neg.	Neg.	Mostly	25,500	25,500	Neg.
6. Cochin State .. .. .	5,880	25	1,470	15	882	2,352	3,528
7. Travancore State .. ..	27,000	Neg.	Neg.	25	6,750	6,750	20,250
8. Nizam's Dominions ..	2,88,000	5	14,400	95	2,73,600	2,88,000	Neg.
9. Central Provinces .. ..	71,089	15	10,663	60	42,653	53,316	17,773
10. United Provinces .. ..	232,02,010	10	23,20,201	50	116,01,005	139,21,206	92,80,804
11. United Provinces States ..	9,07,559	10	90,755	50	4,53,779	5,44,534	2,63,025
12. Bihar .. .. .	4,04,250	15	60,637	10	40,425	1,01,062	2,03,188
13. Orissa .. .. .	56,350	15	8,452	10	5,635	14,087	42,263
<b>Total India .. .. .</b>	<b>270,90,038</b>	<b>9.5</b>	<b>25,76,038</b>	<b>47.88</b>	<b>129,72,219</b>	<b>155,48,257</b>	<b>115,41,781</b>

## APPENDIX XVI.

*The number and proportion of Hen Eggs (Desi and Improved) and Duck Eggs in each area.*

	Desi hen eggs.		Improved hen eggs.		Duck eggs.	
	Production (Lakhs).	Percentage of total number of eggs produced in the area.	Production (Lakhs).	Percentage of total number of eggs produced in the area.	Production (Lakhs).	Percentage of total number of eggs produced in the area.
1. Kashmir .. ..	503.7	100.0	Neg.	..	Neg.	..
2. North West Frontier Province.	469.5	95.1	0.5	0.1	23.3	4.8
3. North-West Frontier Province Agency Areas.	228.3	100.0	Neg.	..	Neg.	..
4. British Baluchistan ..	81.2	100.0	Neg.	..	Neg.	..
5. Baluchistan States ..	120.6	100.0	Neg.	..	Neg.	..
6. Punjab .. ..	1,915.4	97.9	1.05	0.05	40.0	2.05
7. Patiala State ..	19.1	89.7	1.6	7.5	0.6	3.8
8. Punjab States (excluding Patiala State).	131.7	100.0	Neg.	..	Neg.	..
9. Delhi Province ..	3.5	56.0	2.75	44.0	Neg.	..
10. Rajputana .. ..	206.9	99.5	1.0	0.5	Neg.	..
11. Central India States ..	140.6	99.3	1.0	0.7	Neg.	..
12. Sind .. ..	275.0	99.8	Neg.	..	0.6	0.2
13. Khairpur State ..	33.0	100.0	Neg.	..	Neg.	..
14. Western India States ..	44.5	97.8	1.0	2.2	Neg.	..
15. Gujarat Agency ..	0.4	100.0	Neg.	..	Neg.	..
16. Baroda State ..	90.0	100.0	Neg.	..	Neg.	..
17. Bombay Presidency ..	2,783.9	99.3	4.25	0.2	15.0	0.5
18. Deccan States ..	157.6	99.2	1.27	0.8	Neg.	..
19. Mysore State ..	1,066.4	98.9	7.2	0.7	4.0	0.4
20. Coorg .. ..	7.7	83.8	0.69	7.5	0.8	3.7
21. Cochin .. ..	118.7	59.4	9.9	4.9	71.5	35.7
22. Travancore .. ..	1,155.9	81.1	71.5	5.1	198.0	13.8
23. Madras States (excluding Cochin and Travancore).	21.7	100.0	Neg.	..	Neg.	..
24. Madras Presidency ..	3,371.5	61.3	15.3	0.3	3,115.3	38.4
25. Nizam's Dominions ..	2,321.9	98.0	15.0	0.7	30.5	1.3



## APPENDIX XVI—contd.

The number and proportion of Hen Eggs (Desi and Improved) and Duck Eggs in each area.

	Desi hen eggs.		Improved hen eggs.		Duck eggs.	
	Production (Lakhs).	Percentage of total number of eggs produced in the area.	Production (Lakhs).	Percentage of total number of eggs produced in the area.	Production (Lakhs).	Percentage of total number of eggs produced in the area.
26. Central Provinces ..	1,066.0	98.2	6.86	0.6	11.6	1.1
27. Central Provinces States (14).	468.2	99.7	Neg.	..	1.5	0.2
28. Eastern States (excluding 14 Central Provinces States).	407.1	100.0	Neg.	..	Neg.	..
29. Bundelkhand Agency ..	37.6	100.0	Neg.	..	Neg.	..
30. United Provinces ..	2,779.3	81.0	541.7	11.6	342.2	7.4
31. United Provinces States	94.0	75.4	13.59	10.9	17.1	12.7
32. Bihar .. ..	2,258.3	69.9	69.25	2.4	174.3	6.7
33. Orissa .. ..	217.9	69.7	3.1	0.7	125.2	29.6
34. Bengal .. ..	2,180.0	64.2	1.7	0.03	1,778.5	25.2
35. Bengal States ..	112.9	76.2	0.67	0.5	24.6	23.3
36. Assam .. ..	262.2	60.4	Neg.	..	172.6	39.6
37. Assam States ..	13.9	89.7	Neg.	..	1.6	10.2
Total India ..	27,276.0	82.1	791.86	2.4	5,169.4	15.6
1. Burma .. ..	282.2	23.5	21.79	1.2	1,224.7	76.9
2. Eastern States of Burma	6.0	100.0	Neg.	..	Neg.	..
Total Burma ..	288.2	23.5	21.79	1.2	1,224.7	74.9

APPENDIX XVII.

Monthly export of Eggs from Tuticorin (Madras Presidency) to Ceylon.

	1930-31.		1931-32.		1932-33.		1933-34.		1934-35.		1935-36.		1936-37.	
	Lakhs.	Percent- age to annual.	Lakhs.	Percent- age to annual.	Lakhs.	Percent- age to annual.	Lakhs.	Percent- age to annual.	Lakhs.	Percent- age to annual.	Lakhs.	Percent- age to annual.	Lakhs.	Percent- age to annual.
April ..	10.70	9.4	6.31	6.4	6.01	6.7	4.59	6.3	5.59	29.1	0.2	9.4	.08	3.2
May ..	9.36	8.2	4.58	4.7	5.87	6.5	3.83	5.3	4.27	22.2	0.2	9.4	.05	2.0
June ..	7.95	7.0	5.29	5.4	6.01	6.7	4.05	5.6	5.05	26.3	0.2	9.4	.19	7.6
July ..	9.20	8.0	6.00	6.1	5.7	6.4	5.90	8.1	3.42	17.8	0.2	9.4	.15	6.0
August ..	10.46	9.1	7.91	8.1	8.14	9.1	6.30	8.7	0.13	0.7	0.2	9.4	.19	7.6
September	9.36	8.2	10.09	10.3	8.80	9.8	9.16	12.6	0.18	0.9	0.2	9.4	.38	15.1
October ..	13.32	11.6	12.05	12.3	10.48	11.7	9.39	12.9	0.13	0.7	0.2	9.4	.29	11.5
November ..	11.92	10.4	10.52	10.7	10.86	12.1	6.45	8.9	0.10	0.5	0.2	9.4	.17	6.8
December ..	9.17	8.0	11.19	11.4	8.88	9.9	6.13	8.5	0.16	0.8	0.2	9.4	.52	20.7
January ..	6.66	5.8	9.55	9.8	6.93	7.7	4.34	6.0	0.05	0.3	.08	3.8	.12	4.8
February ..	8.85	7.7	7.69	7.8	6.64	7.4	5.96	8.2	0.05	0.3	.08	3.8	.22	8.7
March ..	7.57	6.6	6.85	7.0	5.38	6.0	6.44	8.9	0.08	0.4	.16	7.6	.15	6.0
Total	114.52	(100)	98.03	(100)	89.70	(100)	72.54	(100)	19.21	(100)	2.12	(100)	2.51	(100)

APPENDIX XVIII.  
*Monthly Demand for farm produced improved Eggs (1936).*

Name of the Farm.	Monthly sale of eggs.												Total sales.	Total production.	Percentage of sales to production.
	January	February	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.			
Reverend Losey's Farm, Bangalore.	2,400	2,400	2,400	2,100	2,100	2,100	1,920	1,920	2,400	2,400	2,400	2,400	26,940	27,840	96.8
U. P. P. A. Model Farm, Lucknow.	2,212	2,278	2,440	1,159	696	798	1,390	1,580	1,768	1,445	2,080	2,146	19,987	23,829	84.6
Government Central Poultry Farm, Kiroo, Poona.	826	1,032	1,112	1,229	1,388	1,262	1,373	1,114	907	1,518	1,318	1,144	14,286	18,074	79.0
Livestock Research Station, Hoew, Madras Presidency.	382	140	673	1,072	1,068	773	530	447	946	186	297	397	6,909	15,208	45.4
Government Experimental Farm, Kenda, Bihar.	1,325	1,161	1,213	1,118	1,116	899	873	776	640	1,027	979	607	11,722	13,663	86.4
Government Poultry Farm, Gurdaspur, Punjab.	90	168	510	494	1,180	753	697	460	173	324	171	132	5,152	11,292	45.6
Faruqui Poultry Farm Amroha.	1,450	1,232	875	180	101	598	699	737	896	910	301	1,585	9,564	11,096	86.9
Total ..	8,686	8,396	9,223	7,415	7,646	7,183	7,482	7,033	7,730	7,810	7,546	8,411	94,500	1,20,616	78.4
Percentage of monthly sales to the annual.	9.2	8.9	9.7	7.8	8.1	7.8	7.9	7.4	8.2	8.3	8.0	8.9	(100.0)	..	..

## APPENDIX XIX.

*Baking experiments.*

Local bakers do not generally use duck eggs in making of cakes, etc. The general opinion is that duck eggs are not as "light" as hen eggs and that cakes made from the former do not rise or bake so well. To verify this, a small experiment was made with cakes made from both the types of eggs. A common recipe was followed as under :—

4 oz. flour.  
4 oz. sugar.  
2 oz. butter.  
2 eggs (3.5 oz. in weight).

After mixing the sugar with butter and adding the flour, the beaten eggs were added to the mix. In beating the white of duck eggs, it was observed that it did not rise as much as the white of the hen eggs. After thoroughly mixing, the batter was put in baking tins of same size (4 inches in diameter and 3 inches high). The baking continued for 50 minutes, and it was observed that both the cakes were ready in about the same time.

It was noticed that the cake made out of hen eggs rose about 3 inches in the centre, while the one made from duck eggs rose only 1½ inches. The texture of the duck egg cake was inferior, as would be seen from the top plate facing page 45.

*With yolks only.*

In this experiment the baking was done with whole eggs, *i.e.*, with both the white and yolk together. When, however, only the yolks were used, it was found that there was a considerable improvement in the quality of the cake made out of duck eggs. To get the required weight of yolks, 5 large hen eggs and 5 small duck eggs were taken, and 2½ oz. of yolk was used in either case. The quantity of other ingredients, size of baking tins and the time taken for baking, etc., were the same as used in the cakes made from whole eggs.

It was found in this second experiment that there was no difference between the two cakes. The texture, size, etc., was nearly the same as would be seen from the bottom plate facing page 45. There was no appreciable difference in the flavour too. Since the yolks of the duck eggs are generally of a deeper shade than those of the hen eggs, the colour of the cake made from duck yolks, was no doubt slightly darker than the usual light lemon shade.

The two experiments were no doubt crude. For instance, the rising properties of flour used were unknown and so also the temperature of the oven. The use of baking powders was intentionally avoided. The experiments, however, go to show that under proper conditions, *e.g.*, temperature, quality of flour, proportion of eggs used, the use of baking powder, etc., it may reasonably be expected that as good confectionery could be made out of the duck eggs as with the hen eggs.

APPENDIX XX.

Monthly arrivals of Eggs at Important Markets.

(Expressed in terms of percentages to the annual.)

	Funjab.			Delhi.			Sind.			Baroda.	Bombay.		
	Lahore. (a)	Rawal- pindi. (j)	Average.				Karachi, Hyderabad Sukkur.		Average.	Baroda. (b)	Bombay (c).		Average.
	1934 %	1934 %	%	1933 %	1934 %	Average. %	1934 %	1935 %	%	%	1934 %	1935 %	%
January ..	14.7	8.9	11.8	13.7	12.0	13.9	11.1	12.0	11.65	8.7	8.5	8.9	8.7
February ..	13.6	3.1	8.35	14.6	14.9	14.8	10.4	8.6	9.5	9.0	8.3	8.8	8.55
March ..	9.4	18.2	13.8	10.9	7.8	9.3	7.6	8.7	8.25	9.5	9.3	10.2	9.6
April ..	4.9	14.9	9.9	6.0	4.9	5.4	7.4	7.0	7.2	12.1	6.5	6.7	6.6
May ..	2.3	7.3	4.8	4.8	3.5	4.1	7.6	7.7	7.6	12.2	5.7	5.8	5.65
June ..	1.2	7.3	4.25	1.9	3.7	2.9	5.8	6.1	5.9	9.5	7.3	6.3	6.8
July ..	0.7	7.1	3.9	2.8	4.4	3.6	5.4	5.8	5.6	4.9	8.1	9.4	8.7
August ..	0.8	21.5	11.15	3.1	3.8	3.4	6.1	5.4	5.7	5.1	8.1	7.9	8.0
September ..	0.9	4.6	3.75	4.2	4.3	4.2	6.2	6.3	6.2	6.9	10.5	9.1	9.8
October ..	8.8	4.9	6.85	9.0	11.3	10.2	8.5	8.2	8.4	10.1	7.5	7.8	7.7
November ..	19.6	1.3	10.45	13.2	13.8	13.5	11.1	11.3	11.2	6.9	8.8	9.1	8.9
December ..	23.1	0.9	12.0	15.8	15.6	15.7	12.8	12.9	12.9	5.1	11.4	10.2	10.8
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
Total annual quantity in maunds.	2,402	329	2,731	3,616	2,841	3,678	4,881	4,929	4,905	566	50,763	51,897	51,180

284

(a) From North-West Frontier Province only. Stations, and also by country boats.

(b) From Bilimora only.

(c) Total of arrivals by rail at Victoria Terminals, Bysalle and Bombay Central

APPENDIX XX—contd.

—	Kathiawar. (a)					Mysore.	Madras	Nizam's Dominions.			Central Provinces.	Central India States.
	Porbandar.	Morvi.	Navagadh.	Bhavnagar.	Average.	Bangalore. (b)		Hyderabad and Secunderabad.		Average.	Kamptos.	Mhow (c)
	1934-35. %	1934-35. %	1934-35. %	1934-35. %	%	1934-35. %	1934-35. %	1934 %	1935 %	%	1934-35. %	1934-35. %
January .. ..	18.6	8.3	13.8	12.1	13.3	8.4	11.1	7.6	12.6	10.3	5.8	8.6
February .. ..	11.5	12.8	11.0	16.2	13.1	12.2	10.4	10.0	9.9	10.0	15.7	8.6
March .. ..	6.4	6.8	7.3	6.0	6.8	8.2	10.2	8.7	11.0	10.0	27.5	6.9
April .. ..	2.6	3.8	3.7	1.7	2.8	5.8	3.5	7.1	5.6	6.3	..	7.8
May .. ..	1.3	2.2	..	..	0.9	5.0	3.4	6.9	3.8	5.2	..	4.3
June .. ..	5.1	3.0	7.3	5.2	5.1	5.8	4.2	4.6	2.5	3.4	..	6.9
July .. ..	7.0	12.8	0.4	5.2	7.7	4.0	6.7	7.5	4.7	6.0	..	8.6
August .. ..	4.5	7.5	8.3	8.7	7.2	6.5	10.6	8.4	6.0	7.1	13.7	11.2
September .. ..	7.7	13.5	7.3	8.1	9.1	8.7	9.4	8.2	7.2	7.7	..	11.2
October .. ..	18.6	11.3	11.0	16.8	14.9	13.2	13.0	11.2	10.6	10.8	9.8	10.4
November .. ..	7.7	6.7	13.8	11.6	9.8	11.3	10.1	9.4	13.5	11.6	..	8.6
December .. ..	9.0	11.3	10.1	7.5	9.3	10.0	7.4	10.4	12.6	11.6	27.5	6.9
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
Total annual quantity in maunds.	156	133	109	173	571	3,598	18,052	680	815	748	51	116

(a) From Billimora only.

(b) Through South Indian Railway only.

(c) From Central Provinces only.

APPENDIX XX—concl'd.

	Bihar.			Bengal.	United Provinces.											India.	
	Patna.	Dina- pur.	Average.	Calcutta.	Saharnpur.		Dehra Dun.		Allahabad. (a)	Benares.		Lucknow.			Agra.	Average.	Average of 27 Markets.
	1935 %	1935 %	%	1934 %	1933 %	1934 %	1933 %	1934 %	1933 %	1933 %	1934 %	1933 %	1934 %	1935 %	1935 %	%	%
January .. ..	14.0	10.8	12.9	8.0	8.2	2.3	..	..	24.7	10.2	34.2	15.2	18.6	18.9	10.3	14.7	9.3
February .. ..	13.1	12.5	12.3	6.4	5.45	6.8	..	..	16.5	9.2	16.0	14.9	16.9	7.6	19.2	11.0	8.3
March .. ..	7.4	7.6	7.4	5.8	11.8	3.7	..	2.2	14.3	8.7	5.2	7.4	9.1	10.2	10.2	7.7	8.6
April .. ..	4.2	2.7	3.7	3.6	5.45	2.3	10.3	3.9	3.8	..	1.6	6.3	4.1	7.4	1.7	4.7	5.2
May .. ..	1.6	4.1	2.3	4.3	18.2	6.8	19.3	11.2	0.8	..	..	3.6	2.2	2.0	1.7	5.1	4.9
June .. ..	2.6	4.6	3.3	6.5	5.45	12.0	4.9	15.2	..	..	..	2.5	1.2	1.4	..	3.2	6.0
July .. ..	4.6	5.1	4.7	6.4	9.1	18.0	17.1	19.1	..	2.6	3.6	6.9	1.6	2.8	..	6.3	7.1
August .. ..	6.0	6.8	6.3	11.5	8.2	22.6	9.4	11.2	..	5.1	10.9	4.2	4.0	4.6	5.2	6.6	8.9
September .. ..	6.5	5.4	6.3	9.1	10.0	15.9	12.1	21.9	2.3	5.1	7.8	4.8	4.6	3.6	1.7	7.1	8.9
October .. ..	9.8	11.9	10.5	8.4	5.45	3.0	23.3	13.6	7.5	16.8	6.2	7.6	6.9	7.2	5.2	9.4	9.0
November .. ..	14.5	14.0	14.3	10.6	2.7	4.5	3.6	1.7	11.3	21.9	7.8	11.4	14.9	14.4	22.3	11.3	10.4
December .. ..	16.7	14.5	16.0	19.4	10.0	3.0	..	..	18.8	20.4	6.7	15.2	14.9	19.8	22.4	12.9	13.4
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)
Total annual quantity in maunds.	768	869	1,137	34,095	110	133	223	178	133	196	193	525	562	500	57	1,232	122,660

(a) From Calcutta only.

## APPENDIX XXI.

### *Monthly wholesale prices of Desi Hen Eggs.*

(In rupees and annas per thousand.)

	Jan- uary.	Feb- ruary.	March.	April.	May.	June.	July.	August	Sep- tember.	October.	Novem- ber.	Decem- ber.	Average.
	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.
North West Frontier Province (1935).	20 13	18 2	15 9	15 9	15 9	16 15	18 2	18 2	18 2	18 2	18 2	18 2	17 10
Punjab (1934) ..	25 0	23 2	21 14	21 14	20 10	20 0	20 10	20 10	20 10	20 10	23 12	25 0	22 0
Delhi (1935) ..	27 8	24 8	25 12	22 5	19 13	21 6	22 4	22 13	23 8	24 6	26	31 9	24 4
Baroda (1934-35) ..	25 15	24 12	24 9	27 11	29 15	31 4	29 7	33 15	28 9	26 10	29 7	29 1	28 7
Bombay (1934-35) ..	24 8	22 14	23 6	25 10	26 15	27 10	27 4	29 2	26 7	25 14	27 6	26 7	26 2
Cochin (1935) ..	18 0	17 0	16 0	17 0	18 0	20 0	25 0	22 0	26 0	18 0	21 0	20 0	19 13
Travancore (1935) ..	15 10	15 12	15 5	15 10	16 11	18 12	24 11	18 15	20 5	17 3	18 12	18 12	18 1
Madras (1937) ..	20 0	20 0	20 0	22 14	20 0	19 8	22 14	20 0	20 0	20 0	20 0	20 0	20 7
Nizam's Dominions (1936).	32 2	32 2	27 14	27 14	27 14	30 0	30 0	30 0	30 0	30 0	30 0	32 2	30 0
Bengal (1929-36) ..	18 15	17 15	14 3	12 15	16 4	18 13	19 14	20 0	24 3	23 6	19 6	16 4	18 8
Assam (1936) ..	19 8	18 8	18 0	18 0	21 8	23 8	26 8	27 8	27 8	26 8	25 8	25 8	23 3
Average ..	22 9	21 6	20 3	20 11	21 3	22 8	24 4	23 15	24 2	22 13	23 8	23 15	22 9
Monthly Index ..	100	95	89	92	94	100	108	106	107	101	104	106	(100)



APPENDIX XXII.

Monthly wholesale prices of Hen Eggs in Bengal.

(In rupees and annas per thousand).

	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	Average 1929—36.	Monthly Index.
	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	Rs. as.	
January .. ..	32 0	28 0	20 0	14 0	12 8	16 8	13 8	14 12	18 15	102
February .. ..	33 0	20 4	18 0	16 8	10 10	20 4	12 12	12 4	17 15	97
March .. ..	30 0	19 10	12 12	9 6	10 10	10 8	10 12	9 12	14 8	77
April .. ..	23 0	16 0	12 4	11 0	9 10	9 8	9 8	10 12	12 15	70
May .. ..	25 0	20 8	13 0	18 0	15 8	12 0	12 4	13 8	16 4	88
June .. ..	40 0	21 0	18 4	14 4	12 8	15 0	12 0	17 8	18 13	102
July .. ..	35 4	21 0	15 0	20 12	18 12	14 8	16 12	16 12	19 14	107
August .. ..	28 8	29 8	15 0	17 0	17 0	19 8	15 8	20 0	20 0	106
September .. ..	32 8	27 12	24 4	21 0	24 4	20 12	19 12	23 0	24 8	131
October .. ..	35 0	28 0	21 4	22 0	20 0	19 8	20 0	21 0	23 6	126
November .. ..	35 0	27 0	20 0	17 12	12 0	11 0	14 8	17 12	19 6	106
December .. ..	22 0	24 0	15 8	14 8	11 12	13 8	13 0	15 12	16 4	82
Average .. ..	30 15	23 9	17 2	16 8	14 10	15 2	14 2	16 1	18 2	(100)

## APPENDIX XXIII.

Monthly wholesale prices of Duck Eggs in Bengal.  
(In rupees and annas per thousand.)

	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.	Average 1929-36.	Monthly Index.
	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.	Rs. AS.	
January .. .. .	32 0	24 12	15 0	14 8	12 8	12 8	11 12	14 4	17 3	103
February .. .. .	33 0	23 12	20 0	18 8	10 10	13 8	12 8	14 4	18 4	109
March .. .. .	30 0	21 12	15 0	15 4	10 10	11 0	12 0	12 12	16 1	96
April .. .. .	28 4	22 0	17 12	10 8	9 6	12 4	10 8	10 12	14 15	89
May .. .. .	27 8	25 0	13 0	12 0	13 4	11 8	13 0	9 4	15 9	93
June .. .. .	27 12	21 0	15 4	12 8	12 8	10 8	12 0	12 0	15 7	92
July .. .. .	25 0	21 0	15 0	13 4	13 4	12 8	15 12	12 12	16 1	96
August .. .. .	29 0	23 0	14 0	14 8	14 6	12 0	13 0	13 0	16 10	99
September .. .. .	30 0	26 4	22 6	15 0	14 8	14 0	12 12	16 12	18 15	113
October .. .. .	27 8	26 0	22 0	22 0	17 0	14 4	13 4	14 0	19 12	118
November .. .. .	22 0	26 0	17 0	17 12	14 0	10 8	14 4	12 4	16 12	100
December .. .. .	22 0	20 0	12 12	14 0	11 12	10 0	13 0	13 12	14 11	88
Average .. .. .	27 11	23 9	16 10	14 10	12 13	12 1	12 13	13 0	16 11	(100)

APPENDIX XXIV.

Weekly, monthly and annual prices of Hen Eggs in Gujarat (Bombay Presidency).

(In rupees and annas per hundred).

Month.	Week.	Pardi.	Chikhli.	Gamdavi.	Gamdavi.	Chikhli.	Gamdavi.	Average. 6 years'
		1929.	1930.	1931.	1932.	1933.	1934.	
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
January .. .. .	1st .. ..	4 0 0	4 2 0	3 6 0	2 15 6	2 14 9	2 7 0	3 5 0
	2nd .. ..	3 15 0	3 14 4	3 2 9	2 14 6	2 13 0	2 7 0	3 3 0
	3rd .. ..	3 11 0	3 11 9	3 0 0	2 12 0	2 12 0	2 7 0	3 1 0
	4th .. ..	3 4 0	3 12 6	2 15 0	2 10 3	2 10 0	2 8 0	2 15 0
	Average ..	3 12 0	3 14 0	3 2 0	2 13 9	2 12 0	2 7 0	3 2 0
February .. .. .	1st .. ..	3 6 0	3 10 6	3 0 0	2 10 0	2 8 6	2 8 0	2 15 0
	2nd .. ..	3 10 0	3 9 6	3 1 6	2 11 0	2 8 0	2 7 6	3 0 0
	3rd .. ..	3 9 0	3 7 3	3 2 0	2 15 0	2 8 0	2 4 9	3 0 0
	4th .. ..	3 6 0	3 7 9	3 1 11	2 14 4	2 8 0	2 1 3	2 15 0
	Average ..	3 8 0	3 9 0	3 1 0	2 12 0	2 8 0	2 5 0	2 15 0

1910

March	1st	3 4 0	3 4 0	3 2 9	2 14 0	2 8 0	2 0 9	2 14 0
	2nd	3 2 0	3 4 9	3 0 9	2 12 0	2 8 0	2 2 9	2 13 0
	3rd	4 0 0	3 13 9	3 2 0	2 10 0	2 8 0	2 5 3	3 1 0
	4th	4 6 0	4 7 9	3 0 0	2 14 0	2 6 0	2 7 0	3 4 0
	Average	3 11 0	3 12 0	3 1 0	2 12 0	2 7 0	2 4 0	3 0 0
April	1st	4 10 0	4 9 0	2 14 4	3 2 0	3 1 0	2 9 6	3 8 0
	2nd	4 9 0	4 8 0	3 7 3	3 4 3	3 1 0	2 14 9	3 10 0
	3rd	3 11 0	4 4 3	4 2 5	3 10 9	3 7 9	2 15 6	3 11 0
	4th	3 8 0	4 6 9	4 6 0	3 8 0	2 10 6	2 6 9	3 6 0
	Average	4 2 0	4 7 0	3 11 0	3 6 0	3 1 0	2 12 0	3 9 0
May	1st	3 14 0	4 10 0	4 12 0	2 12 6	2 9 3	2 5 9	3 8 0
	2nd	4 15 0	5 2 9	4 8 3	2 11 0	2 12 3	2 10 3	3 13 0
	3rd	4 6 0	5 4 0	3 10 0	3 3 0	3 5 3	3 0 0	3 13 0
	4th	4 7 0	4 0 9	3 8 0	3 7 3	2 10 3	2 11 6	3 7 0
	Average	4 6 0	4 12 0	4 1 0	3 0 0	2 13 0	2 10 0	3 10 0

APPENDIX XXIV—contd.

Weekly, monthly and annual prices of Hen Eggs in Gujarat (Bombay Presidency).

(In rupees and annas per hundred).

Month.	Week.	Pardi.	Chikhli.	Gamdavi.	Gamdavi.	Chikhli.	Gamdavi.	Average. 6 years'.
		1929.	1930.	1931.	1932.	1933.	1934.	
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
June .. .. .	1st .. ..	4 13 0	3 8 6	3 13 3	3 3 0	2 8 0	2 11 2	3 7 0
	2nd .. ..	4 9 0	4 5 11	4 0 9	2 11 0	2 8 0	3 5 6	3 9 0
	3rd .. ..	4 1 0	4 7 0	4 2 0	2 12 6	2 9 0	3 4 0	3 9 0
	4th .. ..	3 9 0	4 3 6	3 8 9	3 1 0	2 13 6	3 0 0	3 6 0
	Average ..	4 4 0	4 2 0	3 14 0	2 15 0	2 9 0	3 1 0	3 8 0
July .. .. .	1st .. ..	3 7 0	4 4 6	3 8 0	2 14 9	2 12 0	2 15 0	3 5 0
	2nd .. ..	3 12 0	4 6 6	3 8 0	2 11 9	2 10 6	2 14 8	3 5 0
	3rd .. ..	4 1 0	4 3 6	3 10 0	3 9 9	3 0 0	2 14 0	3 9 0
	4th .. ..	4 3 0	4 5 9	3 11 0	3 9 6	3 0 0	3 0 0	3 10 0
	Average ..	3 14 0	4 5 0	3 9 0	3 3 0	2 13 0	2 15 0	3 7 0

August	1st	4 5 0	4 4 9	3 12 0	3 9 6	3 4 6	3 2 0	3 12 0
	2nd	4 6 0	4 9 3	4 4 3	3 8 0	3 3 9	3 7 6	3 14 0
	3rd	4 4 0	4 6 9	4 9 3	3 8 0	3 2 0	3 10 0	3 15 0
	4th	4 2 0	4 4 6	4 4 10	3 4 0	3 3 0	3 9 0	3 13 0
	Average	4 4 0	4 6 0	4 3 0	3 7 0	3 4 0	3 7 0	3 13 0
September	1st	4 0 0	4 6 11	3 13 9	3 0 0	3 2 3	3 4 0	3 10 0
	2nd	3 14 0	4 8 3	3 10 0	2 13 9	3 0 6	2 14 4	3 8 0
	3rd	4 3 0	4 5 3	3 3 9	2 14 3	3 1 6	2 12 0	3 7 0
	4th	3 12 0	3 10 8	3 3 0	2 15 3	2 14 9	2 12 0	3 3 0
	Average	3 15 0	4 4 0	3 8 0	2 15 0	3 1 0	2 15 0	3 7 0
October	1st	3 10 0	3 12 3	3 2 3	2 14 9	2 14 0	2 12 9	3 0 0
	2nd	3 10 0	3 12 0	3 0 9	2 12 0	2 12 3	2 11 0	3 2 0
	3rd	3 11 0	3 13 7	3 1 3	2 11 4	2 12 0	2 9 0	3 2 0
	4th	3 10 0	3 12 11	3 2 3	2 15 9	2 11 6	2 9 7	3 2 0
	Average	3 10 0	3 13 0	3 0 0	2 13 0	2 12 0	2 11 0	3 2 0

APPENDIX XXIV—conold.

Weekly, monthly and annual prices of Hen Eggs in Gujarat (Bombay Presidency).

(In rupees and annas per hundred).

Month.	Week.	Pardi.	Chikhli.	Gamdavi.	Gamdavi.	Chikhli.	Gamdavi.	Average. 6 years'.
		1929.	1930.	1931.	1932.	1933.	1934.	
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
November .. .. .	1st .. .. .	3 14 0	4 3 3	3 8 6	2 13 6	2 10 0	2 14 9	3 5 0
	2nd .. .. .	4 1 0	4 2 0	3 6 0	3 1 3	2 12 0	2 15 6	3 6 0
	3rd .. .. .	4 4 0	4 4 11	3 6 6	3 2 9	2 15 3	3 0 6	3 8 0
	4th .. .. .	4 5 0	4 6 0	3 5 0	3 4 9	2 13 9	2 14 4	3 8 0
	Average .. .. .	4 2 0	4 4 0	3 6 0	3 1 0	2 13 0	2 15 0	3 7 0
December .. .. .	1st .. .. .	4 10 0	4 3 10	3 6 0	3 2 0	2 12 9	3 0 0	3 8 0
	2nd .. .. .	4 12 0	4 0 3	3 7 2	3 2 0	2 15 6	3 1 3	3 9 0
	3rd .. .. .	4 5 0	3 14 10	3 8 3	3 0 0	3 0 0	2 14 4	3 7 0
	4th .. .. .	4 8 0	3 12 0	3 3 9	3 0 0	2 13 3	2 13 3	3 6 0
	Average .. .. .	4 9 0	4 0 0	3 6 0	3 1 0	2 14 0	2 15 0	3 7 0
Annual Average .. .. .		4 0 0	4 2 0	3 8 0	3 0 0	2 13 0	2 12 0	3 6 0

APPENDIX XXV.

Types of Containers used for packing and transport of Eggs.

	Box.			Basket.			Pot.			Jar.		
	Approximate cost (without packing material).	Standard capacity (Number of eggs).	Gross Weight in seers (packed).	Approximate cost (without packing material).	Standard capacity (Number of eggs).	Gross weight in seers (packed).	Approximate cost (without packing material).	Standard capacity (Number of eggs).	Gross weight in seers (packed).	Approximate cost (without packing material).	Standard capacity (Number of eggs).	Gross weight in seers (packed).
	As.			As.			As.			Rs. As.		
North-West Frontier Province—												
(a) Peshawar, Hazara and Kohat districts.	..	..	..	3·5	400(h)*	20(a)	..	..	..	..	..	..
(b) Bannu and Dera Ismail Khan districts.	12·0	960(h)	50(b)	..	..	..	..	..	..	..	..	..
Punjab .. ..	..	..	..	3·0	400(h)	20(c)	..	..	..	..	..	..
	..	..	..	1·5	400(h)	20(d)	..	..	..	..	..	..
	..	..	..	1·5	400(h)	20(a)	..	..	..	..	..	..
Sind .. ..	..	..	..	2·0	400(h)	20(a)	..	..	..	..	..	..
Delhi .. ..	..	..	..	2·0	400(h)	20(a)	..	..	..	..	..	..
Patna .. ..	8·0	240(h)	.. (h)	2·25	400(h)	19(a)	..	..	..	..	..	..
Bombay Presidency —												
(a) Gujarat .. ..	..	..	..	..	..	..	2·0	350(h)	20(e)	..	..	..
(b) Deccan .. ..	..	..	..	3·0	650(h)(a)	..	..	..	..	..	..	..
Cochin .. ..	..	..	..	3·5	500(h)	25(a)	..	..	..	..	..	..
Travancore .. ..	..	..	..	3·5	500(h)	25(a)	..	..	..	..	..	..
Madras Presidency ..	8·0	225(d)	12(g)	3·0	450(h)	23(a)	..	..	..	1 8	3,500(h) or 2,500(d)	5 mds (f)

\*Reference—(h)—hen eggs.  
 (a) Bamboo basket.  
 (d) *Pilchi* twig basket.  
 (g) Dealwood case.

(d) duck eggs.  
 (b) Wooden box or case.  
 (e) Earthen pot held in Bamboo basket.  
 (h) Bamboo, *Ashat Jhoo* or cane baskets.

(e) Mulberry twig basket.  
 (f) Earthen jar.



APPENDIX XXV—contd.

	Box.			Basket.			Pot.			Jar.		
	Approximate cost (without packing material).	Standard capacity (Number of eggs).	Gross Weight in seers (packed).	Approximate cost (without packing material).	Standard capacity (Number of eggs).	Gross weight in seers (packed).	Approximate cost (without packing material).	Standard capacity (Number of eggs).	Gross weight in seers (packed).	Approximate cost (without packing material).	Standard capacity (Number of eggs).	Gross weight in seers (packed).
Nizam's Dominions ..	..	..	..	1.5	650(A)	30(a)	..	..	..	..	..	..
Central Provinces ..	..	..	..	..	450(A) or 225(A)	20 10	..	..	..	..	..	..
United Provinces.—												
(a) Saharanpur ..	0 10 0	700(A)	40(b)	..	..	..	..	..	..	..	..	..
(b) Muzaffarnagar, Meerut, etc.	..	..	..	2.0	550(A)	24(A)	..	..	..	..	..	..
(c) Najibabad ..	..	..	..	..	..	..	..	..	..	0 2	400(A)	20(f)
Bihar ..	..	..	..	1.5 3.0	500(A) 1,000(A)	20 40	..	..	..	..	..	..
Bengal ..	..	..	..	3.0 4.0	500(d) 800(A) or 800(d)	30 40(a)	..	..	..	1 0	2,500(A) or 2,000(d)	5 mds. (f)
Assam—												
(a) Surma Valley ..	..	..	..	2.0	700(A)	40(a)	..	..	..	..	..	..
(b) Assam Valley ..	..	..	..	1.0	400(A)	20(a)	..	..	..	..	..	..
Burma ..	0 12 0	500(d)	25 viss or 45 seers (b)	..	..	..	..	..	..	..	..	..

\*Reference—(A)—hen eggs.

- (a) Bamboo basket.  
(d) Pishi twig basket.  
(e) Dealwood case.

(d) duck eggs.

- (b) Wooden box or case.  
(c) Earthen pot held in Bamboo basket.  
(A) Bamboo, Arhar, JAcow or cane baskets.

- (c) Mulberry twig basket.  
(f) Earthen jar.

## APPENDIX XXVI.

*Preliminary trial with improved Containers.*

The trial was carried out during August 1937, at *Pabbi* in the *North-West Frontier Province* and was confined to the study of different kinds of packing materials and various sizes of boxes.

Boxes of different dimensions were used. To make them conspicuous they were painted red outside. Two wooden dummy eggs were also attached to the sides, to indicate that the boxes contained eggs (see the top plate facing page 115).

Eleven consignments packed in boxes were sent from *Pabbi* to *Karachi*, a distance of about 1,027 miles. In these consignments 4,798 eggs were transported. As a "control" a basket of the local type was despatched simultaneously, as also an improved basket of *Travancore* type. Thus 950 eggs were transported in baskets. For packing material saw-dust, wood-wool and *Sargara* grass were used. In one box, imported paste-board filler trays were used. Particulars of the trial are summarised below :—

*Summary of the trial.*

Serial No.	Number of consignments sent.	Container with inside dimensions.	Weight of empty box.	Capacity (Eggs).	Packing material.				
					Kind.	Quantity used.		Weight of packed container.	
			Sr. Ch.		Kind.	Sr. Ch.	Sr.	Ch.	
		<i>Boxes.</i>							
1	2	24" × 12" × 12"	6 15	177—725	Saw-dust	8 8	48	35	1.6
2	2	24" × 12" × 12"	6 15	360	Paste-board fillers.	0 12	25	34	<i>Nil.</i>
3	3	24" × 15" × 8"	6 4	500—525	Wood-Wool.	0 8	31	21	0.8
4	2	18" × 12" × 12"	5 10	480—500	Wood-Wool.	0 7	28	19	2.7
5	2	18" × 12" × 12"	5 10	575—600	<i>Sargara</i> grass.	0 12	32	17	1.5
6	1	18" × 10" × 10"	2 11	300—325	<i>Sargara</i> grass.	0 6	20	15	0.3
	11	Average	..	..	..	..	..	..	1.15
		<i>Baskets.</i>							
1	1	Peshawar	1 0	400	<i>Sargara</i> grass.	0 8	17	6	6.2
2	1	Travancore	2 8	500	<i>Sargara</i> grass.	1 0	23	11	1.2

It would be seen that the first five types of the boxes were rather heavy, as they were made out of silk-cotton tree wood (*Bombax Malbaricum*). This wood itself is not heavy, but the planks used were  $\frac{3}{4}$  inch thick, and there were several battens and heavy iron handles, as would be seen from the illustration facing page 115. The box No. 6 was made out of "Silver fir" (*Picea or Abies*) wood having much thinner planks and its weight was proportionately less. Provided they are dry, both the above kinds of timber are suitable for the making of egg containers, as they are odourless, light and cheap.

It would be further seen that the average percentage of breakage in boxes is about 1 per cent. against the breakage of over 6 per cent. in the *Peshawar* type of basket but only about 1.2 per cent. in the improved *Travancore* basket. It was also observed that in the matter of packing, handling, etc., and also in the extent of breakages, a smaller and lighter type of box provided greater safeguard to the eggs.

#### *Packing materials.*

Four types of packing materials were used and their prices at *Peshawar* were as under :—

(1) Wood-wool .. ..	.. ..	Rs. 5 per maund.
(2) <i>Sargara</i> grass .. ..	.. ..	14 annas per maund.
(3) Saw-dust .. ..	.. ..	5 annas per maund.
(4) Paste-board fillers .. ..	.. ..	Approximately 12 annas for a set of 12, for packing 300 eggs. These fillers are returnable, and with careful use may last for several trips.

So far as the lightness goes, wood-wool tops the list, but it does not appear to be a suitable packing material as it occupies more space, and pressing it down results in occasional breaking of eggs. For instance, in a box measuring 18 inches  $\times$  12 inches  $\times$  12 inches only about 480 eggs could be packed with wood-wool but with *Sargara* grass as many as 575 could be packed, i.e., nearly 20 per cent. more. Dry *Sargara* grass is also light and is an excellent packing material, when beaten up. It is however available only locally and grows in the hills. It resembles good quality hay, and, indeed, any crisp dry and sweet smelling grass or hay does well as a packing material. Saw-dust is found to be unsuitable, as it packs too firmly and considerable quantities of it are required, which means so much extra weight. For instance, 8½ seers of saw-dust was required for packing 700 eggs, against only 1 seer of *Sargara* grass for packing an equal number.

The packing materials were used in between the layers of eggs, and also in lining the boxes. The time taken was from 20 to 30 minutes for packing each box which included also the counting of eggs. With a little practice however this could be considerably reduced. The paste-board fillers are no doubt the best, but they are not available in India, and an attempt to get them made at the Indian paper mills proved futile.

#### *Costs.*

In the above trial the extra freight due to extra weight of boxes over the baskets was Rs. 4-13-0. On the inward journey, the weight of the 11 empty boxes was about 1 maund and 20 seers. Between *Karachi* and *Pabbi* the return freight on the empties at one-fourth full parcel rate is Rs. 2-3-0 per maund, or Rs. 3-5-0 for the 11 boxes. Hence the total difference on sending the above consignment of eggs by returnable boxes

was Rs. 8-2-0 more, than what would have been the cost if it was packed in baskets.

If, however, the eggs were despatched in the usual way by *Peshawar* type of baskets, the damage would have been at least 6 per cent. as was the case with the "control" basket that was sent. This should however be taken as an exceptionally low figure, as cases of 25 to 30 per cent. damages are quite common. Even at 6 per cent., it would mean a damage to at least 288 eggs, which valued at 6 annas per dozen would mean a loss of Rs. 9. With the use of boxes only about 60 eggs were damaged and the loss due to breakages was reduced to Rs. 1-14-0 only.

The point is, that the above trial cost Rs. 8-2-0 by way of extra weight and return freight on the empties, whereas the saving in the damage has been only Rs. 7-2-0. The cost of packing material is also not charged, but is about 8 annas in all. The cost of boxes is also extra and because the number made was small, it is rather high, at about Rs. 4 each. The trial has however indicated the ways and means for designing a lighter, smaller and cheaper type of container. It should also provide a greater scope for ventilation (see the bottom plate facing page 115). Trials with this revised type of box are to be undertaken shortly.

The cost of this improved container could now be reduced to about Rs. 1-8-0 for holding 350 to 400 eggs, and if it makes 10 trips, including the return freight, its cost per trip would be about 3 annas which is equal to the cost of the basket. It should, however, be pointed out that a box is always likely to be heavier than the baskets as used at present, but even if it could reduce the damage by 5 per cent., it would pay the merchants to use it instead.

If for any reason the use of boxes turns out to be more expensive or at places they cannot be used on a large scale, the adoption of the *Travancore* type of basket and its proper packing as described at page 107, should be seriously considered. The experiment with the above type of basket has indicated that it can also reduce the breakages to about one per cent.

## APPENDIX XXVII.

*Important assembling centres for Eggs.*

NOTE.—The numbers indicated for each centre are only approximate and show the minimum and maximum numbers that are collected there, according to different seasons.

Serial No.	Name of the assembling centre.	Approximate number of eggs assembled daily.
<i>North-West Frontier Province.</i>		
1	Havelian .. .. .	3,000—5,000
2	Jahangira Road .. .. .	3,000—5,000
3	Mardan .. .. .	5,000—10,000
4	Peshawar .. .. .	5,000—10,000
5	Taru Jabha .. .. .	3,000
<i>Punjab.</i>		
6	Gujarat .. .. .	3,000—5,000
7	Jullundur .. .. .	5,000—10,000
8	Kurali .. .. .	3,000—5,000 (G)
9	Lawrencepur .. .. .	3,000—5,000
10	Mankiala .. .. .	3,000—5,000
11	Multan .. .. .	3,000—5,000
12	Nakodar .. .. .	3,000—5,000
13	Rupar .. .. .	3,000—5,000
14	Shah-Kote-Malsian .. .. .	5,000—10,000
<i>Patiala.</i>		
15	Bassi-Pathanan .. .. .	3,000—5,000 (G)
16	Patiala .. .. .	3,000
17	Rajpura .. .. .	3,000
<i>Sind.</i>		
18	Hyderabad .. .. .	3,000—5,000
19	Karachi .. .. .	3,000—5,000
20	Larkana .. .. .	3,000
21	Sukkur .. .. .	3,000

(G) Guinea-fowl eggs are also available at these places.

## APPENDIX XXVII—contd.

Serial No.	Name of the assembling centre.	Approximate number of eggs assembled daily.
<i>Baroda State.</i>		
22	Anawal .. .. .	3,000—5,000
23	Billimora .. .. .	10,000—25,000
24	Rankuwa .. .. .	5,000—10,000
<i>Bombay Presidency.</i>		
25	Belgaum .. .. .	3,000—5,000
26	Bijapur .. .. .	3,000
27	Bulsar .. .. .	3,000—5,000
28	Chickli .. .. .	3,000—5,000
29	Dhalgaon .. .. .	5,000—10,000
30	Dungrī .. .. .	3,000—5,000
31	Hubli .. .. .	3,000—5,000
32	Igatpuri .. .. .	3,000
33	Jarla .. .. .	3,000—5,000
34	Kolhapur .. .. .	5,000—10,000
35	Manmad .. .. .	3,000
36	Navasari .. .. .	5,000—10,000
37	Pardi .. .. .	5,000—10,000
38	Sangola .. .. .	5,000—10,000
39	Vadala .. .. .	3,000—5,000
<i>Mysore.</i>		
40	Chintamani .. .. .	5,000—10,000
41	Kolar .. .. .	3,000—5,000
<i>Cochin.</i>		
42	Ernakulam .. .. .	25,000—50,000*
43	Trichur .. .. .	5,000—10,000*

\*Duck eggs are also available at these places.

APPENDIX XXVII—*contd.*

Serial No.	Name of the assembling centre.	Approximate number of eggs assembled daily.
<i>Travancore.</i>		
44	Aralmoodu .. .. .	10,000—25,000*
45	Chengannur .. .. .	10,000—25,000*
46	Chenganacherry .. .. .	10,000—25,000*
47	Edathuva .. .. .	10,000—25,000*
48	Kalerkavilla .. .. .	10,000—25,000*
49	Kayencolam .. .. .	3,000—5,000*
50	Karuugol .. .. .	10,000—25,000*
51	Kottarakkara .. .. .	5,000—10,000*
52	Kottayam .. .. .	10,000—25,000*
53	Martandam .. .. .	3,000—5,000*
54	Mavelikara .. .. .	10,000—25,000*
55	Paracode .. .. .	10,000—25,000*
56	Quilon .. .. .	10,000—25,000*
57	Sasthamakotta .. .. .	10,000—25,000*
58	Thoduvetty .. .. .	10,000—25,000*
59	Trivandrum .. .. .	3,000—5,000*
<i>Madras Presidency.</i>		
60	Bezwada .. .. .	10,000—25,000*
61	Calicut .. .. .	10,000—25,000*
62	Coimbatore .. .. .	5,000—10,000
63	Coconada .. .. .	10,000—25,000*
64	Madura .. .. .	5,000—10,000*

\*Duck eggs are also available at these places.

## APPENDIX XXVII—contd.

Serial No.	Name of the assembling centre.	Approximate number of eggs assembled daily.
<i>Madras Presidency—contd.</i>		
65	Masulipatam .. .. .	10,000—25,000*
66	Ongole .. .. .	10,000—25,000
67	Palghat .. .. .	10,000—25,000*
68	Polachi .. .. .	10,000—25,000*
69	Salem .. .. .	3,000—5,000
70	Tanur .. .. .	10,000—25,000*
71	Tenali .. .. .	10,000—25,000*
72	Tirur .. .. .	10,000—25,000*
73	Trichinopoly .. .. .	5,000—10,000*
74	Tuticorin .. .. .	10,000—25,000
75	Vellore .. .. .	3,000—5,000
76	Vizagapatam .. .. .	5,000—10,000*
<i>Nizam's Dominions.</i>		
77	Gulbarga .. .. .	3,000—5,000
<i>Central Provinces.</i>		
78	Gondia .. .. .	3,000
79	Khandwa .. .. .	3,000
<i>Bihar and Orissa.</i>		
80	Chakraharpur .. .. .	3,000—5,000
81	Cuttak .. .. .	3,000—5,000
82	Dharbangha .. .. .	3,000
83	Dinapore .. .. .	3,000—5,000
84	Gaya .. .. .	3,000

\*Duck eggs are also available at these places.



## APPENDIX XXVII—contd.

Serial No.	Name of the assembling centre.	Approximate number of eggs assembled daily.
<i>Bihar and Orissa—contd.</i>		
85	Ghataila .. .. .	3,000
86	Jhajha .. .. .	3,000
87	Jamalpur .. .. .	3,000
88	Jamshedpur .. .. .	3,000—5,000
89	Khurda Road .. .. .	3,000—5,000
90	Muzaffarpur .. .. .	3,000—5,000
91	Patna .. .. .	3,000—5,000
92	Puri .. .. .	3,000
93	Purulia .. .. .	3,000
94	Ranchi .. .. .	3,000—5,000
95	Sini .. .. .	3,000
<i>United Provinces.</i>		
96	Amroha .. .. .	3,000—5,000
97	Bareilly .. .. .	3,000—5,000
98	Bulandshahr .. .. .	5,000—10,000 (G)
99	Gorakhpur .. .. .	5,000—10,000
100	Gajraula .. .. .	3,000—5,000
101	Gulaothi .. .. .	3,000—5,000
102	Jhansi .. .. .	5,000—10,000
103	Kakori .. .. .	3,000—5,000
104	Malihabad .. .. .	3,000—5,000
105	Muzaffarnagar .. .. .	5,000—10,000
106	Rampur .. .. .	3,000—5,000
107	Raudauli .. .. .	3,000—5,000

(G) Guinea-fowl eggs are also available at these places.

## APPENDIX XXVII—contd.

Serial No.	Name of the assembling centre.	Approximate number of eggs assembled daily.
<i>United Provinces—contd.</i>		
108	Saharanpur .. .. .	5,000—10,000 (G)
109	Sambhal Hatim Sarai .. .	3,000—5,000
110	Shahabad .. .. .	3,000—5,000
111	Sitapur .. .. .	3,000—5,000
112	Thana-Bhawan .. .. .	5,000—10,000
<i>Bengal.</i>		
113	Brahamanbari .. .. .	10,000—25,000*
114	Chandpur .. .. .	5,000—10,000*
115	Chittagong .. .. .	25,000—50,000*
116	Daulatganj .. .. .	50,000—80,000*
117	Dhulia Ganges .. .. .	10,000—25,000*
118	Feni .. .. .	10,000—25,000*
119	Gaibanda .. .. .	5,000—10,000*
120	Gauripur .. .. .	10,000—25,000*
121	Munshiganj .. .. .	5,000—10,000*
122	Murshidabad .. .. .	10,000—25,000*
123	Narayanganj .. .. .	25,000—30,000*
124	Nawabganj .. .. .	10,000—25,000*
125	Rohanpur .. .. .	10,000—25,000*
126	Sajinipara .. .. .	10,000—25,000*
127	Samsi .. .. .	5,000—10,000*
128	Serajganj .. .. .	10,000—25,000*

(G) Guinea-fowl eggs are also available at these places.

\*Duck eggs are also available at these places.

## APPENDIX XXVII—contd.

Serial No.	Name of the assembling centre.	Approximate number of eggs assembled daily.
<i>Assam.</i>		
129	Gauhati .. .. .	3,000—5,000
130	Habiganj .. .. .	5,000—10,000*
131	Itakhola .. .. .	5,000—10,000
132	Noajan .. .. .	3,000—5,000
133	Rangia .. .. .	3,000—5,000
134	Shillong .. .. .	3,000—5,000
135	Tinsukia .. .. .	10,000—25,000
<i>Burma.</i>		
136	Bassein .. .. .	3,000—5,000*
137	Bauktaw .. .. .	3,000—5,000*
138	Hmawbi .. .. .	5,000—10,000*
139	Kamayut .. .. .	3,000—5,000*
140	Kayan .. .. .	25,000—50,000*
141	Mandalay .. .. .	3,000—5,000
142	Moulmein .. .. .	5,000—10,000*
143	Pegu .. .. .	5,000—10,000*
144	Pyapon .. .. .	5,000—10,000*
145	Pyinmana .. .. .	3,000—5,000
146	Tamwe .. .. .	3,000—5,000*
147	Yindaw .. .. .	5,000—10,000

\*Duck eggs are also available at these places.

## APPENDIX XXVIII.

*Form of License (by auction), for collection of Eggs for export from Bansda State (Bombay Presidency).*

- (1) The permit is given from \_\_\_\_\_ to  
(Indian year \_\_\_\_\_ till the end of the month of *Ashwin*).\*
- (2) The licensee must keep a shop for the sale of eggs in *Bansda* town.
- (3) The licensee shall hold the right of purchasing eggs from all the villages and *Hatwada* except *Dabalgalia*. Offers should, therefore, be made for both the areas.
- (4) The highest bidder at the auction would be required to deposit one-tenth of his bid. If he fails to accept his bid on approval of the State, the right of purchase of eggs would be re-auctioned. If the bid received at re-auction is less than the original, the deficit shall have to be met by the first bidder. In case higher offer is received, the first bidder would have no right over the excess.
- (5) Apart from the bid agreed upon, the licensee has not to pay any other charge to the State.
- (6) The licensee must purchase all eggs brought for sale by producers, but the purchase of stale eggs depends on the option of the former. The producers can export stale eggs directly with a written consent of the licensee.
- (7) The licensee presents a permit book, which would be duly attested by Revenue Office, in order to have exemption of tax from the *Hatwada* Octroi.
- (8) The licenser shall purchase all eggs, and would keep adequate establishment for the purpose, to avoid complaints from the producers that there is no buyer of eggs.
- (9) The minimum purchase price to be paid to producers is fixed for a dozen of twelve eggs, which licensee must pay. If the market prices of eggs fluctuate widely outside the State limits, the purchase price of eggs from the producers would be adjusted accordingly by the Revenue Department of the State and the licensee shall have to abide by it. On no account the licensee can pay less to the producers than the prescribed charge by the State. There should be no complaints from the producers in the above connection.
- (10) If for any reason the licensee desires to appoint a sub-licensee or transfer of license to some one else, he would be required to apply to the State in writing. If the request is approved, a transfer fee of Rs. 5 (five only) would be charged.
- (11) The licensee shall have to pay as deposit Rs. 150 as acceptance of his bid by the State, which sum shall be refunded to him on the expiry of the license.

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\*The Indian month of *Ashwin* corresponds generally with the English months of September-October.

## APPENDIX XXIX.

*Markets and Market Charges.*

	Name of Market.	Ownership.	Charges.	
			Type of Charge.	Amount.
North-West Frontier Province.	Abbottabad ..	Municipal Committee.	Octroi ..	4 annas per 100 eggs.
Do. ..	Haripur ..	Do. ..	Do. ..	3 pies per 2 dozen eggs.
Do. ..	Peshawar ..	Do. ..	Do. ..	6 pies per rupee worth of eggs.
Do. ..	Kohat ..	Do. ..	Nil ..	Nil.
Do. ..	Bannu and Mardan	Do. ..	Nil ..	Nil.
Do. ..	Dera Ismail Khan	Do. ..	Octroi ..	3 pies per dozen eggs.
Punjab ..	Egg and Poultry Section, Tollinton Market, Lahore.	Do. ..	Stall rent ..	Rs. 5 per month.
Delhi ..	Gol Market, New Delhi.	New Delhi Municipal Committee.	Shop rent ..	Rs 12 per month.
Sind ..	14 Karachi Markets	Municipality	Stall rent ..	Rs. 3 to Rs. 10 per month, according to size and position.
Bombay ..	Crawford Market, Bombay.	Municipality ..	Stall rent. ..	Rs. 10 to Rs. 30 per month.
Do. ..	Grant Road, Bombay.	Do. ..	Do. ..	Do.
Do. ..	Nal Bazar, Bombay	Do. ..	Do. ..	Do.
Do. ..	Kolaba ..	Do. ..	Do. ..	Do.
Do. ..	Chira Bazar ..	Do. ..	Do. ..	Do.
Madras Presidency	Municipal Markets	Municipality ..	Market rent ..	Rs. 2-4 to Rs. 3 per month.
Nizam's Dominions	Chak Market, Hyderabad	..	Market fee ..	4 pies per rupee worth of eggs.
Do. ..	Sectnderabad General Market.	..	License fee ..	Re. 1 per year per retailer.
Central Provinces	Jubbulpore Cantonment Egg and Poultry Market.	Cantonment Authorities.	Rent License fee	Re. 1 per Stall per month, 4 annas per Stallholder.

## APPENDIX XXIX—contd.

	Name of Market.	Ownership.	Charges.	
			Type of Charge.	Amount.
United Provinces	Agra ..	Municipal Board	Market Charges	6 pies daily.
Do. ..	Cawnpore ..	Do. ..	Do. ..	6 pies daily.
Do. ..	Lucknow ..	Do. ..	Rent ..	Rs. 20 per month.
Do. ..	Do. ..	Do. ..	Do. ..	Rs. 6 per month.
Do. ..	Do. ..	Do. ..	Do. ..	Rs. 4-8 per month.
Do. ..	Do. ..	Do. ..	Do. ..	Rs. 5 per month.
Do. ..	Allahabad ..	Do. ..	Do. ..	Rs. 1-8-0 to Rs. 3 per month.
Do. ..	Bareilly ..	Do. ..	Do. ..	Rs. 5 to Rs. 10 per month.
Do. ..	Meerut Cantonment.	Cantonment Board.	Do. ..	Rs. 18 per month.
Do. ..	Dehra Dun ..	Private ..	Do. ..	Rs. 10 to Rs. 15 per month.
Do. ..	Mussoorie ..	Do. ..	Do. ..	Rs. 60 to Rs. 100 Seasonal.
Do. ..	Naini Tal ..	Do. ..	Do. ..	Rs. 120 to Rs. 180 for the season.
Do. ..	Do. ..	Municipal Board	Do. ..	Rs. 150 to Rs. 200 for the season.
Bihar ..	Jamshedpur ..	Tata Steel Company.	Do. ..	Rs. 15 per month per stall.
Do. ..	Patna ..	Municipality ..	Do. ..	Rs. 20 per month per seller.
Bengal ..	Baitank Khana, Calcutta.	Private ..	Do. ..	Rs. 8 per month (minimum).
Do. ..	New Market, Calcutta.	Municipality ..	Rent ..	From 15 annas per day.
Do. ..	Dacca, Narayanganj, Chittagong and Sirajganj.	Private ..	Do. ..	Rs. 4 to Rs. 8 per month per stall.
Assam ..	Shillong ..	Khasi Siems ..	Do. ..	Rs. 1 per month for each compartment.

## APPENDIX XXX.

Approximate annual inter-provincial and inter-State movement of Eggs (by rail, road and water) including export through ships stores.  
(In lakh).

To-ward Province.	Imported into										Imported into									Supplies to ships.	Others.	Burma.	Total.						
	Punjab.	Patiala State.	Delhi.	Rajputana.	Central India States.	Sind.	Western India States.	Baroda.	Bombay.	Mysore.	Coorg.	Cochin.	Travan- core.	Madras Presidency.	Nizam's Dominions.	Central Provinces.	United Provinces.	Bihar.	Bengal.					Assam.					
..	4.8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4.8	1			
..	34.44	0.06	9.69	..	4.28	36.93	..	12.44	..	..	..	..	..	..	..	..	0.12	..	..	..	..	..	..	0.14 (Quetta).	98.1	2			
13.6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	13.8	3			
0.05	..	1.19	7.23	0.18	..	14.98	..	8.27	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3.37 (Quetta).	44.38	4			
..	8.75	..	2.1	..	..	..	..	0.27	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	11.12	5			
..	..	..	2.43	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2.43	6			
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1.09 (Dining Cars).	1.09	7		
..	..	..	..	..	..	..	..	8.89	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2.4	2.4	8		
..	..	..	..	..	0.16	..	2.7	23.89	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8.89	9			
..	..	..	..	1.78	4.84	..	13.71	1.5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	31.75	10			
..	..	..	..	..	..	..	..	39.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	24.83	11		
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	39.05	12		
..	..	..	..	..	..	..	..	12.0	13.58	..	..	..	..	0.43	..	..	..	..	..	..	..	..	..	..	..	1.81	13		
..	..	..	..	..	..	..	..	2.8	..	..	..	..	43.04	0.3	..	..	..	..	..	..	..	..	..	..	..	76.92	14		
..	..	..	..	..	..	..	..	11.02	23.5	0.67	0.43	0.12	122.7	..	..	..	..	..	..	..	..	..	..	..	..	143.62	15		
..	..	..	..	..	..	..	..	1.78	..	..	..	..	..	4.75	..	..	..	..	..	..	..	..	..	..	5	19.21 (Ceylon).	10.03	74.73	16
..	..	..	..	..	0.84	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1.76	17		
..	4.58	..	17.22	0.14	..	..	..	2.86	..	..	..	..	..	..	..	..	0.28	..	..	..	..	..	..	..	..	1.12	18		
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.41	..	..	..	..	..	..	34.83	19		
..	..	..	0.29	..	..	..	..	16.89	..	..	..	..	..	..	..	..	..	..	0.76	..	..	..	..	..	1	1.76	20		
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.4	1.98	22.03	..	9.28	23.82	1	220.23	295.64	21
..	..	..	..	..	..	..	..	0.01 (From Durban South Africa).	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	12.8	12.8	22
..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.05 (From Central India States).	..	..	..	2.42 (From Sikkim).	..	..	..	..	..	2.98	2.98	23	
13.35	52.67	1.25	39.01	2.1	10.12	51.91	16.41	1.5	145.85	37.98	2	13.55	0.12	165.74	5.53	10.07	11.4	22.93	16.39	9.28	43.22	24.81	230.81	1	932.51			24	

APPENDIX XXXI.

Market Quality of Desi Hen Eggs.

Place where examined.	Approximate age of eggs when examined (days).	Minimum weight and percentage to total examined.				Calculated weight per hundred eggs. lb. oz.	Appearance.		Colour of shell.		Interior quality.		
		1½ oz. (Per cent.)	1¼ oz. (Per cent.)	1¼ oz. (Per cent.)	Below 1¼ oz. (Per cent.)		Clean. (Per cent.)	Dirty. (Per cent.)	White. (Per cent.)	Other tints (Per cent.)	Fresh. (Per cent.)	Cooking. (Per cent.)	Stale. (Per cent.)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Srinagar .. .. .	12	5	32	56	7	8-6	48	52	50	50	59	32	9
2. Peshawar .. .. .	5	18	52	27	3	9-7	70	30	35	65	72	25	3
3. Lahore .. .. .	10	20	50	25	5	9-2	80	20	30	70	70	28	2
4. Patiala .. .. .	5	12	27	50	11	8-8	31	69	42	58	72	24	4
5. Delhi .. .. .	8	3	46	50	1	8-10	12	88	35	65	37	58	5
6. Karachi .. .. .	10	10	15	35	40	7-13	85	15	40	60	55	40	5
7. Hyderabad (Sind) .. .. .	11	10	10	50	30	7-14	80	20	30	70	60	32	8
8. Baroda .. .. .	3	5	70	20	5	9-0	80	20	85	15	70	28	2
9. Bombay .. .. .	12	5	45	15	25	8-3	60	40	50	50	69	26	5
10. Baroli .. .. .	4	2	30	46	22	8-1	44	56	76	24	66	27	8
11. Bijapore .. .. .	10	3	43	31	23	8-4	27	73	11	89	12	74	14
12. Belgaum .. .. .	5	3	32	45	20	8-1	28	72	20	80	80	19	1
13. Bangalore .. .. .	8	8	55	25	12	8-12	90	10	60	40	65	30	5
14. Ernakulam .. .. .	5	4	32	54	10	8-5	72	28	38	62	64	30	6
15. Kottarakara .. .. .	7	15	41	24	20	8-10	10	90	20	80	67	30	3



APPENDIX XXXI—contd.

Market Quality of Desi Hen Eggs—contd.

Place where examined.	Approximate age of eggs when examined (days).	Minimum weight and percentage to total examined.				Calculated weight per hundred eggs.	Appearance.		Colour of shell.		Interior quality.		
		1½ oz. (Per cent.)	1¼ oz. (Per cent.)	1½ oz. (Per cent.)	Below 1½ oz. (Per cent.)		Clean. (Per cent.)	Dirty. (Per cent.)	White. (Per cent.)	Other tints. (Per cent.)	Fresh. (Per cent.)	Cooking. (Per cent.)	Stale. (Per cent.)
1	2	3	4	5	6	7	8	9	10	11	12	13	14
16. Madras .. .. .	12	6	17	44	33	7-13	21	79	36	64	73	25	2
17. Hyderabad (Deccan) .. .. .	7	10	26	50	14	8-6	35	15	95	5	70	28	2
18. Nagpur .. .. .	5	3	12	58	27	7-11	43	57	22	68	76	23	2
19. Agra .. .. .	4	10	41	38	11	8-11	45	55	90	10	53	41	7
20. Lucknow .. .. .	4	27	15	47	11	8-12	52	48	86	14	57	41	2
21. Jhansi .. .. .	3	3	30	45	22	8-0	49	51	91	9	43	52	6
22. Bareilly .. .. .	3	19	44	35	13	8-14	56	44	92	7	56	43	2
23. Patna .. .. .	9	3	6	70	21	7-11	61	19	44	56	80	16	4
24. Dinapore .. .. .	8	5	4	60	31	7-9	68	23	35	63	76	20	6
25. Calcutta .. .. .	10	6	20	49	25	7-15	90	10	10	90	85	10	5
26. Lakman .. .. .	4	8	30	42	20	8-4	84	16	12	88	90	7	3
27. Shillong .. .. .	4	5	59	16	20	8-10	23	72	24	76	74	24	2
Average .. .. .	7	8	33	41	18	8-5	56	44	47	53	65	30	5
Burma .. .. .	5	23	52	15	10	8-3	62	8	79	20	64	24	

APPENDIX XXXII.  
Market Quality of Duck Eggs.

Place where examined.	Approximate age of eggs when examined (days).	Minimum weight and percentage to total examined.				Calculated weight per hundred eggs. lb. oz.	Appearance.		Interior quality.		
		2½ oz. (Per cent.)	2 oz. (Per cent.)	2 oz. (Per cent.)	1½ oz. (Per cent.)		Clean. (Per cent.)	Dirty. (Per cent.)	Fresh. (Per cent.)	Cooking. (Per cent.)	Stale. (Per cent.)
1	2	3	4	5	6	7	8	9	10	11	12
1. Delhi .. ..	6	10	36	38	16	13—2	..	100	46	81	3
2. Bangalore .. ..	7	20	45	25	10	13—11	50	50	60	35	5
3. Trichur .. ..	3	59	35	1	5	14—14	23	77	83	12	5
4. Ernakulam .. ..	4	79	14	2	5	15—3	20	80	78	16	6
5. Trivandrum .. ..	6	39	51	5	5	14—8	2	98	60	38	2
6. Madras .. ..	6	66	18	10	6	14—13	10	90	80	16	5
7. Nagpore .. ..	5	30	59	8	3	14—5	13	87	89	9	2
8. Patna .. ..	10	6	9	70	15	12—9	42	58	82	13	5
9. Dinapore .. ..	8	6	11	71	12	12—11	35	65	79	18	3
10. Calcutta .. ..	8	5	8	32	55	11—15	65	15	90	5	5
11. Shillong .. ..	8	5	34	41	20	12—15	35	65	37	60	3
Average .. ..	6	30	29	27	14	13—11	29	71	71	25	4
Burma .. ..	6	19	64	12	5	14—0	64	36	67	30	3

## APPENDIX XXXIII.

*Agricultural Produce (Grading and Marking) (Eggs) Rules.*

1. *Short title and application.*—(1) These rules may be called the Agricultural Produce (Grading and Marking) (Eggs) Rules, 1937.

(2) They shall apply to hens' and ducks' eggs produced in India.

2. *Grade designations.*—Grade designations to indicate the quality of eggs are set out in column 1 of Schedule I.

3. *Definition of quality.*—The quality indicated by such grade designations is set out, against such designations, in columns 2 and 3 of Schedule I in respect of hens' eggs and in columns 4 and 5 thereof in respect of ducks' eggs.

4. *Grade designation marks.*—(1) The grade designation mark to be marked on each egg shall consist of the word AGMARK together with the grade designation, placed centrally in a circle of not less than  $\frac{1}{4}$  inch diameter.

(2) The grade designation mark to be attached to each package of eggs shall consist of a label bearing the design set out in Schedule II, specifying the grade designation and of the following colour :—

Grade designation.	Colour of label.
Special .. .. .	White.
A .. .. .	Red.
B .. .. .	Blue.
C .. .. .	Yellow.

NOTE.—Where a package contains eggs of two or more grades, separate labels of appropriate colour shall be attached giving the particulars in respect of the eggs of each grade in the package.

5. *Methods of marking.*—(1) The grade designation mark shall be marked legibly on each egg in indelible ink on the shell by means of a rubber stamp.

(2) The grade designation mark label shall be attached by means of a lead seal bearing the word "AGMARK" to each package of eggs, and shall clearly show the following particulars :—

- (a) Grade designation of the eggs ;
- (b) Number of eggs ;
- (c) Nett weight of eggs ;
- (d) Name of the grading station ;
- (e) Date of despatch.

6. *Methods of packing.*—(1) Containers may be either returnable or non-returnable. They shall be clean and suitable for the purpose. All packages shall have a closed sealed cover.

(2) Packing material, if used, shall be clean, dry and sweet, free of any taint liable to impart an objectionable flavour to the eggs.

(3) Hen and duck eggs shall be packed separately. Eggs of different grades shall also be packed separately, as far as possible. If of more than one grade are packed in one container, a layer of clean paper or clean straw shall be placed between the different grades.

## SCHEDULE I.

*Grade designations and definition of quality of eggs (hen and duck) produced in India.*

Grade designations.	Definition of quality.			
	Hen eggs.		Duck eggs.	
	Minimum weight.*	State or condition.	Minimum weight.*	State or condition.
1	2	3	4	5
	Ozs.		Ozs.	
Special	1 $\frac{7}{8}$	The eggs must not have been preserved by any process and must be free from taint; the shell must be clean, free from stain, sound, of normal texture and shape. The contents must be free from blemish, the yolk central and translucent or faintly but not clearly outlined and freely mobile; the white must be translucent and clear, and the air space must not exceed three-eighths of an inch in depth.	2 $\frac{1}{8}$	The eggs must not have been preserved by any process, the shell must be clean, free from stain and sound, the yolk central, visible but not dense, and freely mobile. The white must be translucent, firm and not watery.
A	1 $\frac{3}{4}$		2 $\frac{1}{4}$	
B	1 $\frac{1}{4}$		2	
C	1 $\frac{1}{8}$		1 $\frac{1}{2}$	

\* To allow for accidental errors in grading a tolerance of 1 drachm in the weight of any egg may be permitted.

SCHEDULE II

Grade designation mark for packages of eggs.



APPENDIX XXXIV.

Results of Grading of "Agmark" Eggs at Peshawar.

Months (1937).	Total eggs brought for grading.	Cracked.		Stale.		A—Grade.		B—Grade.		C—Grade.		Small.	
		Number.	Per- centage to column (2).	Number.	Per- centage to column (2).	Number.	Per- centage to column (2).	Number.	Per- centage to column (2).	Number.	Per- centage to column (2).	Number.	Per- centage to column (2).
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
January ..	2,52,872	4,479	1.8	600	0.2	71,544	28.3	1,25,540	49.6	48,490	19.2	2,219	0.9
February ..	1,97,299	1,490	0.8	477	0.2	43,282	21.9	1,08,084	54.8	42,384	21.5	1,618	0.8
March ..	1,49,267	1,001	0.7	2,007	1.3	35,159	23.6	82,255	55.1	27,319	18.3	1,526	1.0
April ..	4,07,128	2,302	0.6	8,771	2.2	97,447	23.9	2,00,625	49.3	92,500	22.7	5,483	1.3
May ..	5,86,339	3,037	0.6	17,593	3.0	1,34,063	22.8	2,74,517	46.8	1,46,480	25.0	10,649	1.8
June ..	2,43,184	1,303	0.6	5,437	2.2	54,071	22.2	1,21,654	50.0	59,542	24.1	2,177	0.9
July ..	84,188	454	0.5	1,438	1.7	22,908	27.3	41,801	49.7	16,822	20.0	675	0.8
August ..	74,267	711	0.9	1,328	1.8	20,169	27.2	35,348	47.6	16,106	21.7	607	0.8
September..	85,384	519	0.6	1,753	2.0	21,921	25.7	38,041	44.6	22,170	26.0	980	1.1
October ..	1,63,544	372	0.2	3,368	2.1	43,813	26.8	77,578	47.4	36,099	22.1	2,314	1.4
November..	2,76,448	347	0.1	2,572	0.9	82,005	29.6	1,40,278	50.8	48,543	17.6	2,703	1.0
December ..	2,16,095	188	0.1	1,281	0.6	74,852	34.7	1,08,053	50.0	31,430	14.5	291	0.1
Total ..	27,36,015	16,203	0.6	46,623	1.7	7,01,324	25.6	13,53,774	49.5	5,86,649	21.5	31,242	1.1

APPENDIX XXXV.

Results of Grading of "Agmark" Eggs at Travancore.

Months.	Total eggs brought for grading.	Cracked.		Stale.		A—Grade.		B—Grade.		C—Grade.		Smalls.	
		Number.	Percentage to column (2).	Number.	Percentage to Column (2).	Number.	Percentage to column (2).	Number.	Percentage to column (2).	Number.	Percentage to column (2).	Number.	Percentage to column (2).
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1937.													
February ..	103,305	1,823	1.8	3,479	3.4	8,591	8.3	54,926	53.2	33,094	32.0	1,392	1.3
March ..	68,270	1,017	1.5	3,185	4.6	3,491	5.1	32,440	47.5	26,120	38.3	2,017	3.0
April ..	47,050	613	1.3	2,771	5.9	3,491	7.4	23,448	49.8	15,190	32.3	1,587	3.3
May ..	41,220	1,094	2.7	1,393	3.4	3,822	9.3	20,587	49.9	12,782	31.0	1,542	3.7
June ..	159,313	2,444	1.5	2,312	1.4	16,817	10.6	72,759	45.7	56,810	35.7	8,170	5.1
July ..	227,650	3,495	1.5	1,973	0.9	36,125	15.9	92,225	40.5	80,950	35.5	12,982	5.7
August ..	182,700	2,986	1.6	3,039	1.7	32,514	17.8	72,125	39.5	59,775	32.7	12,261	6.7
September..	217,400	4,992	2.3	7,965	3.7	36,945	17.0	77,821	35.8	70,079	32.2	19,698	9.0
October ..	150,800	2,872	1.9	5,066	3.3	22,242	14.8	56,922	37.8	40,294	26.4	12,202	8.1
November..	140,600	2,328	1.6	6,829	4.9	22,120	15.7	46,492	33.1	49,510	35.2	12,210	8.6
December ..	182,900	2,858	1.5	7,445	4.0	33,878	18.4	62,781	34.1	60,224	32.8	16,604	9.1
1938.													
January (up to 15th only)	53,300	752	1.4	2,786	5.2	12,966	24.3	17,250	32.6	15,082	28.2	4,264	8.0
Total ..	1,575,208	27,274	1.7	48,244	3.1	222,012	14.1	629,878	40.0	520,020	33.0	106,879	6.8

## APPENDIX XXXVI.

*Conditions for the Certificate of Authorisation under the Agricultural Produce (Grading and Marking) Act, 1937.*

- (a) Grade designation marks shall only be applied to the articles mentioned in the certificate of authorisation and at the premises therein mentioned ;
- (b) During the operation of the certificate the holder thereof shall, at all reasonable times, give access to the premises named therein to any person duly authorised by the Agricultural Marketing Adviser or by the Central Government and shall afford him facilities for ascertaining that marking is being correctly performed ;
- (c) The holder of the certificate will keep a record of the number of packages marked with each grade designation mark and will permit any person duly authorised by the Agricultural Marketing Adviser or by the Central Government to examine the record ;
- (d) The holder of the certificate will permit any duly authorised person to take samples of any graded produce or to open and inspect any package bearing a grade designation mark, provided that all samples shall be paid for ;
- (e) Any person authorised in this behalf by the Agricultural Marketing Adviser or by the Central Government may cancel or remove a grade designation mark from any produce which is the property of the holder of the certificate or of his agent, should such produce be found by such person not to comply with the definition of quality prescribed for that article ;
- (f) All rules made under the Agricultural Produce (Grading and Marking) Act shall be observed ;
- (g) Any certificate of authorisation may be cancelled, revoked, modified or suspended by the Agricultural Marketing Adviser or by any other person authorised by the Central Government in that behalf, provided that 14 days' notice in writing shall be given to the certificate holder at the address stated on the certificate and an opportunity given him for showing cause why his certificate should not be cancelled, revoked, modified or suspended ;
- (h) Any holder of a certificate of authorisation may, with the written consent of the Agricultural Marketing Adviser, use a replica of the AGMARK design on his business papers and catalogues ; and
- (i) Any stencil, rubber stamp, punch or other instrument or label required for marking produce in the prescribed manner shall only be obtained from the Agricultural Marketing Adviser or a person authorised by him, shall be kept in safe custody by the holder of the certificate and shall, so far as may be, be returned to the Agricultural Marketing Adviser or such authorised person when the certificate ceases to be valid.



APPENDIX XXXVII.

Weekly retail prices of "AGMARK" and ungraded eggs, ex-merchants' shop, Calcutta.

[In rupees, annas and pies.]

Week ending on	Graded.						Ungraded.			Price Difference.	
	Prices per score.				Weighted average Price.*		Prices per score.			per score.	per hundred.
	A	B	C	Small.	per score.	per hundred.	Minimum.	Maximum.	Average.		
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
4th December 1937 .. ..	0 12 0	0 10 0	0 8 0	0 6 0	0 7 11	2 7 9	..	Not given	..	..	..
11th December 1937 .. ..	0 12 0	0 10 0	0 8 0	0 6 0	0 7 11	2 7 9	..	Not given	..	..	..
18th December 1937 .. ..	0 12 0	0 10 0	0 8 0	0 6 0	0 7 11	2 7 9	0 7 0	0 7 6	0 7 3	+0 0 8	+0 3 4
25th December 1937 .. ..	0 12 0	0 9 0	0 8 0	0 6 0	0 7 8	2 6 3	0 7 0	0 8 0	0 7 6	+0 0 2	+0 0 10
1st January 1938 .. ..	0 12 0	0 9 0	0 8 0	Not given	..	..	0 7 0	0 8 0	0 7 6	..	..
9th January 1938 .. ..	0 12 0	0 9 0	0 8 0	0 6 0	0 7 8	2 6 3	0 7 0	0 8 0	0 7 6	+0 0 2	+0 0 10
16th January 1938 .. ..	0 12 0	0 9 0	0 8 0	0 6 0	0 7 8	2 6 3	0 7 0	0 8 0	0 7 6	+0 0 2	+0 0 10
22nd January 1938 .. ..	0 12 0	0 9 0	0 8 0	0 6 0	0 7 8	2 6 3	0 7 0	0 8 0	0 7 6	+0 0 2	+0 0 10
29th January 1938 .. ..	0 12 0	0 8 0	0 7 0	0 5 0	0 6 8	2 1 5	0 6 0	0 7 0	0 6 6	+0 0 2	+0 0 10
5th February 1938 .. ..	0 12 0	0 8 0	0 7 0	0 5 0	0 6 9	2 1 7	0 6 0	0 7 0	0 6 6	+0 0 3	+0 1 3
12th February 1938 .. ..	0 12 0	0 9 0	0 7 0	Not given	..	..	0 6 0	0 7 0	0 6 6	..	..
19th February 1938 .. ..	0 12 0	0 9 0	0 7 0	0 5 0	0 7 0	2 3 1	0 6 0	0 7 0	0 6 6	+0 0 6	+0 2 6
26th February 1938 .. ..	0 12 0	0 10 0	0 8 0	0 7 0	0 8 2	2 8 9	0 6 0	0 7 0	0 6 6	+0 1 8	+0 9 4
27th and 28th February 1938† ..	0 12 0	0 9 0	0 8 0	0 7 0	0 7 10	2 7 3	0 6 0	0 7 0	0 6 6	+0 1 4	+0 7 8
								Average	0 7 0	+0 0 7	+0 2 10
										or 8.3% increase.	

\*Station was closed on 28th February 1938.

\*A.—3.5 per cent.  
 B.—39.8 per cent.  
 C.—42.2 per cent.  
 Small—19.5 per cent.  
 Cracked & stale—5.0 per cent. (Not valued).

NOTE.—The figures relating to weeks for which complete information is not available have been omitted in working out the averages.

## APPENDIX XXXVIII.

*Bye-laws of the Frontier Co-operative Egg Grading and Sale Association, Limited, Peshawar.*

1. This Society shall be called the Frontier Co-operative Egg Grading and Sale Association, Limited, Pabbi, and its registered address shall be at Railway Station, Pabbi, Post Office Pabbi, Tahsil Nowshera, District Peshawar.

## OBJECTS.

2. Its objects are to promote the economic interest of its members and more particularly :

- (1) to help the members in the purchase and sale of eggs and particularly in collection, grading, packing, processing, preserving, storing and marketing,
- (2) to raise the local standard of poultry farming,
- (3) to encourage in members the spirit and practice of thrift, mutual help and self help.

## MEMBERSHIP.

3. The members shall consist of :—

- (1) individuals or co-operative poultry societies which join in the application for registration,
- (2) individuals or co-operative poultry societies admitted in accordance with these Bye-laws.

4. Every member of the Association must be :—

- (1) an individual of good character ordinarily resident within the radius of \_\_\_\_\_ miles from the Headquarters of the Association and engaged in the business of eggs, and of not less than 18 years of age (except in the case of a minor heir of a deceased member), or
- (2) a registered co-operative poultry society within the radius of \_\_\_\_\_ miles from the Headquarters of the Association.

5. Members shall be admitted after election by the Managing Committee, subject to the confirmation of a General Meeting.

6. Every member on his admission shall sign his name or make his thumb-mark in the register of members ; a co-operative poultry society shall nominate in writing a person who shall sign the Register.

7. Membership shall be terminated by :—

- (1) death or permanent insanity of an individual, or ceasing to reside within the radius of \_\_\_\_\_ miles from the Headquarters of the Association ;
- (2) in the case of a society, cancellation of its registration ;
- (3) ceasing to hold the share or shares prescribed by Bye-law 18 ;
- (4) withdrawal after 3 months's notice in writing to the Secretary ;
- (5) expulsion by a two-thirds majority of a meeting at which not less than half of the members or 20, whichever may be less, are present and vote.

8. Every member shall nominate a person or persons to whom on his death, his shares shall be transferred but no member may nominate more than one person, unless he holds more than one share, and, in any case, unless the amount to be paid to such nominee, whether by way of whole shares or by fixed proportion of the amount available for transfer, as the case may be, is duly specified when the nominees are appointed; and he shall attest the nomination by making his signature or thumb-mark in the register of members.

9. A member shall not transfer any share held by him except to an existing shareholder or to any other person qualified under Bye-law 4 and approved by the Managing Committee for this purpose. Such transfer shall be subject to the confirmation of a General Meeting.

10. A person whose membership is terminated under Bye-law 7 (3) shall be paid the value of his shares within 6 months.

11. The value of the share or shares of a society whose registration is cancelled, shall be paid to the Liquidator within 6 months.

12. An individual or society whose membership is terminated for any other reason is entitled to transfer his shares to the existing members or to the Association and to receive the value of his shares less any sum due from him.

13. The value of the share, shall, in no case be more than the sum received by the Association in payment thereof.

14. A member may be expelled for :—

- (1) failure to pay any sum due from him to the Association;
- (2) bankruptcy or application for bankruptcy;
- (3) (if an individual) conviction of a criminal offence involving dishonesty or resulting in his imprisonment for 3 months or over;
- (4) (if a society) being classed by the Registrar or a Gazetted Assistant as D in two consecutive years;
- (5) action which may be held by the Managing Committee and a general meeting to be dishonest or contrary to the stated objects of the Association or to the interests of co-operation, such as adulterating his produce or refusing to sell his produce through the Association.

15. Any money due on any account from the Association to a member or past member, or person claiming through him, may be sent off in payment of any sum which he owes or for which he stands surety.

#### LIABILITY.

16. The liability of members for the debts of the Association shall be limited to double the nominal value of their shares.

#### CAPITAL.

17. The capital shall be composed of :—

- (1) an undetermined number of shares of the value of Rs. 50 each;
- (2) deposits from members;
- (3) deposits and loans from non-members;
- (4) realised profits.

18. Each individual member shall hold at least one share. Each society member shall hold one share for every 50 members or fraction of 50 members, but no society shall hold more than 5 shares. All shares be fully paid.

19. If any member by inheritance or otherwise becomes possessed of more than the maximum holding permitted by this rule, the Managing Committee shall have power to sell the excess number, or to buy them on behalf of the Association and to hold the proceeds at his disposal.

20. Shares may be transferred to existing shareholders or to persons approved by the Managing Committee for this purpose. Such transfers shall be subject to the confirmation of the general meeting.

#### GENERAL MEETING.

21. The supreme authority shall be invested in the general meeting which shall be held at the time of the annual audit or as soon after as may be found practicable, and at other times when summoned by the Registrar or the President, or by the Committee of their own motion or at the written request of not less than 6 members.

The presence of at least 10 individual members or representative of member societies, shall be necessary for the disposal of any business at such meetings.

If in the case of an ordinary general meeting a quorum is not forthcoming, the chairman shall postpone the meeting to a date not less than 7 days and not more than a fortnight later, and the business transacted at the postponed meeting shall be the same and no other than proposed for the original date of meeting. At such postponed meeting, if a quorum is still not forthcoming, resolutions may be carried by a majority of three-fourths of the members or representatives present.

22. In a general meeting, the following business shall be transacted :—

- (1) the election, suspension and removal of members of the managing committee including a President and one or more Vice-Presidents ;
- (2) the election of a Treasurer to keep the money of the Association ;
- (3) the consideration of the annual statement of accounts and balance sheet and of the auditor's report and the inspection notes of the Registrar and the Inspector ;
- (4) the disposal of profits in accordance with the Act, the notified rules and these Bye-laws ;
- (5) the confirmation of the admission and expulsion of members and of the transfer of shares ;
- (6) the fixing, subject to the approval of the Registrar, of the maximum liability to be incurred during the following year in loans or deposits from non-members ;
- (7) the amendment of the Bye-laws subject to the sanction of the Registrar.

23. Amendment of the Bye-laws shall be carried out by a majority of a meeting at which not less than two-thirds of the individual members or representatives of societies are present. All other questions before the general meeting shall be decided by a majority of votes. When the votes are equal, the chairman shall have a casting vote.

24. Member societies shall be entitled to be represented at a General Meeting by Representatives who must be members of the society which they present. They shall be entitled to two representatives for the first share and one for each subsequent share held.

25. All business discussed or decided at a general meeting shall be recorded in a Proceeding Book which shall be signed by the chairman of the meeting.

26. Any co-operative society registered under Act II of 1912, shall be entitled to receive the same price for the eggs produced by it to the Association, as an individual member of the Association.

#### MANAGING COMMITTEE.

27. The Managing Committee shall consist of at least 5 individual members or representatives of societies of over the age of 21, including a President and one or more Vice-Presidents. The members shall be elected for one year and shall be eligible for re-election.

28. A member of the Committee shall cease to hold office, if he :—

- (1) applies for insolvency or is declared insolvent ;
- (2) becomes of unsound mind ;
- (3) is convicted of any offence involving dishonesty or is imprisoned for 3 months ;

An individual member of the Committee shall also cease to hold office, if he ceases to be a member of this Association. A member of the committee who represents a society shall cease to hold office if :—

- (1) his society ceases to be a member of this Association ;
- (2) his society is classed as D for two consecutive years ;
- (3) he ceases to be a member of his society.

29. Meetings of the committee shall be held when necessary and in any case at least once a month.

The attendance of at least 3 members shall be required for the disposal of any business. The President or the Vice-President, or, in their absence, one of the members shall preside. Each member shall have one vote. The chairman shall have a casting vote.

30. The committee shall exercise all the powers of the Association except those reserved for the general meetings, subject to any regulation or restriction duly laid down by the Association in a General Meeting or in the Bye-laws, and in particular shall have the following powers and duties :—

- (1) to observe in all their transactions the Act, the notified rules and the Bye-laws ;
- (2) to maintain true and accurate account of all money received and expended and all stock bought and sold ;
- (3) to keep a true account of the assets and liabilities of the Association ;
- (4) to keep a register of members, correct and up to date ;
- (5) to prepare and lay before the annual general meeting a profit and loss Account and Balance Sheet ;
- (6) to examine the accounts, sanction contingent expenditure and supervise the maintenance of the prescribed Registers ;

- (7) to consider the inspection notes of the Registrar and the Inspector and take necessary action ;
- (8) to elect new members, to issue new and transfer old shares subject to the confirmation of a general meeting ;
- (9) to summon general meeting in accordance with the Bye-law 21 ;
- (10) to contract loans subject to any restrictions imposed by the General Meeting or by the Registrar ;
- (11) to arrange for the purchase and sale of eggs at the most advantageous prices on cash purchase system or on commission or hire purchase basis ;
- (12) to decide the terms on which goods and other requirements shall be bought and sold for the use of members ;
- (13) to decide the terms on, the period for, and the rate of interest at which deposits are to be received and to arrange for the payment or return of deposits ;
- (14) to arrange for the safe custody of all produce, grading machine and other implements ;
- (15) to watch for and guard against the adulteration of the produce sold through the Association and evasion of the duty of members to sell through the Association ;
- (16) to assist the inspection of books by any person authorised to see them ;
- (17) to appoint, suspend or dismiss the salaried or non-salaried officers or employees of the Association and to require all or any one of them to furnish sufficient security ;
- (18) through any member or officer or employee of the society or any other person, specially authorised, to institute, conduct, defend, compromise, refer to arbitration, or abandon legal proceedings by or against the Association, or Committee, or the officers or employees concerning the affairs of the Association ;
- (19) to acquire on behalf of the Association shares in the Central Bank ;
- (20) to hear and decide complaints relating to the business of the Association ;
- (21) to receive, withdraw, or disburse, or by special resolution authorise one or more of its members to receive, withdraw or disburse money or other property of the Association and to arrange for the safe keeping of its funds and documents ;
- (22) to make proposals to the general meeting for the payment of the dividend and the disposal of profits and the investment of the Reserve Fund in accordance with the rules and the Bye-laws ;
- (23) to consider and act upon the instructions of the Agricultural Marketing Department ;
- (24) the Association will be responsible jointly for the proper observance of the conditions laid down by the merchants at the establishment of the Grading Station with the Agricultural Marketing Department of the Government of India ;

- (25) the produce shall be marked with the registered Mark "AGMARK" of the Agricultural Marketing Adviser to the Government of India ;
- (26) In their conduct of the affairs of the Association, the committee shall exercise the prudence and diligence of ordinary men of business and shall be responsible for any loss sustained through acts contrary to Law, notified rules and Bye-laws ;
- (27) to arrange for the safe custody of books and to appoint one of its members or one of the officers of the Association to take charge of all the Registers and papers prescribed in these Bye-laws.

31. The committee may appoint from amongst its own members a small working committee, and may delegate to it or to the officers of the Association such of its own powers as may be prescribed by a general meeting.

32. All business discussed or decided at a meeting of the committee shall be recorded in a proceeding book which shall be signed by the chairman of the meeting and all the members of the committee present.

#### SECRETARY.

33. The Committee shall appoint a Secretary and if necessary a manager and may require them to give such security as the committee deems sufficient.

34. The powers and duties of the Secretary and of the Manager under his control shall be as follows :—

- (1) to superintend the working of the office, and be responsible for the proper and punctual maintenance of the accounts including a cash book and ledger showing the accounts of every shareholder, depositor, creditor and buyer and a stock register ;
- (2) to maintain correctly and up-to-date the register of members, the share list and the list of persons nominated under bye-laws ;
- (3) to procure from buyers and sellers the due execution of receipts and other acknowledgments ;
- (4) to receive deposits and issue receipts as prescribed by the committee ;
- (5) to buy and sell egg produce and other requirements as directed by the committee ;
- (6) to receive money due to Association and give receipts ;
- (7) to pay money due from the Association ;
- (8) to incur contingent expenditure subject to the sanction of the committee ;
- (9) to sign on behalf of the Association and conduct its correspondence ;
- (10) to summon and attend general meetings and meetings of the committee ;
- (11) to certify copies of entries in books under Section 26 of the Act ;
- (12) to keep in hand sum not exceeding Rs.                      in absence of the Cashier ;

(13) generally to conduct the current business of the Association and to perform all duties entrusted to him by the committee.

35. The committee shall appoint one of its members or one of the officers of the Association to take hold and keep in safe custody all the Registers and papers in the use of the Association and prescribed in Bye-laws 34.

36. The registers and papers of the Association shall be open to the inspection of any one interested in the funds, except that no one shall be allowed to see the deposit account of any persons without that person's consent in writing.

Copies of the Bye-laws and of the Balance Sheet shall be supplied free on demand to any member.

37. All charges or other instruments executed on behalf of the Association, except receipts, shall bear the signature of the Secretary or the Manager and also at least one member of the committee, as representing the Association.

#### TREASURER.

38. A treasurer may be appointed by the committee to take charge of all money entrusted to him by the Association and to account duly for the same and to make such payment as the committee or the Secretary or Manager may order in accordance with their powers. The Treasurer may keep in hand an amount not exceeding Rs. 400 and shall pay all sums exceeding this amount into a Bank approved by the committee. He shall give security of not less than rupees . . . He shall sign the Cash Book in token of its correctness and produce the Cash Balance whenever called upon to do so by the Committee or Auditor.

#### BINDING RULES.

39. The Association shall accept from every member all eggs produced supplied by him provided that the sale of such produce is customarily undertaken by the Association and it is delivered in good condition and is suitable to be sold by the Association and is delivered at such time as may be warranted by the market conditions. In case of any default by the Association in acceptance of such produce, it shall pay to every member in respect of whom default has been made a sum equal to the difference between the price of the produce calculated according to the highest rate reached on that particular date of that particular quantity or commodity and the price at which the produce was actually sold by the members.

40. Every member shall deliver to the Association for sale all his saleable eggs produce which the Association is willing to accept. In case of default by any member in respect of the quantity of the produce to be delivered under this Bye-law, the Managing Committee shall be empowered to impose on the defaulting member a fine equal to the produce not sold to the Association.

41. The Association and its members respectively shall be temporarily absolved from the obligations imposed by Bye-laws 39 and 40 in the event of the work of the Association being brought to partial or complete standstill by accident or by any other cause over which the Association and its members can exercise no control.

#### GENERAL PROVISION.

42. The funds of the society may be devoted to the promotion of the stated objects of the Association and to the purposes set forth in Bye-laws.



43. The Association may build such offices, sheds and godowns as may be necessary to carry out its stated objects and may acquire land for this purpose.

44. All transactions shall be strictly on cash terms or on hire purchase system.

45. Every member shall be bound by the rules or instructions of the Managing Committee as to the grading of eggs produce in respect of its quality and bulk.

46. No loans will be given to any person.

47. The Association shall pay such prices on the purchase of eggs as may be fixed from time to time in a general meeting.

48. The Association may join in co-operative purchase or sale with other co-operative societies within the radius of \_\_\_\_\_ miles from the Headquarter of the Association.

49. Of the annual profits not less than 25 per cent., shall be placed to reserve, of the remainder a bonus of not more than 3 months' pay may be given to all employees of the Association, a dividend not exceeding 10 per cent. may be paid on shares and out of the balance a rebate may be disbursed to members in proportion to their transactions through the Association.

50. No dividend or rebate shall be paid to any member society which fails to sell through the Association a minimum amount of produce to be fixed once a year in general meeting.

51. Before or after the payment of a dividend  $7\frac{1}{2}$  per cent. of the profits may be applied to any purpose referred to in Section 34 of the Act and approved by the Registrar, namely, relief of the poor, education, medical relief and the advancement of any other objects of general public utility except one relating exclusively to religious teachings or worship or to a common good fund to be devoted to any of these purposes.

52. The society shall pay such audit fee as may from time to time be fixed by the Registrar.

53. The reserve fund is indivisible and no member is entitled to claim specified share in it. It shall be invested in Government securities or otherwise as directed by the Registrar, under Section 32 of the Act. It may be employed to cover unforeseen losses and to provide security for Association's contract.

#### DISPUTES.

54. Any dispute concerning these Bye-laws or the business of the Association between members or past members of the Association or persons claiming through them or between a member or a past member or person so claiming and the committee or any officer shall be referred to the Registrar as provided in the rules notified by the Local Government.

(1) The execution work shall be given to the person or Execution Union selected by the Department and the Association shall not be empowered to withdraw any award unless the dues of the Execution Union or Execution Agent have been paid.

(2) The Association shall not be entitled to send its resolution, etc., to the court direct.

#### LIQUIDATION.

55. The Association shall be liquidated only by the order of the Registrar under Section 39 or Section 40 of the Act.

56. After discharging the liabilities of the Association and repaying the share capital, the reserve fund may be applied to such objects of local and public utility as may be selected by the committee and approved by the Registrar. If within 3 months of the dissolution of the Association, the committee fails to select an object that is approved by the Registrar, the latter shall credit the balance of the Reserve Fund to the Co-operative Society to which the Association was affiliated or shall deposit the amount in some co-operative or other bank until a new co-operative Association with a similar area of operation is registered in which case, it shall be credited to the Reserve Fund of the New Association.

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APPENDIX XXXIX.

Distribution of Exports of Eggs from chief exporting countries, 1935-36.

[Thousand great hundreds]

Exporting countries.	Country to which consigned.													
	Total.		United Kingdom.		Germany.		France.		Switzerland.		Spain.		Principal other countries.	
	1935.	1936.	1935.	1936.	1935.	1936.	1935.	1936.	1935.	1936.	1935.	1936.	1935.	1936.
Irish Free State ..	3,055	3,967	2,484 81%	2,631 86%	343 11%	277 9%	..	..	..	..	217 7%	54 2%	....	....
Australia* ..	1,737	1,650	1,739 99%	(a)	..	(a)	..	(a)	..	(a)	..	(a)	....	(a)
South Africa..	367	385	355 97%	373 97%	..	..	..	..	..	..	..	..	Portuguese East Africa 2%; South Rhodesia 1%	Portuguese East Africa 2%
Denmark ..	9,769	11,682	6,451 66%	8,032 69%	2,162 22%	2,802 34%	5	5	783 8%	615 5%	279 3%	89 1%	....	Sweden 1%.
Netherlands ..	8,340	8,632	2,940 36%	4,212 49%	4,289 51%	3,111 36%	24	22	76 1%	112 1%	474 6%	306 4%	Belgium 4% ..	.. Belgium 6%.

China	..	..	2,490	3,307	1,038	1,612	60	259	..	..	..	..	..	..	..	Hong Kong 42%; Philippines 7%; Straits Settlements 4%.	Hong Kong 29%, Philippines 6%, Straits Settlements 4%.
Poland	..	..	3,060	3,216	1,659 54%	2,098 66%	..	212 7%	54 2%	46 1%	128 4%	125 4%	763 25%	234 7%	..	Austria 5%, Italy 1%, Czechoslovakia 8%.	Austria 5%, Italy 2%, Czechoslovakia 6%.
Bulgaria	..	..	1,703	2,332	1	..	1,112 65%	1,770 76%	..	..	260 15%	300 13%	231 14%	202 9%	..	Italy 4%, Austria 1%	Italy 1%; Austria 1%.
Belgium	..	..	1,548	1,658	165 11%	288 18%	368 24%	825 50%	27 2%	51 3%	62 4%	108 7%	871 56%	249 21%	..	Morocco 1%	....
Yugoslavia	..	..	1,485	1,547	..	151	544	534	1	1	303	399	2	93	..	Italy 24%, Austria 6%, Czechoslovakia 12%.	Austria 5%, Czechoslovakia 17%, Italy 1%.
Roumania	..	..	920	1,601	134 15%	1,028 64%	563 61%	254 16%	..	1	61 7%	40 3%	40 4%	17 1%	..	Czechoslovakia 11%, Austria 1%, Palestine 1%.	Czechoslovakia 9%, Palestine 4%.
Morocco	..	..	1,391	1,359	3	1	..	1	1,012 73%	911 67%	..	..	200 21%	383 28%	..	Algeria 3%	Algeria 3%.
Hungary	..	..	1,101	924	6	..	353 32%	379 41%	..	..	..	66 7%	..	22 2%	..	Austria 43%, Italy 17%	Austria 37%, Italy 12%.
Egypt	..	..	484	631	113 23%	203 32%	..	..	..	..	..	..	..	..	..	Gibraltar 26%, Malta 9%.	Gibraltar 26%, Malta 12%.
																Italy 7%; Palestine, 33%.	Palestine 23%.

\*Twelve months ending 30th June of following year.

(a) Figures not available.

APPENDIX XL.

Monthly average price of eggs in London, 1932—37 (per 120).

Months.	English National Mark Specials.						English National Mark Standards.						
	1932.	1933.	1934.	1935.	1936.	1937.	1932.	1933.	1934.	1935.	1936.	1937.	
	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>	<i>s. d.</i>
January .. ..	18 0	16 11	17 0	15 4	15 2	15 2	17 0	15 5	14 1	14 1	15 9	13 11	
February .. ..	14 8	16 4	14 2	13 8	16 4	15 6	13 4	15 7	13 7	12 8	15 5	14 11	
March .. ..	11 5	11 0	10 4	10 6	11 7	12 10	10 7	10 3	9 5	9 8	10 7	12 1	
April .. ..	11 1	10 3	10 4	9 10	10 4	10 10	10 3	9 4	9 7	9 1	9 8	10 2	
May .. ..	10 9	10 7	9 11	10 11	11 9	11 2	9 3	9 7	9 2	9 11	10 9	10 5	
June .. ..	12 7	13 1	12 7	12 9	13 1	13 11	11 4	11 8	10 11	11 8	12 1	12 9	
July .. ..	14 3	14 2	13 9	14 0	16 2	16 9	13 6	12 10	12 2	13 4	15 3	15 9	
August .. ..	15 8	17 6	17 5	17 6	17 7	18 4	14 8	16 1	16 5	16 11	16 8	17 7	
September .. ..	18 11	18 11	16 9	18 5	18 6	21 0	17 6	17 6	14 8	17 3	17 6	19 3	
October .. ..	21 11	20 1	20 3	20 5	23 2	22 5	20 8	19 1	18 11	19 2	21 6	20 6	
November .. ..	24 1	23 3	24 0	24 2	23 0	..	22 9	22 0	22 8	22 6	20 11	..	
December .. ..	21 10	21 10	21 0	22 2	21 11	..	18 2	19 6	19 2	20 8	19 9	..	
Year .. ..	16 4	16 2	15 8	15 10	16 9	..	14 11	14 11	14 5	14 9	15 6	..	

APPENDIX XI—contd.

Monthly average price of eggs in London, 1932—37 (per 120)—contd.

Month.	Danish 15½ lb.						Dutch Best Mixed 57/58†					
	1932.	1933.	1934.	1935.	1936.	1937.	1932.	1933.	1934.	1935.	1936.	1937.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
January .. ..	13 5	13 5	12 6	10 9	13 3	9 5	13 5	13 11	13 5	9 9	12 11	9 3
February .. ..	10 8	14 2	9 11	10 2	11 7	10 9	10 9	14 4	9 8	9 11	10 11	10 4
March .. ..	9 4	8 6	7 5	8 3	9 0	10 7	9 3	8 9	7 8	8 0	8 5	10 1
April .. ..	7 11	7 3	7 11	7 5	8 2	8 5	7 10	7 8	6 11	6 11	7 11	8 3
May .. ..	8 1	8 4	7 8	7 9	8 8	8 2	8 1	8 5	7 6	7 4	8 2	7 9
June .. ..	8 9	8 5	8 2	8 4	8 6	8 5	9 0	8 6	8 2	8 0	8 3	8 0
July .. ..	9 8	8 4	8 4	9 0	9 8	10 9	9 7	8 9	8 4	8 9	9 1	10 5
August .. ..	10 8	11 9	11 5	11 6	10 8	11 6	10 10	12 3	11 2	11 4	10 1	11 0
September .. ..	13 4	11 11	11 7	11 9	12 8	13 10	13 5	12 8	11 0	11 2	11 8	13 8
October .. ..	15 5	13 7	14 2	14 5	14 9	14 8	14 10	15 11	14 0	14 0	13 8	14 5
November .. ..	20 5	17 1	18 4	16 5	15 6	..	..	..	17 3	14 9	14 3	..
December .. ..	17 0	17 1	15 4	15 8	13 0	..	..	17 11	14 0	14 8	11 9	..
Year .. ..	12 1	11 8	11 1	10 11	11 3	..	10 8*	11 9†	10 11	10 5	10 7	..

\*Best mixed 15½ lb. from 1932 to 1935.

†Ten months average.

‡Eleven months average.

## GLOSSARY OF VERNACULAR TERMS.

## A

- Ande-ka-halwa* .. .. A variety of Indian pudding consisting mostly of eggs.
- Ashwin* .. .. A month of Hindu calendar, corresponding to September—October.
- Asils* .. .. A breed of fowls originally used for fighting, from *asal* = real, pure.

## B

- Bahangi* .. .. A pole the ends of which are connected by ropes to a flat contrivance for carrying loads, the pole being balanced on the shoulder.
- Basant* .. .. A Hindu festival heralding the spring.

## C

- Chittagong* .. .. A breed of fowls from Chittagong (Bengal).
- Chouli* .. .. Two annas.

## D

- Desi* .. .. Literally, of country; an indigenous unimproved fowl.

## E

- Ekka* .. .. An old type of single horse trap.

## G

- Ganda* .. .. Rotten; literally dirty.
- Ghagas* .. .. A heavy breed of fowls, with feathers on their shanks.

## H

- Hali* .. .. Four.
- Hat* .. .. A weekly or periodical market.

## I

- Id* .. .. A Muslim festival.
- Itwar* .. .. Sunday.

## J

- Jaliwala* .. .. Eggs having blood rings or meat spots: (literally *jali* = network).  
*Jora* .. .. A pair.

## K

- Kachcha* .. .. Not *pakka*; (of houses) made of mud.  
*Kajla* .. .. A caravan.  
*Kamgar* .. .. Literally, a worker; an assistant on a poultry farm.  
*Karaknath* .. .. A breed of fowls, noted for its black skin.

## L

- Lolab* .. .. A breed of fowls, said to have come originally from Lolab valley in Kashmir.

## M

- Mela* .. .. Fair.  
*Moong* .. .. A kind of pulse.  
*Munj* .. .. A kind of dried grass out of which ropes are made.  
*Muthies* .. .. Handfuls.

## N

- Naram* .. .. Weak; literally soft.  
*Neem* .. .. A kind of tree. (*Melia Azadirachta*).

## P

- Pakka* .. .. Firm, regular, final; (of building) made of masonry.  
*Pan* .. .. Betel leaves.  
*Panch* .. .. Five.  
*Panchayat* .. .. A body selected to act as umpires, from "panch" meaning five.  
*Parcha* .. .. Receipt; literally slip.  
*Penih or painth* .. .. See *Hat*.  
*Pilchi* .. .. Mulberry twigs.

## S

- Sargara* .. .. A kind of grass, used as packing material in the North.  
*Shandies* .. .. See *Hat*.  
*Shisham* .. .. A tree—*Dulbergia Sisu*.  
*Shukkerwar or Shukkerwari* .. .. Friday or falling on a Friday.



## T

<i>Taza</i>	..	..	..	Fresh.
<i>Tehsildar</i>	..	..	--	Subordinate revenue officer in direct charge of <i>tehsil</i> (sub-division).
<i>Tenies</i>	..	--	--	A small type of fowls: literally diminutive. Some times the word is used for <i>desi</i> hens.

## V

<i>Viss</i>	--	--	--	A kind of weight used in Burma, equivalent to 3 lb. 6 oz.
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