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MANUFACTURING INDUSTRIES
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NO. 21. BUTTER, CHEESE, AND CONDENSED, CONCENTRATED, ETC. MILK.

Prepared Under Instructions from
THE RIGHT HONORABLE THE TREASURER,

by

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PREFACE

1. GENERAL: The Bulletins in the series for 1950-51 are listed on the back of the cover of this Bulletin and incorporate the same range of industries as the 1949-50 series with the following variations:-

- (a) The Metal and Machinery etc. Industries have been re grouped and are presented as - Basic Metal Industries (Bulletin No. 7) and Metal Fabricating Industries (Bulletin No. 8).
- (b) Single Bulletins are now being issued to cover:-
 - (i) The Clothing Industry, to include Hosiery and Knitted Goods (Bulletin No. 15).
 - (ii) The Jam, Fruit and Vegetable Canning, and the Pickles, Sauces and Condiments Industries (Bulletin No. 19).
- (c) Many of the Bulletins have been renumbered.

Where a number of Industries are combined in one Bulletin the introductory paragraph on Page 2 specifies the industries so included.

2. CLASSIFICATION OF FACTORIES: For purposes of industry classification, factories in Australia are classified according to the nature of their product. Where two or more distinct types of industrial activity are carried on in one establishment, a separate return is obtained, wherever practicable, for each activity in order to allow classification on this basis. In cases where this is not practicable, factories are classified according to predominant activity and these cases are encountered most frequently in the Metal Trades, (e.g. General Engineering firms also producing Agricultural Implements or Stoves etc.), and to a lesser degree in factories concerned with Skins, Leather, Clothing and Wood products.

Each of the summaries in the "Manufacturing Industries" series, relates as far as possible to the operations of factories classified to the industry specified. Sometimes articles normally produced in the industry covered by a particular Bulletin are also produced, as subsidiary production, in other industries, and, wherever possible, quantity tables have been extended to show details of production separately for the industry under review and the total in all industries.

3. BASIS OF THE STATISTICS: The scope of the factory statistics is fully explained in the annual Production Bulletin, Part I - Secondary Industries.

Briefly, a "factory" is taken to be a manufacturing establishment in which four or more persons are employed or in which power other than hand is used.

All persons employed in the manufacturing activities of the factory are counted as factory employees. The figures relating to employment, therefore, exclude all those engaged in selling and distribution, such as salesmen, travellers, collectors, carters engaged solely on outward delivery of manufactured goods, and retailing storemen. The figures do include, however, proprietors who work in their own factories as well as "out-workers".

The value of output is the selling value at the factory of goods made or processed during the year, including by-products. In addition it includes the value of other work done, such as repair work, assembling and making-up for customers.

The value of production is the value added to raw materials by the process of manufacture. It is calculated by deducting from the value of factory output the value (at the factory) of the materials used, containers and packing, power, fuel and light used, tools replaced and materials used in repairs to plant (but not depreciation charges). The value of production is the source from which such items as wages, interest, depreciation, profits, taxation, advertising and other sundry charges are met. As full details of costs of production are not collected, the amount of profit resulting from factory operations cannot be ascertained from the figures contained herein.

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ACTING COMMONWEALTH STATISTICIAN

MANUFACTURING INDUSTRIES, AUSTRALIA : 1950-51

BUTTER, CHEESE AND CONDENSED, CONCENTRATED, ETC. MILK

1. SUMMARY OF STATISTICS: The following table furnishes a summary of the principal statistics of the factories engaged in the manufacture of Butter, Cheese and Condensed, Concentrated, etc, Milk, for the years 1938-39, 1945-46 and 1948-49 to 1950-51.

TABLE I : BUTTER, CHEESE AND CONDENSED, CONCENTRATED, ETC. MILK : AUSTRALIA

Year	Number of Factories	Persons Employed (a)	Salaries and Wages Paid (b)	Power, Fuel and Light, etc. Used (c)	Value of Materials etc. Used (d)	Value of Production (e)	Value of Output (f)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	No.	No.	£'000	£'000	£'000	£'000	£'000
1938-39	523	6,851	1,570	390	29,162	3,543	33,095
1945-46	462	8,896	2,737	756	34,991	5,024	40,771
1948-49	434	10,016	4,237	1,070	52,837	7,335	61,242
1949-50	428	10,469	4,941	1,340	60,762	8,099	70,201
1950-51	409	10,707	6,020	1,594	61,581	10,790	73,875

(a) Average over whole year, includes Working Proprietors. (b) Excludes amounts drawn by Working Proprietors. (c) Includes also value of containers, packing, etc., replacements of tools and repairs to plant. (d) Value of Production equals column (7) less total of columns (4) and (5).

In the following table particulars of the Industry are given for each State during the year 1950-51.

TABLE II : BUTTER, CHEESE AND CONDENSED, CONCENTRATED, ETC. MILK : STATES

1950-51

Particulars	N.S.W.	VIC.	Q'LD.	S.A.	W.A.	T.S.	AUSTRALIA
	£.	£.	£.	£.	£.	£.	£.
Number of Factories	90	142	93	44	16	24	409
Number Employed (a) -							
Males	1,967	4,432	1,440	772	280	281	9,172
Females	292	752	215	119	63	94	1,535
Total	2,259	5,184	1,655	891	343	375	10,707
Value of -							
Salaries and Wages Paid (b)	1,278,392	3,080,981	822,779	462,670	177,774	197,828	6,019,824
Power, Fuel & Light etc. Used	383,796	764,430	167,965	97,853	48,296	44,612	1,503,952
Materials etc. Used	10,978,198	25,762,997	17,007,926	3,693,235	2,075,515	2,062,941	61,580,812
Production (c)	1,977,702	5,668,515	1,372,996	782,724	388,830	599,507	10,790,274
Output	13,339,696	32,198,942	18,548,887	4,570,812	2,512,641	2,707,060	73,875,038
Land and Buildings	1,372,775	2,367,090	960,179	360,305	130,555	208,861	5,399,723
Plant and Machinery	1,958,280	3,126,754	1,125,344	360,259	205,912	237,659	7,014,208
H.P. of Engines Ordinarily in Use	21,505	25,971	18,263	5,214	1,552	1,694	71,199

(a) Average over whole year, includes Working Proprietors. (b) Excludes amounts drawn by Working Proprietors. (c) See note (d) to Table I.

2. AVERAGE SALARIES, OUTPUT AND PRODUCTION: Particulars of the average salary and wage paid, together with the average value of output and production per person engaged and the ratio of salaries and wages to the value of production are shown in the following table for the years 1938-39, 1945-46 and 1948-49 to 1950-51.

TABLE III : AVERAGE SALARIES AND WAGES PAID, OUTPUT ETC. PER EMPLOYEE : AUSTRALIA

Year	Salaries and Wages per Employee	Value of Output per Person Engaged (b)	Value of Production per Person Engaged (b)	Ratio of Salaries and Wages to Value of Production
	(a)	(b)	(b)	
	£.	£.	£.	%.
1938-39	231	4,831	517	44.29
1945-46	309	4,583	965	54.48
1948-49	425	6,114	732	57.77
1949-50	473	6,706	774	61.01
1950-51	564	6,900	1,068	55.79

(a) Excludes Working Proprietors and amounts drawn by them.

(b) Includes Working Proprietors.

3. MATERIALS USED AND ARTICLES PRODUCED: In the following table details are given of the quantity and value of milk processed and the principal articles produced therefrom in Butter, Cheese and Condensed, Concentrated, etc. Milk Factories for the year 1950-51.

In the case of a few articles there is some production in establishments other than those classified for statistical purposes as Butter, Cheese etc., and where this occurs, it is indicated by footnote.

TABLE IV : PRINCIPAL MATERIALS USED AND ARTICLES PRODUCED : AUSTRALIA, 1950-51.

Particulars	Unit of Quantity	Quantity	Value (£)
<u>Materials Used:</u>			
Whole Milk used in Manufacture of -			
Butter (a)	gal.	730,834,064	35,672,365
Cheese	"	96,462,201	5,111,643
Condensed, Dried and Other Milk Products (a)(b)	"	90,031,107	6,628,266
Total Whole Milk Used	"	917,327,372	47,412,274
Skim Milk - Derived in own Factory	"	9,327,221	(e)
Purchased	"	15,593,091	100,011
Butter Milk - Derived in own Factory	"	3,582,324	(e)
Salt	awt	41,999	26,111
Sugar	ton	21,732	931,022
Cheddar Cheese for Processing in Cheese Factories (d)	lb.	28,971,805	(e)
<u>Articles Produced:</u>			
Butter	ton	199,641	40,825,983
Cheese (Green Weight)	"	44,367	6,654,496
Processed Cheese	"	19,556	3,212,282
Condensed Milk (Sweetened and Unsweetened)	"	(e) 90,597	(e) 5,681,218
Concentrated Whole Milk	"	18,351	1,203,898
Powdered Milk -	"		
Full Cream - Spray	"	13,879	3,141,227
Roller	"	3,715	830,421
Skim - Spray	"	2,739	247,018
Roller	"	(e) 3,832	(e) 291,428
Butter Milk and Whey	"	3,192	124,096
Infants' and Invalids' Foods (incl. Malted Milk and Milk Sugar)	"	11,913	3,658,675
Cas. in	"	(e) 4,529	(e) 658,455
<u>Other Products -</u>			
Butter Fat Sold as such	"	1,083	375,453
Ice Cream Mix - Powder	lb.	(e) 1,557,219	(e) 182,724
Liquid (f)	"	(e) 2,614,641	(e) 78,051

(a) Includes Whole Milk equivalent of cream and butter fat purchased as such.

(b) Includes that used for Ice Cream, Ice Cream Mixture etc. in these establishments.

(c) Quantity only available.

(d) This quantity is included in Cheese (Green Weight) produced - shown below.

(e) Includes production in other works.

(f) Excludes Concentrated whole Milk Produced in Condensaries.

The following table sets out particulars of the quantities and values of Butter and Cheese made in Australia during the years 1938-39, 1945-46 and 1948-49 to 1951-52.

TABLE V : BUTTER AND CHEESE MADE : AUSTRALIA

Year	Butter		Cheese (a)	
	Quantity tons	Value £	Quantity tons	Value £
1938-39	194,783	27,030,555	28,976	2,085,106
1945-46	135,571	24,229,661	40,964	4,211,299
1948-49	161,090	38,633,479	43,160	6,003,436
1949-50	168,074	42,577,199	44,777	6,667,358
1950-51	159,631	30,845,983	44,300	6,654,406
1951-52 (b)	131,502	(c)	40,543	(c)

(a) Cheddar cheese, including that used for the manufacture of processed cheese.
 (b) Subject to revision. (c) Not yet available.

The output of Condensed, Powdered etc. Milk products during the years 1938-39, 1945-46 and 1948-49 to 1951-52 is shown in the following table:-

TABLE VI : PRODUCTION OF CONDENSED, CONCENTRATED ETC. MILK : AUSTRALIA
(Tons)

Year	Condensed Milk (Sweetened and Un-sweetened)	Concentrated Whole Milk	Powdered Milk				Butter Milk & Whoy	Infants' & Invalids' Foods (Incl. Malted Milk & Milk Sugar)
			Full Cream		Skim			
			Spray	Roller	Spray	Roller		
1938-39	15,512	(a)1,659	10,712	(b)	(b)	(b)	(a)556	(a)1,299
1945-46	42,897	9,138	11,839	2,663	1,540	793	1,636	8,851
1948-49	47,773	13,177	14,246	5,522	2,353	3,763	3,019	10,312
1949-50	49,767	17,270	14,785	7,754	3,098	6,295	2,989	10,282
1950-51	50,507	18,351	13,879	3,715	2,739	3,832	3,192	11,913
1951-52(c)	38,429	15,252	16,594	(b)	(d)	10,100	2,791	10,439

(a) Incomplete.
 (b) Included with Powdered Milk, Full Cream, Spray.
 (c) Subject to revision.
 (d) Included with Powdered Milk, Skim, Roller.

4. EMPLOYMENT: The number of employees shown in Tables I, II and VIII has been adjusted to represent the average employment over the whole year in those cases where short time was worked. In the following table the factories have been classified for the years 1938-39, 1945-46 and 1948-49 to 1950-51 according to the average number employed during the actual period worked.

TABLE VII : FACTORIES CLASSIFIED ACCORDING TO PERSONS EMPLOYED : AUSTRALIA

Number of Persons Employed in each Factory	1938-39		1945-46		1948-49		1949-50		1950-51	
	No. of Fac-	No. Em- ployed	No. of Fac-	No. Em- ployed	No. of Fac-	No. Em- ployed	No. of Fac-	No. Em- ployed	No. of Fac-	No. Em- ployed
Under 4	108	241	64	139	66	155	58	129	50	112
4	42	168	30	120	20	80	25	100	14	56
5 to 10	181	1,288	141	1,023	116	864	100	739	108	815
11 to 20	116	1,648	138	2,013	122	1,517	127	1,914	109	1,664
21 to 50	62	1,902	60	1,863	76	2,350	79	2,417	90	2,748
51 to 100	10	697	18	1,289	19	1,333	26	1,921	25	1,909
101 to 200	4	945	7	963	11	1,644	8	1,224	8	1,293
201 & Over										
TOTALS:	523	6,889	462	8,941	434	10,542	428	10,511	409	10,788
Average No. Employed per Factory	13		19		23		25		26	

Further details of employment in the industrial group - Butter, Cheese and Condensed, Concentrated, etc. Milk - are furnished in the two tables following.

In Table VIII the number of males and females employed in the industrial group - Butter, Cheese and Condensed etc. Milk - are shown for the years 1938-39, 1949-50 and 1950-51 according to the nature of their employment but, because of the change in classification which operated from 1945-46, comparison between 1938-39 and later years shown is not wholly effective.

TABLE VIII : PERSONS EMPLOYED CLASSIFIED ACCORDING TO OCCUPATIONAL STATUS :

AUSTRALIA

Occupational Status	Males			Females		
	1938-39	1949-50	1950-51	1938-39	1949-50	1950-51
Working Proprietors ..	66	30	25	2	2	3
Managerial and Clerical Staff, incl. Salaried Managers & Working Directors			910		713	706
Chemists, Draftsmen and other Laboratory and Research Staff	5,496	127	133	841	68	65
Foremen and Overseers ..		364	400		7	7
Workers in Factory (Skilled and Unskilled) ..		6,914	7,048		660	754
Other (incl. Carters, Messengers, etc.)	445	623	656	1	-	-
TOTAL:	6,007	8,999	9,172	844	1,470	1,535

The numbers of persons employed on or about the 15th June for the years 1939, 1946 and 1949 to 1951, are distributed according to age and sex in Table IX.

TABLE IX : DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE AND SEX : AUSTRALIA
(Excluding Working Proprietors)

June	Under 16 years	16 years	17 years	18 years	19 years	20 years	Total 16 to 20 years	21 years & Over	Total All Ages
MALES									
1939	119	(a)	(a)	(a)	(a)	(a)	826	4,658	5,693
1946	91	121	163	169	171	148	772	6,387	7,250
1949	123	106	142	135	155	140	678	7,415	8,216
1950	96	121	133	135	154	176	719	7,526	8,341
1951(b)	103	127	123	136	140	142	663	7,909	8,620
FEMALES									
1939	38	(a)	(a)	(a)	(a)	(a)	335	415	788
1946	52	100	116	119	141	111	527	743	1,382
1949	63	84	92	99	134	118	527	852	1,442
1950	57	80	97	97	106	108	488	862	1,407
1951(b)	49	84	121	122	89	111	527	883	1,459

(a) Details not collected.

(b) Last pay-day of month.

5. POWER EQUIPMENT: Statistics of the power equipment of the factories included in this group are given in the next table. The details given include the rated horse-power of engines ordinarily in use, together with those in reserve or idle.

TABLE X : TYPES AND RATED HORSE-POWER OF ENGINES : AUSTRALIA

Class of Engine	Rated Horse-Power of Engines					
	Ordinarily in Use			In reserve or idle		
	1938-39	1949-50	1950-51	1938-39	1949-50	1950-51
Steam - Reciprocating ..	6,630	5,653	5,373	2,972	1,705	1,826
Turbine ..	1,080	687	1,085	66	4	4
Internal Combustion -						
Gas ..	3,832	2,963	2,574	801	178	314
Petrol or Other Light Oils ..	1,096	978	995	206	162	146
Heavy Oils ..	16,238	11,248	10,673	1,521	3,795	4,077
Water ..	49	37	2	-	-	-
Total Prime Movers:	28,924	21,566	20,702	5,566	5,844	6,367
Motors driven by electricity -						
Purchased ..	16,135	40,243	53,497	1,220	3,576	5,220
Own Generation ..	(a)8,382	(a)19,771	(a)9,008	540	1,527	3,244
Total Electricity:	24,517	58,014	62,505	1,760	5,103	6,464
TOTAL POWER USED:	45,059	69,609	74,199	7,326	10,947	12,831

(a) These motors are driven by electricity generated by Prime Movers shown above, and are excluded from statistics of total power used to avoid duplication.

6. POWER, FUEL AND LIGHT, ETC. USED: Details of the quantities and values of the various items of power, fuel and light, etc. used in Butter, Cheese and Condensed, Concentrated, etc. Milk Factories are shown in the following table:-

TABLE XI : POWER, FUEL AND LIGHT, ETC. USED : AUSTRALIA

Particulars	Unit of Qty.	Quantity			Value (£)		
		1938-39	1949-50	1950-51	1938-39	1949-50	1950-51
Power, Fuel and Light-Coal - Black	ton	35,416	105,676	101,999	41,893	312,325	308,046
Brown	"	29,224	72,740	72,153	35,890	95,899	99,821
Brown Coal Briquettes	"	(a)	30,338	28,224	(a)	71,507	78,077
Coke ..	"	1,342	2,363	1,280	2,017	5,982	5,395
Wood ..	"	269,388	262,872	230,160	118,786	303,464	307,082
Fuel Oil ..	gal.	1,114,582	2,382,893	2,260,753	51,098	163,870	162,069
Tar Fuel ..	"	(b)	32,160	5,200	(c)	1,340	260
Electricity ..	-	(d)	(d)	(d)	88,304	291,222	337,892
Gas ..	-	(d)	(d)	(d)	1,359	656	364
Other (Charcoal, etc.)	-	(d)	(d)	(d)	6,689	13,918	19,402
Water and Lubricating Oil used ..	-	(d)	(d)	(d)	43,465	80,169	85,524
TOTAL:		(d)	(d)	(d)	309,501	1,340,352	1,503,952

(a) Included with Brown Coal

(b) Not available.

(c) Included with other (Charcoal, etc.)

(d) Value only available.

7. VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY: Particulars of the book value of premises occupied and plant used for Butter, Cheese and Condensed, Concentrated etc. Milk Factories at the 30th June for the years 1938-39, 1945-46 and 1948-49 to 1950-51 are shown in the next table. Details of the values of additions and replacements made and depreciation allowed during the same period are also shown. It should be noted that the amounts are those recorded by factories which were operating during each year and that changes in their number, as well as other factors affect comparison from year to year.

TABLE XII : VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY, ETC. : AUSTRALIA
(c)

Year	Book Values at 30th June (a)		Additions & Replacements made during year		Depreciation allowed during year	
	Land and Buildings	Plant and Machinery	Land and Buildings	Plant and Machinery	Land and Buildings	Plant and Machinery
1938-39	2,580,323	3,066,830	144,195	363,710	78,298	299,382
1945-46	3,506,020	3,507,366	128,602	560,885	93,845	438,299
1948-49	4,235,559	4,478,802	363,802	1,163,537	112,075	579,433
1949-50	4,561,898	5,547,226	448,309	1,467,445	144,734	746,156
1950-51	5,399,723	7,014,208	879,793	2,131,063	249,872	875,021

(a) Includes estimated value of rented premises and machinery

8. EXTERNAL TRADE: Details of the exports of Butter, Cheese and Condensed, Concentrated, etc. Milk are given in the following table for the years 1938-39, 1945-46 and 1948-49 to 1950-51.

TABLE XIII : EXPORTS OF BUTTER, CHEESE AND CONDENSED, CONCENTRATED, ETC. MILK (a) :

AUSTRALIA

Articles	Unit	1938-39	1945-46	1948-49	1949-50	1950-51
Butter (b)	ton	(c)102,474	(c)61,992	(c) 82,959	81,394	55,058
	£A.fob.	12,891,837	12,493,116	24,146,442	25,410,543	18,919,269
Cheese	ton	16,038	14,629	26,021	22,948	19,995
	£A.fob.	1,074,008	1,689,124	4,100,641	4,145,462	4,025,120
Milk (Preserved, Condensed, concentrated) - Sweetened	ton	5,613	17,804	29,464	31,471	32,595
	"	337	4,307	1,481	831	2,057
Milk (Dried or in powdered form) - Full Cream	"	1,340	2,655	6,317	10,654	7,587
	"	257	487	4,542	8,514	3,821
Skim	"	252	917	1,887	1,222	1,006
Infants' & Invalids' Foods - Essentially of Milk	"	731	1,236	2,790	3,126	2,698
	"	-	403	2,319	2,434	2,864
Other n.e.i.	"	-	-	-	-	-

(a) Excludes Ship's Stores. (b) Includes Ghee and Tropical Spread expressed as Butter. (c) Includes Dry Butter Fat expressed in butter.

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