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TAMIL NADU ARCHIVES

GOVERNMENT OF TAMIL NADU

Revenue DEPARTMENT

G.O. No.	1229	Press.
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1229
1

GOVERNMENT OF MADRAS.
REVENUE DEPARTMENT.

3rd August 1878, No. 1,229.

Read the following paper:—

No. 40. Proceedings of the Board of Revenue, dated 5th July 1878, No. 1,863.

THE Board resolve to submit to Government the following report on the cultivation of and trade in cotton for Fasli 1286.

2. *Season.*—The principal cotton-producing districts in this Presidency are Bellary, Tinnevely, Kurnool, Kistna, Coimbatore, Madura and Cuddapah, and in these except in parts of Kistna, the season was most unfavorable for cotton as for other crops. There was a large diminution in the area of cultivation owing to deficiency of rainfall during the cultivation season, and the crop failed altogether in many places. The yield, where there was any, was deficient in quality as well as quantity.

3. *Area under Cultivation.*—About one million of acres or one-seventeenth of the total area cultivated in the Government Taluqs of this Presidency is usually under cotton, but in Fasli 1286 the area under cotton in Government Taluqs was only 615,000 acres. The decrease in cotton cultivation is a great deal more than proportionate to that in the total extent of cultivation, which is owing to the season being peculiarly bad in the cotton-growing districts. The subjoined statement shows the particulars of cultivation in each district:—

Districts.	Fasli 1284.	Fasli 1285.	Fasli 1286.	Percentage of Increase or Decrease in Fasli 1286 compared with the Cultivation of Fasli 1285.
	ACRES.	ACRES.	ACRES.	
1. Bellary	337,550	385,596	44,713	— 88
2. Tinnevely	284,622	281,569	213,492	— 24
3. Kurnool	202,613	244,130	85,026	— 65
4. Kistna	226,414	229,583	211,619	— 8
5. Coimbatore	193,464	184,520	140,393	— 24
6. Madura	97,412	95,429	73,937	— 22
7. Cuddapah	75,952	85,701	34,286	— 59
8. Trichinopoly	49,540	43,186	37,228	— 14
9. Nellore	20,594	23,303	7,708	— 65
10. South Arcot	18,669	16,442	9,407	— 43
11. Godavery	17,026	14,265	18,873	+ 32
12. Vizagapatam	16,653	12,900	20,303	+ 57
13. Ganjam	11,085	12,675	13,288	+ 6
14. Salem	20,999	12,630	11,507	— 9
15. Tanjore	4,391	4,060	3,965	— 2
16. North Arcot	210	263	214	— 18
17. South Canara	164	134	153	+ 14
18. Chingleput	5	3	3	...
Total ...	1,577,363	1,645,389	926,115	— 43.7
Government Tracts	1,008,869	1,045,406	614,850	...
Inam Tracts	357,145	399,095	160,640	...
Zemindari Tracts	211,349	200,888	150,625	...

4. *Species cultivated.*—The cotton grown during the year in all the districts except Coimbatore was indigenous. In the latter acclimatized Bourbon and American

species were also cultivated. Experimental cultivation of New Orleans cotton was attempted in the Namkal Taluq of the Salem District, but the result was as in the previous year a failure. In the indigenous cotton under cultivation there are several varieties. Some are of a pure white and some of a dull white color. Some have large leaves and pods of greater size than others, and the fibres of some are supposed to be stronger and the cloth made of them to wear longer than that made of others. The Collector of Cuddapah considers it highly probable that the seed cultivated in his district was originally brought from the cotton-growing districts of Bombay.

5. The Collector of Trichinopoly desires to make an experiment with the seeds of the best American cotton, and requests that if the Board approve, the Superintendent of the Government Farms at Sydapet may be requested to send a small supply. Such requisitions should be made separately and not mixed up in annual reports thereon. The Superintendent of Government Farms will, however, be requested to supply the Collector with a supply of the best seed available, and the Collector will report how he proposes to conduct the experiment.

6. *Outturn of cleaned Cotton and Quality.*—The aggregate outturn of cleaned cotton during the year is estimated by Collectors, as shown below, at 183,463 cwts. against 461,195 in Fasli 1285. The decrease is 60 per cent. on the whole. Much reliance cannot, however, be placed on these estimates. The actual exports of cotton in the last three years have far exceeded the estimates of outturn in these years which would seem to be impossible if the estimates were accurate:—

Districts.	FASLI 1285.		FASLI 1286.		Percentage of Increase or Decrease in Fasli 1286 as compared with the Outturn of Fasli 1285.
	Quantity.	Value.	Quantity.	Value.	
	CWTS.	RS.	CWTS.	RS.	
1. Bellary	100,000	18,41,740	6,453	40,878	— 93
2. Tinnevely	69,843	16,68,890	40,170	8,57,848	— 42
3. Kurnool	66,378	11,68,869	1,026	41,562	— 98
4. Kistna	76,652	11,78,852	57,626	11,13,243	— 25
5. Coimbatore	63,633	13,47,077	14,272	3,57,181	— 77
6. Madura	27,038	6,02,074	7,685	1,71,788	— 71
7. Cuddapah	12,642	4,23,946	7,347	1,71,430	— 42
8. Trichinopoly	9,275	Not given.	9,620	Not given.	+ 4
9. Nellore	5,600	1,24,450	3,448	7,125	— 38
10. South Arcot	1,939	32,518	505	14,145	— 74
11. Godavery	9,287	1,89,303	12,638	3,08,579	+ 36
12. Vizagapatam	6,231	1,20,318	10,332	2,39,407	+ 66
13. Ganjam	3,968	1,25,481	5,055	1,53,406	+ 27
14. Salem	5,155	1,52,005	4,395	1,31,877	— 15
15. Tanjore	3,218	25,166	2,779	23,927	— 14
16. North Arcot	55	1,495	...	...	— 100
17. South Canara	281	6,625	112	3,356	— 60
Total ...	461,195	90,09,409	183,463	36,35,752	— 60

7. The estimates of yield per acre given by Collectors are not reliable. In some cases they have been obtained by dividing the total estimated outturn by the number of acres cultivated whether any crop was obtained therefrom or not, while in others the calculation has been properly made by dividing the outturn by the area on which a crop was actually raised. The subjoined statement shows the yield per

acre obtained by dividing the whole of the estimated yield by the area cultivated, and the figures given by Collectors:—

Districts.	Fasli 1284.	Fasli 1285.	FASLI 1286.		Remarks.
			Yield as given by Collectors.	Yield per Acre obtained by dividing the Total Outturn by the Area cultivated.	
	LBS.	LBS.	LBS.		
1. Bellary	34	29	18	17	
2. Tinnevely	98	28 to 112	40	21	
3. Kurnool	32	30	3	1.4	
4. Kistna	40	37	19	31	
5. Coimbatore	38	29	22	11.4	
6. Madura	37	35	12½	12	
7. Cuddapah	31	25	25	24	
8. Trichinopoly	35	24	29	29	
9. Nellore	31	28	25	51	
10. South Arcot	17	13	6	6	
11. Godavery	180	218½	225	75	
12. Vizagapatam	57	54	57	52	Uncleaned.
13. Ganjam	56	112	168	43	
14. Salem	49	45	42	43	
15. Tanjore	22	23	162	78	
16. North Arcot	25	24	...	...	
17. South Canara	158	234	84	82	
18. Chingleput	...	...	...	...	
19. Madras	...	...	...	...	

In future Collectors are requested to show in their reports the extent of land which though cultivated did not yield any crop separately from the total area under cultivation and also to calculate the average produce only on the extent which actually yielded any outturn during the year. Endeavors should be made to make the estimates as reliable as possible.

8. *Cost of Cultivation.*—The expenses of cultivation in the several districts as reported by Collectors are thrown together below:—

Districts.	Cost.			Remarks.
	RS.	A.	P.	
1. Bellary	5	0	0	
2. Tinnevely	From 5	12	0	
3. Kurnool	" 0	8	0	
4. Kistna	" 3	4	0	
5. Coimbatore	" 7	0	0	
6. Madura	" 6	4	0	
7. Cuddapah	" 5	0	0	
8. Trichinopoly	" 10	0	0	
9. Nellore	" 0	12	0	
10. South Arcot	" 4	0	0	
11. Godavery	" 6	8	0	
12. Vizagapatam	" 5	0	0	
13. Ganjam	" 3	0	0	
14. Salem	" 5	8	0	
15. Tanjore	" 3	0	0	
16. South Canara	Not known.			
17. Chingleput	...	...	...	

Including cost of feeding cattle and servants.

The rates given for the several districts vary from Annas 8, the minimum in Kurnool, to Rupees 12-12-0, the maximum in South Arcot. Collectors do not specify how they have calculated the cost. No doubt the cost of cultivation will vary greatly according to the nature of the soil, facilities for cultivation, &c., but the Board doubt whether it will differ so widely. In future reports Collectors are requested to show the component items of the estimate of the cost to enable the Board to see how far the estimate is reliable.

9. *Average ruling prices of Cotton retained for local consumption.*—The information furnished by Collectors under this head in the reports under review is shown in the subjoined statement in comparison with particulars deduced from the monthly returns received by the Board. The prices obtained from the latter differ widely from the former in Cuddapah, Bellary, Tanjore and South Canara. The Collectors concerned are requested to explain the variations. The rate of Rupees 81 given by the Collector of Trichinopoly is that which prevailed during the first six months of the year. Cotton was sold in this district at double the rate during January, February and March; subsequently the price fell, and at the close of the fasli cotton was sold at Rupees 112 per candy:—

Districts.	Average deduced from the monthly price returns per candy of 500 lbs.	As given in the cotton report per candy of 500 lbs.	Remarks.
	RS.	RS.	
1. Bellary	96	80	
2. Tinnevely	107	107	
3. Kurnool	107	113	
4. Kistna	93	100	
5. Coimbatore	113	115	
6. Madura	101	100	
7. Cuddapah	104	100	
8. Trichinopoly	126	81	Double this rate during January, February and March.
9. Nellore	128	125	
10. South Arcot	109	109	
11. Godavery	118	114	
12. Vizagapatam	131	131	
13. Ganjam	122	120	
14. Salem	116	94	
15. Tanjore	110	Not given.	
16. North Arcot	119	134	
17. South Canara	93 to 110	102	
18. Madras			

10. *Exports and Imports.*—The total quantity of cotton exported from this Presidency during the year was 370,378

	Cwts.	Value.	
		RS.	
* Fasli 1285	698		
" 1286	6,352		
	Quantity.	Value.	
	CWTS.	RS.	
Fort St. George	199,014	4,457,940	
Godavery	63,528	1,303,272	
Kistna	4,714	1,05,600	
Tanjore	225	4,520	
Tinnevely	102,686	23,81,986	
South Canara	7	142	
Malabar	204	6,450	
Total	370,378	82,59,910	

Presidency during the year was 370,378 cwts. against 704,068 cwts. in Fasli 1285. The decrease is chiefly under Exports to the United Kingdom, amounting to 236,919 cwts. or 71 per cent. of the gross decrease. The imports,* however limited as they are, show a considerable increase. These results are no doubt due to the diminished outturn of the year. The districts from which cotton was exported are shown in the margin, and the subjoined statement shows the countries to which the cotton was exported together with the quantities taken to each in comparison with similar particulars for Fasli 1285:—

	FASLI 1285.		FASLI 1286.	
	Quantity.	Value.	Quantity.	Value.
	CWTS.	RS.	CWTS.	RS.
<i>Exports.</i>				
To Foreign countries—				
To United Kingdom	475,122	106,69,522	238,203	53,47,381
" France	76,723	16,35,106	61,139	12,80,999
" Austria, Trieste	26,622	6,08,666	6,831	1,55,171
" Italy, Venice	26,038	5,44,731	6,295	1,45,319
" Genoa	9,677	2,23,473	3,964	92,040
" Holland	6,482	1,45,200	10,355	2,36,999
" Ceylon	1,998	45,203	8,916	2,16,498
" China, Hong Kong	50,837	11,26,293	21,398	4,85,826
Total Exports to Foreign countries...	673,499	149,98,194	357,101	79,60,233
To other Presidencies and Indian Ports not British.				
To Calcutta	30,230	6,78,593	10,980	2,45,925
" Bombay	32	660	204	6,450
" Other Ports	26	410	7	142
" Pondicherry	281	6,300	2,086	47,160
Total Exports to other Presidencies and Indian Ports not British in this Presidency	30,569	6,85,963	13,277	2,99,677
Grand Total...	704,068	156,84,157	370,378	82,59,910

not reliable.

Districts.	Exported from	Imported into
	CWT.	CWT.
Bellary	188,363	33,257
Tinnevely	492	1,818
Coimbatore	10,790	51
Madura	1,302	166
Cuddapah	222	23
Trichinopoly	173	36
South Arcot	16	21
Tanjore	10	24
North Arcot	15	75
Chingleput	...	199
Malabar	21	2
Madras	1,227	199,348
Nizam's Territory	32,221	55
Other Stations	76,556	76,330
Total	311,408	311,408

12. *The manner in which Cotton is brought down to the Port of Shipment.*—From Bellary and Kurnool cotton is sent chiefly to Madras in pressed bales. From Kistna it is brought first to Jaggiapet where it is pressed in a hand-press and brought down on carts to Bezvada, whence it is sent by canal either to Cocanada or one of the ports of the district. From Madura and Tinnevely cotton is generally carried by rail to Tuticorin or Madras in unpressed bales. From Coimbatore and Salem it is transported both by rail and road; from the latter always in unpressed bales, from the former sometimes in fully pressed and at other times in unpressed bales.

13. *Freight.*—The annexed table shows the rates per ton prevailing in Fasli 1286 in comparison with those of Fasli 1285:—

Districts.	EXPORTS.			IMPORTS.		
	To what places.	Quantity.	Value.	From what places.	Quantity.	Value.
Bellary	Bombay, Madras, Bangalore.	CWT. 21,000	Rs. Not given	Kurnool and Nizam's Territories.	CWT. Not given.	
Kurnool	Godavery and Madras.	84,895	16,97,900	Kistna	147	Not given.
Kistna	Madras, Quilon, Trichinopoly, and Malabar.	8,507	1,95,301	Nizam's Territories.	Not given.	
Coimbatore	Tinnevely...	5,520	1,35,945			
Madura	Nellore, Kistna, and Madras.	1,562	20,000	Kurnool and Bellary.	781	17,500
Cuddapah						
Nellore				Cuddapah and Kistna.	2,409	Not given.
Vizagapatam				Kistna, Godavery, and Central Provinces.	7,840	1,09,262
Ganjam				Bengal	32	Not given.
Salem	Coimbatore...	66	1,780	Trichinopoly and Bangalore.	Not known.	
Tanjore				By Rail	63	1,222
Godavery				Kistna	Not given.	

Collectors do not distinguish traffic by road from that by rail; the abstract below, however, shows the total traffic by rail as obtained from the railway returns. The traffic thus obtained is in some cases a great deal in excess of the total traffic by rail.

The total quantity of raw cotton exported from this Presidency during the last twenty-five official years is shown below:—

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	CWTS.	RS.		CWTS.	RS.
1852-53	679,179	86,65,071	1865-66	1,071,734	484,16,348
1853-54	279,695	37,85,382	1866-67	217,566	94,37,365
1854-55	239,727	31,19,425	1867-68	440,055	123,65,500
1855-56	187,620	25,21,351	1868-69	839,560	213,99,830
1856-57	482,036	72,22,286	1869-70	611,379	191,25,050
1857-58	491,208	87,71,724	1870-71	378,099	106,04,132
1858-59	345,112	61,17,902	1871-72	672,581	172,05,095
1859-60	736,719	95,97,135	1872-73	606,298	158,76,737
1860-61	703,768	112,91,211	1873-74	548,418	128,33,988
1861-62	772,718	170,40,215	1874-75	717,755	162,68,783
1862-63	556,912	238,12,862	1875-76	739,420	165,28,491
1863-64	647,240	447,18,112	1876-77	481,071	107,40,374
1864-65	652,693	404,18,937			

11. No accurate and complete information is available with regard to the exports and imports of cotton by land. The subjoined statement, however, shows the particulars furnished by Collectors:—

Months.	FREIGHT TO EUROPE FROM MADRAS PER TON.			
	Via the Cape.		Via the Canal.	
	Fasli 1285.	Fasli 1286.	Fasli 1285.	Fasli 1286.
	£. s. d.	£. s. d.	£. s. d.	£. s. d.
July	2 5 7	2 7 6	3 0 0	3 0 0
August	2 7 11	2 8 2	3 1 8	3 0 0
September	2 10 0	2 9 5	3 5 0	3 5 0
October	2 13 4	2 10 0	3 5 0	3 10 0
November	2 12 6	2 10 0	3 0 0	3 10 0
December	2 10 0	2 10 0	3 1 3	4 5 0
January	2 10 0	2 10 0	3 0 0	4 5 0
February	2 10 0	2 10 0	3 0 0	4 5 0
March	2 8 8	2 10 0	3 7 6	4 5 0
April	2 7 6	2 10 0	2 15 0	4 5 0
May	2 10 0	2 10 0	2 15 0	4 5 0
June	1 17 6	2 10 0	2 15 0	4 5 0

14. The average prices per pound of cotton classed as "fair" in the English market for Faslis 1285 and 1286 are shown in the following table:—

Months.	TINNEVELLY.		WESTERN.		NORTHERN.		COCANADA.		COIMBATORE, &c.	
	1285.	1286.	1285.	1286.	1285.	1286.	1285.	1286.	1285.	1286.
	D.	D.	D.	D.	D.	D.	D.	D.	D.	D.
July	5	4	5	4	5	4	5	4	5	5
August	5	5	5	4	5	4	5	4	5	5
September	5	5	5	4	5	4	5	4	5	5
October	5	5	5	4	5	4	5	4	5	5
November	5	5	5	5	5	5	5	5	5	5
December	5	5	5	5	5	5	5	5	5	5
January	5	5	5	5	5	5	5	5	5	5
February	5	5	5	4	5	5	5	4	5	5
March	5	5	5	4	5	5	5	4	5	5
April	5	5	5	4	5	5	5	4	5	5
May	5	5	5	4	5	4	5	4	5	5
June	5	5	5	4	5	4	5	4	5	5
Total	60	59	60	61	60	54	60	61	61	60
Average	5	4 $\frac{1}{2}$	5	4 $\frac{1}{2}$	5	4 $\frac{1}{2}$	5	4 $\frac{1}{2}$	5 $\frac{1}{2}$	5

Bellary	31,944
Tinnevely	20,000
Kurnool	12,546
Kistna	18,000
Coimbatore	44,903
Madura	14,607
Cuddapah	34,000
Trichinopoly	34,427
Nellore	8,280
South Arcot	13,511
Godavery	57,646
Vizagapatam	26,525
Ganjam	9,300
Salem	18,000
Tanjore	13,497
North Arcot	Not given.
South Canara	2,172

Total ... 3,59,458

15. Weavers.—The total number of weavers in the several districts is reported by Collectors as 359,458 as shown in the margin. This is nearly the same as that given in the Census returns of 1871 but much below that reported in Fasli 1285. The difference in some of the districts is stated to be owing to the inclusion in last year's return of women and children also instead of males alone. The weaving population is generally poor and it was reduced to extreme poverty during the year on account of famine. Many entered on relief works opened by Government to obtain a living and some were granted advances by Government to enable them to carry on their trade. The materials with which they work are partly English

and partly country yarn, the latter being largely used for the manufacture of the coarse cloths worn by the lower orders of the native community.

16. *Cotton Mills.*—There are no regularly established cotton mills in any of the districts except Madras, where the two mills referred to in paragraph 19 of last year's report were at work during the year. A third mill has been started by the Buckingham Mill Company, but had not commenced working during the year. The two mills at work are stated to have absorbed 2,142,902 lbs. of cotton which was chiefly purchased in Madras. The establishment of a mill at Kurnool was also attempted by a Sowcar of the place, but he was not successful owing to the prevalence of famine and the failure of the cotton crop. A machine consisting of hand-looms attached to the industrial branch of the Basel Mission establishment at Mangalore was also at work during the year.

17. There are no special impediments to the cultivation of and trade in cotton, but the cultivators and the people in general are not inclined to resort to any improved methods of cultivation and manufacture, but continue to carry on their operations according to the long established usage of the country.

18. The following is an extract from Mr. Robertson's report on certain experiments in the cultivation of cotton on the Government Farm at Sydapet:—

"The season prevented the usual sowings in September from succeeding, and it was not until nearly the end of November that any crop that was sown grew well; a plot sown then has thriven wonderfully, and aided by the deep tillage of the land on which it is growing has been able to withstand the drought, yielding fairly though of course not so heavily as it would in a good season; as the season is not completed full details of the crop will be given in the next report.

"A point which should have a most material influence on the selection of the seed time for cotton has until now received no attention; it is the period of the year during which the yield of lint from the cotton plants is greatest. According to this point in the statement given below the results of the different ginnings of the cotton gathered during the season of 1876 are recorded:—

Date of Ginning.	Amount Ginned.	Amount of Lint.	Percentage of Lint.	Details of Gatherings.
	LBS.	LBS.		
28th February 1876.	445.5	154	34.54	128 lbs. gathered before 1st January. 102.5 " do. do. in do. 115 " do. do. in February. 53 " do. do. do. 251 " do. do. in March. 298 " do. do. in April. 32 " do. do. do. 169 " do. do. in May.
12th May "	602	220	36.55	Gathered between May 16th and June 10th. Do. after June 10th.
17th " "	181	58	32.04	
16th June "	146	48	32.88	
18th July "	372	98	26.34	
4th August "	246	40	17.07	
16th " "	212	59.5	28.07	Do. after July 18th.
24th " "	197.5	52	26.33	
1st September "	187	58	31.02	Do. after August 24th.
25th " "	72	21.5	29.86	
Total ...	2,661.0	809.0	30.40	

"It will be noticed that there is a great variation in the yield of lint at different times of the year, the cotton gathered during the earlier months yielding a much higher percentage than that picked later on. Thus the percentage of lint in the cotton gathered before June 10th was 34.92, and in that which was gathered between June 10th and the end of August it was only 24.28, or about 10½ per cent. less. The yield of cotton in seed during the first of the above-named periods was 74.75 per cent. of the total gathering. The gatherings in September show a very high percentage yield of lint, but as it was an unseasonably dry month, especially after the first week, the outturn in it must be taken as exceptional.

"Looking at the rain-fall of the four months—May, June, July, and August—it will be noticed that one inch less than the average of the past sixty years, or more than three inches less than that of the past ten years was registered; the chief difference being in the fall during the month of May so that the long dry season was rather more protracted than usual; no rain fell from December 17th of 1875 until April 30th, 1876, when after a drought of about eighteen weeks .81 inch fell, followed by four slight falls before June 10th, amounting in all to 1.30 inches, which falls, considering the temperature of the air and the dryness of the soil at the time when they fell, could have little permanent effect.

"From the results of the ginnings recorded it appears that after July it would generally be undesirable to keep cotton on the land; for not only is the outturn shown to be chiefly given in the early months of the year, and the percentage of lint produced after June is low, but also during the showery weather of July and August it is most difficult to keep down the weeds, and in all probability, if the crop is kept on the land for a longer period in the hope of obtaining rather more yield, the succeeding crop will be endangered, and great expense will be necessitated to clean the land again.

"It would be better to sow the cotton crop at an earlier date than has been customary; instead of September, August should be the month chosen; by this means cotton picking might begin at the end of December instead of the end of January or the beginning of February, which has been until now the usual season. By this means a longer gathering season during the early months of the year, when the percentage of lint is greater, the staple longer, the sample usually much cleaner and not stained with oil, would be obtained, and the temptation to keep the crop on the ground late in hopes of obtaining a further gathering would be lessened."

(A true Extract.)

(Signed) C. A. GALTON,
Acting Secretary.

No. 41.

ORDER THEREON, 3rd August 1878, No. 1,229.

Miscellaneous.

ORDERED to be forwarded to the
Government of India.

(True Extract.)

(Signed) C. G. MASTER,
Secretary to Government.

To the Board of Revenue.

Exd. A. S. Rodgers.

1229
6

No. 1,863.

PROCEEDINGS OF THE BOARD OF REVENUE, dated 5th July 1878.

THE Board resolve to submit to Government the following report on the cultivation of and trade in cotton for Fasli 1286.

2. *Season.*—The principal cotton-producing districts in this Presidency are Bellary, Tinnevely, Kurnool, Kistna, Coimbatore, Madura and Cuddapah, and in these except in parts of Kistna, the season was most unfavorable for cotton as for other crops. There was a large diminution in the area of cultivation owing to deficiency of rainfall during the cultivation season, and the crop failed altogether in many places. The yield, where there was any, was deficient in quality as well as quantity.

3. *Area under Cultivation.*—About one million of acres or one-seventeenth of the total area cultivated in the Government Taluqs of this Presidency is usually under cotton, but in Fasli 1286 the area under cotton in Government Taluqs was only 615,000 acres. The decrease in cotton cultivation is a great deal more than proportionate to that in the total extent of cultivation, which is owing to the season being peculiarly bad in the cotton-growing districts. The subjoined statement shows the particulars of cultivation in each district:—

Districts.	Fasli 1284.	Fasli 1285.	Fasli 1286.	Percentage of Increase or Decrease in Fasli 1286 compared with the Cultivation of Fasli 1285.
	ACRES.	ACRES.	ACRES.	
1. Bellary	337,550	385,596	44,713	— 88
2. Tinnevely	284,622	281,569	213,492	— 24
3. Kurnool	202,613	244,130	85,026	— 65
4. Kistna	226,414	229,583	211,619	— 8
5. Coimbatore	193,464	184,520	140,393	— 24
6. Madura	97,412	95,429	73,937	— 22
7. Cuddapah	75,952	85,701	34,286	— 59
8. Trichinopoly	49,540	43,186	37,228	— 14
9. Nellore	20,594	22,303	7,708	— 65
10. South Arcot	18,669	16,442	9,407	— 43
11. Godavery	17,026	14,265	18,873	+ 32
12. Vizagapatam	16,653	12,900	20,303	+ 57
13. Ganjam	11,085	12,675	13,288	+ 5
14. Salem	20,999	12,630	11,507	— 9
15. Tanjore	4,391	4,060	3,965	— 2
16. North Arcot	210	263	214	— 18
17. South Canara	164	134	153	+ 14
18. Chingleput	5	3	3	...
Total ...	1,577,363	1,645,389	926,115	— 43.7
Government Tracts	1,008,869	1,045,406	614,850	...
Inam Tracts	357,145	399,095	160,640	...
Zemindari Tracts	211,349	200,888	150,625	...

4. *Species cultivated.*—The cotton grown during the year in all the districts except Coimbatore was indigenous. In the latter acclimatized Bourbon and American species were also cultivated. Experimental cultivation of New Orleans cotton was

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attempted in the Namkal Taluq of the Salem District, but the result was as in the previous year a failure. In the indigenous cotton under cultivation there are several varieties. Some are of a pure white and some of a dull white color. Some have large leaves and pods of greater size than others, and the fibres of some are supposed to be stronger and the cloth made of them to wear longer than that made of others. The Collector of Cuddapah considers it highly probable that the seed cultivated in his district was originally brought from the cotton-growing districts of Bombay.

5. The Collector of Trichinopoly desires to make an experiment with the seeds of the best American cotton, and requests that if the Board approve, the Superintendent of the Government Farms at Sydapet may be requested to send a small supply. Such requisitions should be made separately and not mixed up in annual reports thereon. The Superintendent of Government Farms will, however, be requested to supply the Collector with a supply of the best seed available, and the Collector will report how he proposes to conduct the experiment.

6. *Outturn of cleaned Cotton and Quality.*—The aggregate outturn of cleaned cotton during the year is estimated by Collectors, as shown below, at 183,463 cwts. against 461,195 in Fasli 1285. The decrease is 60 per cent. on the whole. Much reliance cannot, however, be placed on these estimates. The actual exports of cotton in the last three years have far exceeded the estimates of outturn in these years which would seem to be impossible if the estimates were accurate:—

Districts.	FASLI 1285.		FASLI 1286.		Percentage of Increase or Decrease in Fasli 1286 as compared with the Outturn of Fasli 1285.
	Quantity.	Value.	Quantity.	Value.	
	CWTS.	RS.	CWTS.	RS.	
1. Bellary	100,000	18,41,740	6,453	40,878	— 93
2. Tinnevely	69,843	16,68,890	40,170	8,57,848	— 42
3. Kurnool	66,378	11,68,869	1,026	41,562	— 98
4. Kistna	76,652	11,78,852	57,626	11,13,243	— 25
5. Coimbatore	63,633	13,47,077	14,272	3,57,181	— 77
6. Madura	27,038	6,02,074	7,685	1,71,788	— 71
7. Cuddapah	12,642	4,23,946	7,347	1,71,430	— 42
8. Trichinopoly	9,275	Not given.	9,620	Not given.	+ 4
9. Nellore	5,600	1,24,450	3,448	7,125	— 38
10. South Arcot	1,939	32,518	505	14,145	— 74
11. Godavery	9,287	1,89,303	12,638	3,08,579	+ 36
12. Vizagapatam	6,231	1,20,318	10,332	2,39,407	+ 66
13. Ganjam	3,968	1,25,481	5,055	1,53,406	+ 27
14. Salem	5,155	1,52,605	4,395	1,31,877	— 15
15. Tanjore	3,218	25,166	2,779	23,927	— 14
16. North Arcot	55	1,495	...	...	— 100
17. South Canara	281	6,625	112	3,356	— 60
Total ...	461,195	90,09,409	183,463	36,35,752	— 60

7. The estimates of yield per acre given by Collectors are not reliable. In some cases they have been obtained by dividing the total estimated outturn by the number of acres cultivated whether any crop was obtained therefrom or not, while in others the calculation has been properly made by dividing the outturn by the area on which a crop was actually raised. The subjoined statement shows the yield per

acre obtained by dividing the whole of the estimated yield by the area cultivated, and the figures given by Collectors:—

Districts.	Fasli 1284.	Fasli 1285.	FASLI 1286.		Remarks.
			Yield as given by Collectors.	Yield per Acre obtained by dividing the Total Outturn by the Area cultivated.	
	LBS.	LBS.	LBS.		
1. Bellary	34	29	18	17	
2. Tinnevely	98	28 to 112	40	21	
3. Kurnool	32	30	3	1.4	
4. Kistna	40	37	19	31	
5. Coimbatore	38	29	22	11.4	
6. Madura	37	35	12½	12	
7. Cuddapah	31	25	25	24	
8. Trichinopoly	35	24	29	29	
9. Nellore	31	28	25	51	
10. South Arcot	17	13	6	6	
11. Godavery	180	218½	225	75	Uncleaned. /
12. Vizagapatam	57	54	57	52	
13. Ganjam	56	112	168	43	
14. Salem	49	45	42	43	
15. Tanjore	22	23	162	78	
16. North Arcot	25	24	...	...	
17. South Canara	158	234	84	82	
18. Chingleput	...	...	...	...	
19. Madras	...	...	...	...	

In future Collectors are requested to show in their reports the extent of land which though cultivated did not yield any crop separately from the total area under cultivation and also to calculate the average produce only on the extent which actually yielded any outturn during the year. Endeavors should be made to make the estimates as reliable as possible.

8. *Cost of Cultivation.*—The expenses of cultivation in the several districts as reported by Collectors are thrown together below:—

Districts.	Cost.			Remarks.		
	RS.	A.	P.	RS.	A.	P.
1. Bellary	5	0	0	...	...	...
2. Tinnevely	5	12	0	to 10	0	0
3. Kurnool	0	8	0	to 3	0	0
4. Kistna	3	4	0	...	...	...
5. Coimbatore	7	0	0	...	...	...
6. Madura	6	4	0	...	...	...
7. Cuddapah	5	0	0	...	...	...
8. Trichinopoly	10	0	0	to 12	0	0
9. Nellore	0	12	0	to 12	0	0
10. South Arcot	4	0	0	to 12	12	0
11. Godavery	6	8	0	...	...	...
12. Vizagapatam	5	0	0	...	...	...
13. Ganjam	3	0	0	to 10	0	0
14. Salem	5	8	0	to 11	8	0
15. Tanjore	3	0	0	to 12	0	0
16. South Canara	Not known.			...	...	...
17. Chingleput	...	...	...	...	...	...

The rates given for the several districts vary from Annas 8, the minimum in Kurnool, to Rupees 12-12-0, the maximum in South Arcot. Collectors do not specify how they have calculated the cost. No doubt the cost of cultivation will vary greatly according to the nature of the soil, facilities for cultivation, &c., but the Board doubt whether it will differ so widely. In future reports Collectors are requested to show the component items of the estimate of the cost to enable the Board to see how far the estimate is reliable.

9. *Average ruling prices of Cotton retained for local consumption.*—The information furnished by Collectors under this head in the reports under review is shown in the subjoined statement in comparison with particulars deduced from the monthly returns received by the Board. The prices obtained from the latter differ widely from the former in Cuddapah, Bellary, Tanjore and South Canara. The Collectors concerned are requested to explain the variations. The rate of Rupees 81 given by the Collector of Trichinopoly is that which prevailed during the first six months of the year. Cotton was sold in this district at double the rate during January, February and March; subsequently the price fell, and at the close of the fasli cotton was sold at Rupees 112 per candy:—

Districts.	Average deduced from the monthly price returns per candy of 500 lbs.	As given in the cotton report per candy of 500 lbs.	Remarks.
1. Bellary	Rs. 96	Rs. 80	Double this rate during January, February and March.
2. Tinnevelly	107	107	
3. Kurnool	107	113	
4. Kistna	93	100	
5. Coimbatore	113	115	
6. Madura	101	100	
7. Cuddapah	77 to 148	100	
8. Trichinopoly	104	81	
9. Nellore	126	90 to 132	
10. South Arcot	128	125	
11. Godavery	109	109	
12. Vizagapatam	118	114	
13. Ganjam	131	131	
14. Salem	122	120	
15. Tanjore	116	94	
16. North Arcot	110	Not given.	
17. South Canara	119	134	
18. Madras	93 to 110	102	

10. *Exports and Imports.*—The total quantity of cotton exported from this Presidency during the year was 370,378 cwts. against 704,068 cwts. in Fasli 1285.

* Fasli 1285	Cwts. 698
" 1286	6,352

	Quantity.	Value.
	cwts.	Rs.
Fort St. George	199,014	4,457,940
Godavery	63,528	1,303,272
Kistna	4,714	1,05,600
Tanjore	225	4,520
Tinnevelly	102,686	23,81,986
South Canara	7	142
Malabar	204	6,450
Total	370,378	82,59,910

The decrease is chiefly under Exports to the United Kingdom, amounting to 236,919 cwts. or 71 per cent. of the gross decrease. The imports,* however limited as they are, show a considerable increase. These results are no doubt due to the diminished outturn of the year. The districts from which cotton was exported are shown in the margin, and the subjoined statement shows the countries to which the cotton was exported together with the quantities taken to each in comparison with similar particulars for Fasli 1285:—

Districts.	Exports.		Imports.		
	To what places.	Quantity.	Value.	From what places.	Quantity. Value.
Bellary	Bombay, Madras, Bangalore.	cwt. 91,000	Rs. Not given.	Kurnool and Nizam's Territories.	cwt. Not given. Rs.
Kurnool	...	...	...	Kistna	147 . Not given.
Kistna	Godavery and Madras.	84,893	16,97,900	Nizam's Territories.	Not given.
Coimbatore	Madras, Quilon, Trichinopoly, and Malabar.	8,567	1,95,301	...	...
Madura	Tinnevelly	5,520	1,25,945	Kurnool and Bellary.	781 17,500
Cuddapah	Nellore, Kistna, and Madras.	1,563	20,000	...	...
Nellore	...	...	...	Cuddapah and Kistna.	3,469 Not given.
Vizagapatam	...	...	...	Kistna, Godavery, and Central Provinces.	7,840 1,09,252
Ganjam	...	...	...	Bengal	82 Not given.
Salem	Coimbatore	66	1,780	Trichinopoly and Bangalore.	Not known.
Tanjore	...	...	...	By Rail	53 1,222
Godavery	...	...	...	Kistna	Not given.

Collectors do not distinguish traffic by road from that by rail; the abstract below, however, shows the total traffic by rail as obtained from the railway returns. The traffic thus obtained is in some cases a great deal in excess of the total traffic by rail and road given by Collectors. This shows that the figures given by Collectors are not reliable.

Districts.	Exported from	Imported into
Bellary	cwt. 188,363	cwt. 33,257
Tinnevelly	492	1,818
Coimbatore	10,790	51
Madura	1,302	166
Cuddapah	223	26
Trichinopoly	173	36
South Arcot	16	21
Tanjore	10	24
North Arcot	15	75
Chingleput	...	199
Malabar	21	2
Madras	1,227	199,348
Nizam's Territory	32,221	55
Other Stations	76,556	76,330
Total	311,408	311,408

12. *The manner in which Cotton is brought down to the Port of Shipment.*—From Bellary and Kurnool cotton is sent chiefly to Madras in pressed bales. From Kistna it is brought first to Jaggiapet where it is pressed in a hand-press and brought down on carts to Bezvada, whence it is sent by canal either to Cocanada or one of the ports of the district. From Madura and Tinnevelly cotton is generally carried by rail to Taticorin or Madras in unpressed bales. From Coimbatore and Salem it is transported both by rail and road; from the latter always in unpressed bales, from the former sometimes in fully pressed and at other times in unpressed bales.

13. *Freight.*—The annexed table shows the rates per ton prevailing in Fasli 1286 in comparison with those of Fasli 1285:—

	FASLI 1285.		FASLI 1286.	
	Quantity.	Value.	Quantity.	Value.
<i>Exports.</i>	CWTS.	RS.	CWTS.	RS.
To Foreign countries—				
To United Kingdom	475,122	106,59,522	238,203	53,47,381
„ France	76,733	16,35,106	61,139	12,80,999
„ Austria, Trieste	26,632	6,08,666	6,831	1,55,171
„ Italy. { Venice	26,038	5,44,731	6,295	1,45,319
„ { Genoa	9,077	2,23,473	3,964	92,040
„ Holland	6,482	1,45,200	10,355	2,36,999
„ Ceylon	1,998	45,203	8,916	2,16,498
„ China, Hong Kong	50,837	11,26,293	21,398	4,85,826
Total Exports to Foreign countries...	673,499	149,98,194	357,101	79,60,233
To other Presidencies and Indian Ports not British.				
To Calcutta	30,230	6,78,593	10,980	2,45,925
„ Bombay	32	660	204	6,450
„ Other Ports	26	410	7	142
„ Pondicherry	281	6,300	2,086	47,160
Total Exports to other Presidencies and Indian Ports not British in this Presidency	30,569	6,85,963	13,277	2,99,677
Grand Total...	704,068	156,84,157	370,378	82,59,910

The total quantity of raw cotton exported from this Presidency during the last twenty-five official years is shown below:—

Years.	Quantity.	Value.	Years.	Quantity.	Value.
	CWTS.	RS.		CWTS.	RS.
1852-53	679,179	86,65,071	1865-66	1,071,734	484,16,348
1853-54	279,695	37,85,382	1866-67	217,566	94,37,365
1854-55	239,727	31,19,425	1867-68	440,055	123,65,500
1855-56	187,620	25,21,351	1868-69	839,560	213,99,830
1856-57	482,036	72,22,286	1869-70	611,379	191,25,050
1857-58	491,208	87,71,724	1870-71	378,099	106,04,132
1858-59	345,112	61,17,902	1871-72	672,581	172,05,095
1859-60	736,719	95,97,135	1872-73	606,298	158,76,737
1860-61	703,768	112,91,211	1873-74	548,418	128,33,988
1861-62	772,718	170,40,215	1874-75	717,755	162,68,783
1862-63	556,912	238,12,882	1875-76	733,420	165,28,491
1863-64	647,240	447,18,112	1876-77	481,071	107,40,374
1864-65	652,693	404,18,937			

11. No accurate and complete information is available with regard to the exports and imports of cotton by land. The subjoined statement, however, shows the particulars furnished by Collectors:—

Months.	FREIGHT TO EUROPE FROM MADRAS PER TON.							
	Via the Cape.				Via the Canal.			
	Fasli 1285.		Fasli 1286.		Fasli 1285.		Fasli 1286.	
	£.	s. d.	£.	s. d.	£.	s. d.	£.	s. d.
July	2	5 7	2	8 2	3	0 0	3	0 0
August	2	7 11	2	9 5	3	5 0	3	5 0
September	2	10 0	2	10 0	3	5 0	3	10 0
October	2	13 4	2	10 0	3	0 0	3	10 0
November	2	12 6	2	10 0	3	1 3	4	5 0
December	2	10 0	2	10 0	3	0 0	4	5 0
January	2	10 0	2	10 0	3	0 0	4	5 0
February	2	10 0	2	10 0	3	7 6	4	5 0
March	2	8 8	2	10 0	2	15 0	4	5 0
April	2	7 6	2	10 0	2	15 0	4	5 0
May	2	10 0	2	10 0	2	15 0	4	5 0
June	1	17 6	2	10 0	2	15 0	4	5 0

14. The average prices per pound of cotton classed as "fair" in the English market for Faslis 1285 and 1286 are shown in the following table:—

Months.	TINNEVELLY.		WESTERN.		NORTHERN.		COCANADA.		COIMBATORE, &c.	
	1285.	1286.	1285.	1286.	1285.	1286.	1285.	1286.	1285.	1286.
	D.	D.	D.	D.	D.	D.	D.	D.	D.	D.
July	5	5	5	4	5	4	5	4	5	5
August	5	5	5	4	5	4	5	4	5	5
September	5	5	5	4	5	4	5	4	5	5
October	5	5	5	5	5	5	5	5	5	5
November	5	5	5	5	5	5	5	5	5	5
December	5	5	5	5	5	5	5	5	5	5
January	5	5	5	4	5	5	5	4	5	5
February	5	5	5	4	5	5	5	4	5	5
March	5	5	5	4	5	5	5	4	5	5
April	5	5	5	4	5	4	5	4	5	5
May	5	5	5	4	5	4	5	4	5	5
June	5	5	5	4	5	4	5	4	5	5
Total ...	60	59	60	51	60	54	60	51	61	60
Average ...	5	4½	5	4½	5	4½	5	4½	5½	5

Bellary	31,944
Tinnevely	20,000
Kurnool	12,546
Kistna	18,000
Coimbatore	44,903
Madura	14,607
Cuddapah	34,000
Trichinopoly	34,427
Nellore	8,380
South Arcot	13,511
Godavery	57,646
Vizagapatam	26,525
Ganjam	9,300
Salem	18,000
Tanjore	13,497
North Arcot	Not given.
South Canara	2,172

Total ... 3,59,458

15. *Weavers.*—The total number of weavers in the several districts is reported by Collectors as 359,458 as shown in the margin. This is nearly the same as that given in the Census returns of 1871 but much below that reported in Fasli 1285. The difference in some of the districts is stated to be owing to the inclusion in last year's return of women and children also instead of males alone. The weaving population is generally poor and it was reduced to extreme poverty during the year on account of famine. Many entered on relief works opened by Government to obtain a living and some were granted advances by Government to enable them to carry on their trade. The materials with which they work are partly English

and partly country yarn, the latter being largely used for the manufacture of the coarse cloths worn by the lower orders of the native community.

16. *Cotton Mills.*—There are no regularly established cotton mills in any of the districts except Madras, where the two mills referred to in paragraph 19 of last year's report were at work during the year. A third mill has been started by the Buckingham Mill Company, but had not commenced working during the year. The two mills at work are stated to have absorbed 2,112,902 lbs. of cotton which was chiefly purchased in Madras. The establishment of a mill at Kurnool was also attempted by a Sowcar of the place, but he was not successful owing to the prevalence of famine and the failure of the cotton crop. A machine consisting of hand-looms attached to the industrial branch of the Basel Mission establishment at Mangalore was also at work during the year.

17. There are no special impediments to the cultivation of and trade in cotton, but the cultivators and the people in general are not inclined to resort to any improved methods of cultivation and manufacture, but continue to carry on their operations according to the long established usage of the country.

18. The following is an extract from Mr. Robertson's report on certain experiments in the cultivation of cotton on the Government Farm at Sydapet:—

"The season prevented the usual sowings in September from succeeding, and it was not until nearly the end of November that any crop that was sown grew well; a plot sown then has thriven wonderfully, and aided by the deep tillage of the land on which it is growing has been able to withstand the drought, yielding fairly though of course not so heavily as it would in a good season; as the season is not completed full details of the crop will be given in the next report.

"A point which should have a most material influence on the selection of the seed time for cotton has until now received no attention; it is the period of the year during which the yield of lint from the cotton plant is greatest. As bearing on this point in the statement given below the results of the different ginnings of the cotton gathered during the season of 1876 are recorded:—

Date of Ginning.	Amount Ginned.	Amount of Lint.	Percentage of Lint.	Details of Gatherings.
	LBS.	LBS.		
28th February 1876,	445.5	154	34.54	128 lbs. gathered before 1st January. 102.5 " do. do. in do. 115 " do. do. in February. 53 " do. do. do.
12th May "	602	220	36.55	251 " do. do. in March. 298 " do. do. in April. 32 " do. do. do.
17th " "	181	58	32.04	169 " do. do. in May.
16th June "	146	48	32.88	Gathered between May 16th and June 10th.
18th July "	372	98	26.34	Do. after June 10th.
4th August "	246	40	17.07	
16th " "	212	59.5	28.07	Do. after July 18th.
24th " "	197.5	52	26.33	
1st September "	187	58	31.02	
25th " "	72	21.5	29.86	Do. after August 24th.
Total ...	2,661.0	809.0	30.40	

"It will be noticed that there is a great variation in the yield of lint at different times of the year, the cotton gathered during the earlier months yielding a much higher percentage than that picked later on. Thus the percentage of lint in the cotton gathered before June 10th was 34.92, and in that which was gathered between June 10th and the end of August it was only 24.28, or about 10½ per cent. less. The yield of cotton in seed during the first of the above-named periods was 74.75 per cent. of the total gathering. The gatherings in September show a very high percentage yield of lint, but as it was an unseasonably dry month, especially after the first week, the outturn in it must be taken as exceptional.

"Looking at the rain-fall of the four months—May, June, July, and August—it will be noticed that one inch less than the average of the past sixty years, or more than three inches less than that of the past ten years was registered; the chief difference being in the fall during the month of May so that the long dry season was rather more protracted than usual; no rain fell from December 17th of 1875 until April 30th, 1876, when after a drought of about eighteen weeks .81 inch fell, followed by four slight falls before June 10th, amounting in all to 1.30 inches, which falls, considering the temperature of the air and the dryness of the soil at the time when they fell, could have little permanent effect.

"From the results of the ginnings recorded it appears that after July it would generally be undesirable to keep cotton on the land; for not only is the outturn shown to be chiefly given in the early months of the year, and the percentage of lint produced after June is low, but also during the showery weather of July and August it is most difficult to keep down the weeds, and in all probability, if the crop is kept on the land for a longer period in the hope of obtaining rather more yield, the succeeding crop will be endangered, and great expense will be necessitated to clean the land again.

"It would be better to sow the cotton crop at an earlier date than has been customary; instead of September, August should be the month chosen; by this means cotton picking might begin at the end of December instead of the end of January or the beginning of February, which has been until now the usual season. By this means a longer gathering season during the early months of the year, when the percentage of lint is greater, the staple longer, the sample usually much cleaner and not stained with oil, would be obtained, and the temptation to keep the crop on the ground late in hopes of obtaining a further gathering would be lessened."

(A true Extract.)

Acting Secretary.

To the Secretary to Government, Revenue Department.
" all Collectors.
" Superintendent of Government Farms.

Exd. A. Grubert. and J. Tulloch.

14. To the Council of the Government of India

40-41

Order to be forwarded
to the Govt of India
On 12.29

Board of Revenue,
MADRAS.

1878.

Revenue Dept
No 3260

PROCEEDINGS, 5TH JULY 1878, No. 1,863.

(Type 24/11)s

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Cotton.—Submitting to Government report on
cultivation of and trade in— for Pash 1286.

On 12.29. 30 August 1878

W. M. A. Carter