

REPORT ON INDIAN WHEAT

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Report on Indian Wheat by Forbes Watson

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FORBES WATSON

**REPORT ON
INDIAN WHEAT**

REPORT
ON
INDIAN WHEAT

BY
DR. FORBES WATSON.

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



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VALUATION OF THE SAMPLES.

BENGAL.—LOWER PROVINCES.

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<i>Presidency Division :</i>		<i>Rajshahye Division :</i>	
Nuddea district	26	Moorshedabad district	27
		Rajshahye	27
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	Page.	Patna Division :	Page.
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Lohardugga "	- 29	Patna "	- 30
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<i>Benares Division :</i>		<i>Jhansi Division :</i>	
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Bonares "	- 31	Jhansi "	- 38
Basti "	- 31	Lalitpur "	- 39
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Cawnpore "	- 33	Muttra "	- 41
Futtehpore "	- 33	Mainporei "	- 41
Jounpore "	- 34		
<i>Roy Bareilly Division :</i>		<i>Rohilkund Division :</i>	
Pratabgarh district	- 34	Bareilly district	- 42
Roy Bareilly "	- 34	Budaon "	- 42
Sultaupur "	- 34	Mooradabad "	- 43
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<i>Fyzabad Division :</i>		<i>Kumaon Division :</i>	
Bharaich district	- 35	Gurwal district	- 43
Fyzabad "	- 35	Kumaon "	- 43
Gonda "	- 36		
<i>Lucknow Division :</i>		<i>Meerut Division :</i>	
Barabanki district	- 36	Algurh district	- 43
Lucknow "	- 36	Bulundshahr "	- 44
Unao "	- 37	Dehra Doon "	- 44
		Meerut "	- 45
<i>Sitapur Division :</i>		Muzaffarnuggur "	- 45
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Sitapur "	- 38		

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<i>Delhi Division :</i>		<i>Lahore Division :</i>	
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Gurgaon "	- 46	Gujranwala "	- 49
Kurnool "	- 46	Lahore "	- 49
<i>Hissar Division :</i>		<i>Mooltan Division :</i>	
Hissar district	- 46	Jhang district	- 49
Rohtak "	- 47	Montgomery "	- 49
Sirsa "	- 47	Mooltan "	- 49
		Muzaffargarh "	- 49
<i>Umballa Division :</i>		<i>Rawulpindee Division :</i>	
Umballa district	- 47	Gujerat district	- 50
Loodiana "	- 47	Jhelum "	- 50
Simla "	- 47	Rawulpindee "	- 50
		Shahpur "	- 50
<i>Jullundur Division :</i>		<i>Peshawur Division :</i>	
Hoshiarpur district	- 48	Hazara district	- 50
Jullundur "	- 48	Kohat "	- 50
Kangra "	- 48	Peshawur "	- 51
<i>Umritsur Division :</i>		<i>Derajat Division :</i>	
Umritsur district	- 48	Bannu district	- 51
Gurdaspur "	- 48	Dera Ghazi Khan	- 51
Stalkot "	- 49	Dera Ismail Khan	- 51

BOMBAY PRESIDENCY.

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

<i>Northern Division :</i>				<i>Southern Division :</i>			
Ahmedabad district	-	-	- 56	Ahmednuggur district	-	-	- 59
Broach "	-	-	- 56	Belgaum "	-	-	- 59
Kaira "	-	-	- 56	Dharwar "	-	-	- 59
Khandesh "	-	-	- 57	Kaladgi "	-	-	- 60
Nasick "	-	-	- 58	Poona "	-	-	- 60
Punch Mebals "	-	-	- 58	Satara "	-	-	- 61
Surat district	-	-	- 58	Sholapur "	-	-	- 61
Thana "	-	-	- 58				

CENTRAL PROVINCES.

<i>Nerbudda Division :</i>				<i>Chutteegegurh Division :</i>			
Baitul district	-	-	- 61	Bilaspur district	-	-	- 63
Chindwarra "	-	-	- 61	Raipore "	-	-	- 63
Hoshangabad "	-	-	- 61				
Nimar "	-	-	- 61	<i>Nagpore Division :</i>			
Nursingpore "	-	-	- 62	Balaghat district	-	-	- 63
<i>Jubbulpore Division :</i>				Bhandara "	-	-	- 63
Damoh district	-	-	- 62	Chanda "	-	-	- 63
Jubbulpore "	-	-	- 62	Nagpore "	-	-	- 64
Mandla "	-	-	- 62	Wurdha "	-	-	- 64
Saugor "	-	-	- 62	Upper Godavery "	-	-	- 64
Seoni "	-	-	- 63				

BERAR.

<i>East Berar :</i>				<i>West Berar :</i>			
Oomraottee district	-	-	- 64	Akola district	-	-	- 65
Ellichpur "	-	-	- 65	Buldana "	-	-	- 66
Woon "	-	-	- 65	Bassim "	-	-	- 66

MADRAS PRESIDENCY.

Bellary district	-	-	- 66	Kistna district	-	-	- 67
Coimbatore "	-	-	- 67	Nilgherry "	-	-	- 67
Cuddapah "	-	-	- 67	Tinnevelly "	-	-	- 67
Kurnool "	-	-	- 67				
MYSORE	-	-	- 67	BURMA	-	-	- 68

1. The first part of the document discusses the importance of maintaining accurate records of all transactions and activities. It emphasizes that this is crucial for ensuring transparency and accountability in the organization's operations.

2. The second part outlines the various methods and tools used to collect and analyze data. This includes both traditional manual methods and modern digital technologies, highlighting the benefits of each approach.

3. The third part focuses on the challenges associated with data management and analysis. It identifies common pitfalls and provides strategies to overcome them, such as ensuring data quality and security.

4. The fourth part discusses the role of data in decision-making and strategic planning. It explains how data-driven insights can help organizations identify opportunities, mitigate risks, and optimize their performance.

5. The fifth part addresses the ethical considerations surrounding data collection and use. It stresses the importance of protecting individual privacy and ensuring that data is used responsibly and in compliance with relevant laws and regulations.

6. The sixth part provides a summary of the key findings and recommendations. It reiterates the importance of a data-driven approach and offers practical advice for implementing effective data management practices.

7. The final part of the document includes a list of references and a glossary of key terms. This section is intended to provide additional resources for readers and ensure that all terminology is clearly defined.

REPORT ON INDIAN WHEAT

BY

DR. FORBES WATSON.

INTRODUCTION.

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

Bearing of the wheat export on the silver question.

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

Report, map, synoptical table of results, and typical collection of specimens.

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

Principal results of the valuations.

	Number of Samples.				
	Soft white.	Hard white.	Soft red.	Hard red.	Total.
Superior samples, 44s. to 48s. per quarter of 496 lbs.	101	—	—	—	101
Grade No. 1., 41s. 6d. to 43s. 6d.	128	18	10	—	146
Grade No. 2., 39s. 6d. to 41s.	73	83	56	—	212
Ordinary, 37s. to 39s.	51	61	74	68	254
Inferior, below 37s.	9	10	20	75	114
Total No. of samples	357	167	160	143	827
Average price per quarter	s. d. 41 9	s. d. 39 5	s. d. 38 5	s. d. 36 1	s. d. 39 8

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

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

Comparison of the prices realised by the Indian samples with the current quotations of foreign wheats.

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

	per quarter of	
Danzig	496 lbs.	42s. to 46s.
Australian	"	47s. to 48s.
Californian and Oregon	"	44s. to 45s.
White American and Canadian	"	42s. to 46s.
No. 1 Milwaukee	"	42s. to 43s.
No. 2	"	40s. to 41s.
No. 2 Spring	"	38s. to 40s.
No. 3	"	36s. to 37s.

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

Comparison with current quotations of English wheat.

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

India admirably suited for the growth of the finest qualities of both soft and hard wheat.

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