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MANUFACTURING INDUSTRIES,

1944-45.

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No. 26. BREWERIES.

**PREPARED UNDER DIRECTION FROM THE
RIGHT HONORABLE THE TREASURER.**

BY

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P R E F A C E

1. **GENERAL:** The publication of these surveys which cover 33 industries, is being resumed following a period of suspension during the war. The previous issue respecting Breweries related to the year 1938-39. All Manufacturing Industries Summaries for 1944-45 have now been issued with the following exceptions:- No. 23. Pickles, Sauces, Condiments, etc., No. 32. Electric Light and Power Works, No. 33. Gas Works.
2. **CLASSIFICATION OF FACTORIES:** The classification of factories in Australia is based on the nature of the product. Where two or more distinct types of industrial activity are carried on in one establishment, factory proprietors are requested to furnish separate returns for each activity. In some instances, however, this is not practicable, and in such cases there is no alternative but to classify the factory according to its predominant activity. This difficulty is most acute in the Metal Trades industries (e.g. Engineering firms also producing Agricultural Implements, Stoves and Ovens, and/or Brass and Copper products), but it is also to be found in factories concerned with the treatment or manufacture of Skins, Leather, Clothing, Wood products and some other articles. In consequence, and to an extent which will vary with individual industries, the figures may include the subsidiary but extraneous activities of those establishments included in the industry, while they will exclude relevant activities which are subsidiary to the predominant activity of establishments classified to some other industry. This qualification is not important in the case of Breweries, the industry with which this summary is concerned.
3. **BASIS OF THE STATISTICS:** The scope of the factory statistics is fully explained in Part 1 of the annual Production Bulletin.

Briefly, a "factory" is taken to be an industrial establishment in which four or more hands 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, 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 wholesale 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 of output minus the cost of raw materials, containers, power, fuel, light, lubricants, water, tools replaced, and repairs to plant, and represents the value added in the process of manufacture within the factories. As full details of the costs of production are not collected, the amount of profit resulting from operations cannot be ascertained. The value of production therefore is the source from which such items as wages, interest, depreciation, taxation, insurance, advertising and other sundry charges are met.

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CANBERRA, A.C.T.

(4/3/47)

BREWERIES.1. Summary of Statistics:-

The following table furnishes a summary of the principal statistics of the factories engaged in the brewing of Beer, Stout, Etc. in Australia for the period 1934-35 to 1944-45:-

Table I. BREWERIES-AUSTRALIA.

Year	Number of Factories	Persons Employed (a)	Salaries and Wages Paid (b)	Power, Fuel and Light etc. Used	Value of Other Materials etc. Used (c)	Value of Production	Value of Output (d)
	No.	No.	£'000	£'000	£'000	£'000	£'000
1934-35	39	3,088	950	194	2,255	3,979	6,428
1935-36	35	3,218	1,016	202	2,543	4,363	7,108
1936-37	35	3,378	1,069	213	2,634	4,595	7,443
1937-38	35	3,532	1,144	235	3,217	5,055	8,507
1938-39	34	3,698	1,215	251	3,407	5,372	9,030
1939-40	34	3,848	1,270	273	3,566	5,670	9,509
1940-41	33	4,107	1,318	283	4,348	6,156	10,787
1941-42	33	4,178	1,463	311	4,521	6,080	11,212
1942-43	33	3,910	1,424	317	4,001	5,419	9,737
1943-44	33	3,873	1,444	339	4,016	5,615	9,970
1944-45	33	3,919	1,497	339	4,143	5,670	10,152

(a) Includes Working Proprietors. (b) Excludes amounts drawn by Working Proprietors.

(c) Includes also value of containers, packing etc., tools replaced and repairs to plant. (d) Excludes Excise Duty.

In the following table particulars of the Industry are given for each State during the year 1944-45:-

Table II. BREWERIES - STATES, 1944-45

Particulars	New South Wales	Victoria	Queensland	South Australia	West Australia	Tasmania	AUSTRALIA
	No.	No.	No.	No.	No.	No.	No.
Number of Factories	6	8	6	5	6	2	33
Number Employed (a)-							
Males	1006	1351	431	299	549	85	3721
Females	106	34	32	13	13	-	198
Total	1112	1385	463	312	562	85	3919
Value of-	£	£	£	£	£	£	£
Salaries & Wages Paid (b)	397,676	561,767	169,283	(c)	209,926	(c)	1,466,658
Power, Fuel and Light etc. used	104,367	94,981	49,642	(c)	46,823	(c)	338,813
Materials etc. Used	1,358,124	1,422,266	49,188	(c)	468,326	(c)	4,142,563
Production	2,458,396	1,200,780	844,054	(c)	660,687	(c)	5,670,159
Output (d)	3,920,889	2,718,027	1,342,884	(c)	1,175,836	(c)	10,151,935
Land & Buildings	1,168,261	752,040	504,068	(c)	280,009	(c)	3,104,239
Plant & Machinery	653,170	818,950	353,454	(c)	245,790	(c)	2,458,703
H.P. of Engines Ordinarily in use.	9,217	6,597	3,468	(c)	2,918	(c)	25,010

(a) Includes Working Proprietors. (b) Excludes amounts drawn by Working Proprietors.

(c) Not available for publication. These figures are included in the total for Australia. (d) Excludes Excise Duty.

2. Average Salaries Output and Production:-

Particulars of the average salary and wage paid together with the average values per employee of output and production are shown in the following table for each of the years 1934-35 to 1944-45:-

3.

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

Year	Salaries and Wages per Employee (a)	Value of Output per person Engaged (b)	Value of Production per person Engaged (b)	Ratio per cent of Salaries and Wages to Value of Production
1934-35	£ 305	£ 2,082	£ 1,329	23.86
1935-36	316	2,009	1,356	23.28
1936-37	317	2,203	1,360	23.26
1937-38	325	2,409	1,431	22.41
1938-39	325	2,442	1,453	22.62
1939-40	331	2,471	1,474	22.40
1940-41	321	2,626	1,499	21.41
1941-42	350	2,683	1,455	24.06
1942-43	365	2,490	1,386	26.29
1943-44	373	2,574	1,450	25.72
1944-45	382	2,590	1,447	26.40

(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 quantities and values of materials used and articles produced in breweries.

TABLE IV. MATERIALS USED AND ARTICLES PRODUCED - AUSTRALIA 1934-45.

Particulars	Unit or Quantity	Quantity	Value (a)
Materials Used:			£
Malt	Bushel	3,171,153	1,365,949
Hops	lb.	2,441,456	268,502
Sugar	ton	20,180	653,249
Other Materials Used	-	-	102,403
Total Value Materials Used	-	-	2,390,163
Articles Produced:			
Ale-Bulk (a)	Gallon	69,608,773	5,394,606
Bottled (a)	"	12,325,092	2,071,197
Total Ale (a)	"	82,536,865	7,470,503
Stout - Bulk	"	38,672	3,100
Bottled	"	1,741,910	321,622
Total Stout	"	1,780,582	324,722
Lager Beer-Bulk (b)	"	8,976,669	749,305
Bottled (b)	"	8,888,347	1,507,268
Total Lager Beer (b)	"	17,865,036	2,256,573
Grand Total:- Bulk	"	70,624,134	8,151,011
Bottled	"	23,558,349	3,880,787
Total:	"	102,182,483	10,031,798
Waste Beer	"	1,167,500	(c)
Non-intoxicating Beer	"	(e)	(e)
Carbon Dioxide	"	1,480,211	20,639
Other Articles	-	-	99,498
Total Value of Output	-	-	10,151,535

(a) Includes Lager Beer produced in Queensland. (b) Excludes Lager Beer produced in Queensland. (c) Quantity only collected. (d) Excludes Excise Duty. (e) Not available for Publication. Value included with Other Articles produced.

Particulars of the materials used and the quantities and values of Beer and Stout made in Australia for the years 1934-35 to 1944-45 are given in the following table:-

TABLE V. MATERIALS USED AND BEER AND STOUT MADE - AUSTRALIA 1934-35 to 1944-45

Year	Materials Used			Beer and Stout Made	
	Malt '000 bus.	Hops '000 lb.	Sugar '000 cwt.	Quantity '000 gal.	Value (a) '000
1934-35	2,174	1,838	224	63,588	6,352
1935-36	2,367	1,974	248	70,111	7,024
1936-37	2,507	2,106	266	74,322	7,951
1937-38	2,639	2,363	313	84,021	8,377
1938-39	2,941	2,351	335	89,232	8,927

T.BLE VI. MATERIALS USED IN BEER AND STOUT, AUSTRALIA, 1938-39 to 1944-45 (CONT'D.)

Year	Materials Used			Beer and Stout Made	
	Malt '000 bus.	Hops '000 lb.	Sugar '000 cwt.	Quantity '000 gal.	Value (A)
1938-39	3,046	2,471	385	93,465	4,292
1939-40	3,300	2,622	393	104,728	10,669
1940-41	3,501	2,677	426	105,155	11,090
1941-42	3,045	2,413	392	92,075	9,707
1942-43	3,146	2,432	402	101,073	9,451
1943-44	3,171	2,441	404	102,182	10,032
1944-45(b)	3,247	2,542	425	107,241	(c)

(a) Exclusive of Excise Duty. (b) Subject to Revision. (c) Not yet available.

4. CONSUMPTION OF BEER. In the following table details are given for the years 1938-39 to 1944-45 of the amount of beer consumed in Australia in total and per head of population, of the estimated cost per head, and of the total revenue received from customs and excise duties.

T.BLE VI. CONSUMPTION OF BEER IN AUSTRALIA

Year	Total Consumption of Beer	Consumption of Beer per head of population	Estimated cost (A) of Beer consumed per head of population	Total Gross Customs and Excise Duty paid on Beer Consumed
	'000 gallons	gallons	£ s. d.	'000
1938-39	84,025	12.13	2. 8. 6	7,360
1939-40	90,104	12.89	2. 11. 7	8,060
1940-41	96,126	13.71	3. 1. 2	11,250
1941-42	98,182	13.76	3. 8. 9	14,374
1942-43	90,534	12.51	3. 15. 0	19,662
1943-44	94,335	12.81	4. 5. 0	21,020
1944-45	94,579	12.87	4. 5. 2	21,974

(a) Estimated wholesale price plus all Duties of Customs and Excise.

5. EMPLOYMENT.

The number of employees in Tables I, II & 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 and 1941-42 to 1944-45 according to the average number employed during the actual period worked.

T.BLE VII. FACTORIES CLASSIFIED ACCORDING TO AVERAGE EMPLOYED - AUSTRALIA

No. of persons employed in each Fcty.	1938-39		1941-42		1942-43		1943-44		1944-45	
	No. of Factories	No. Employed	No. of Factories	No. Employed	No. of Factories	No. Employed	No. of Factories	No. Employed	No. of Factories	No. Employed
Under 4	2	3	2	3	2	3	2	3	2	4
4	1	4	-	-	-	-	-	-	-	-
5 to 10	2	15	1	7	1	8	1	7	1	7
11 to 20	6	96	6	91	6	103	6	105	5	89
21 to 50	7	215	8	243	8	262	7	231	9	299
51 to 100	6	430	4	265	4	291	5	305	4	292
Over 100	10	2,837	12	3,581	12	3,243	12	3,162	12	3,229
TOTAL:	34	3,700	33	4,180	33	3,910	33	3,873	33	3,920
Average No. Employed per Fcty.	109		127		118		117		119	

Further details of employment in the Brewing Industry are furnished in the next three tables. In the first the males employed during the years 1938-39 and 1940-41 to 1944-45 have been classified according to the nature of their employment.

5.

TABLE VIII. MALES EMPLOYED CLASSIFIED ACCORDING TO GRADE OF OCCUPATION - AUSTRALIA.

Grade of Occupation	1938-39	1940-41	1941-42	1942-43	1943-44	1944-45
MALES:	No.	No.	No.	No.	No.	No.
Working Proprietors	2	5	4	3	4	4
Managers and Overseers	144	153	147	141	143	146
Clerical Staff	673	692	616	571	546	555
Engine Drivers and Firemen	218	245	210	217	217	219
Workers, Skilled and Unskilled	2,456	2,701	2,937	2,645	2,639	2,677
Other (Carters and Messengers)	108	111	116	118	117	120
TOTAL MALES:	3,601	3,967	4,032	3,695	3,666	3,721
" FEMALES(a)	97	120	147	215	207	196
" PERSONS	3,698	4,087	4,179	3,910	3,873	3,917

(a) Mainly Clerical Staff.

The next table shows the actual number of persons employed (excluding Working Proprietors) on the pay-day nearest to the 15th of each month for the years 1943-44 and 1944-45.

TABLE IX. PERSONS EMPLOYED ON PAY-DAY NEAREST TO THE 15TH OF EACH MONTH - AUSTRALIA.

Month	1943-44			1944-45		
	(Working Proprietors Excluded)					
	Males	Females	Total	Males	Females	Total
	No.	No.	No.	No.	No.	No.
July	3,522	215	3,737	3,653	203	3,856
August	3,533	213	3,746	3,644	198	3,842
September	3,568	207	3,775	3,654	194	3,848
October	3,574	196	3,770	3,698	191	3,889
November	3,605	199	3,804	3,734	191	3,925
December	3,733	198	3,931	3,751	200	3,951
January	3,701	203	3,904	3,712	197	3,909
February	3,706	210	3,916	3,741	193	3,934
March	3,695	207	3,902	3,739	192	3,931
April	3,706	210	3,916	3,742	196	3,938
May	3,726	210	3,936	3,738	195	3,933
June	3,677	211	3,888	3,769	198	3,967

A classification of the number of employees according to age and sex on or about the 15th June for the years 1939 to 1945 is shown in the next table:-

TABLE X. DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE AND SEX: AUSTRALIA.

JUNE	MALES				FEMALES				PERSONS			
	Under 16 yrs.	16 & under 21 yrs.	Adults	Total	Under 16 yrs.	16 & under 21 yrs.	Adults	Total	Under 16 yrs.	16 & under 21 yrs.	Adults	Total
1939	6	260	3,333	3,599	1	20	76	97	7	280	3,409	3,696
1940	6	297	3,396	3,699	1	28	77	106	7	325	3,473	3,805
1941	9	356	3,733	4,098	2	41	79	122	11	397	3,812	4,220
1942	26	270	3,368	3,664	1	53	118	172	27	323	3,506	3,856
1943	14	218	3,372	3,604	4	58	162	224	18	276	3,534	3,888
1944	13	183	3,481	3,677	1	60	150	211	14	243	3,631	3,886
1945	15	168	3,566	3,769	4	60	134	198	19	228	3,720	3,967

6. 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 for the years 1938-39, 1943-44 & 1944-45 together with those in reserve or idle.

TABLE 11. TYPES AND RATED HORSE POWER OF ENGINES-AUSTRALIA.

Class of Engine	Rated H.P. of Engines					
	Ordinarily in use			In Reserve or Idle		
	1938-39	1943-44	1944-45	1938-39	1943-44	1944-45
Steam-Reciprocating	H.P. 2,314	H.P. 2,302	H.P. 2,302	H.P. 2,133	H.P. 2,113	H.P. 2,433
Turbine	-	-	-	656	656	656
Internal Combustion						
Gas	100	100	100	8	44	44
Petrol or Other Light Oils	5	-	-	5	5	5
Heavy Oils	963	1,030	1,030	766	869	869
Water	-	-	-	-	-	-
Total Prime Movers	3,382	3,432	3,432	3,566	3,757	4,007
Motors driven by electricity						
Purchased	19,846	21,401	21,578	931	1,574	1,613
Own Generation	360	514	1,002	23	11	11
Total Electricity	20,206	21,915	22,580	954	1,585	1,624
TOTAL POWER USED (a)	23,231	24,833	25,010	4,520	5,342	5,631

(a) Without Duplication.

7. Consumption of Power, Fuel and Light:-

Details of the quantities and values of the various items of power, fuel and light used in Breweries are shown in the following table for the years 1938-39, 1943-44 and 1944-45:-

TABLE XII. POWER, FUEL AND LIGHT, ETC. USED - AUSTRALIA.

Particulars	Unit of Qty.	Quantity			Value		
		1938-39	1943-44	1944-45	1938-39	1943-44	1944-45
					£	£	£
Power, Fuel and Light:-							
Coal - Black	Ton	54,093	46,946	42,735	72,983	80,468	74,877
Brown	"	6,431	5,143	3,945	8,655	9,121	7,072
Coke	"	1,569	12,709	12,684	2,522	27,823	26,579
Wood	"	16,655	15,447	17,222	10,131	17,694	21,475
Fuel Oil	Gallon	268,946	582,232	559,833	6,771	30,282	26,991
Electricity	-	(a)	(a)	(a)	68,073	100,986	102,207
Gas	-	(a)	(a)	(a)	1,260	1,367	1,430
Other (Charcoal etc.)	-	(a)	(a)	(a)	18	2,379	2,378
Water & Lubricating Oil Used	-	(a)	(a)	(a)	60,873	69,342	73,907
TOTAL:		(a)	(a)	(a)	251,286	339,462	338,913

(a) Value only available

8. Value of Land & Building, Plant & Machinery.

Particulars of the book values of premises occupied and plant used in Breweries at the 30th June for each of the seven years ended 1945 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 shown 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 XIII. Value of Land and Buildings, Plant and Machinery: AUSTRALIA.

Year	Book Value as 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	2,801,147	2,737,042	102,161	356,625	18,108	182,540
1939-40	2,851,337	2,778,290	63,241	241,989	15,514	200,835
1940-41	3,048,505	2,861,920	124,359	166,875	15,801	194,072
1941-42	3,199,623	2,856,962	138,360	135,565	14,077	196,955
1942-43	3,201,121	2,762,038	15,825	77,987	13,636	201,760
1943-44	3,196,936	2,595,508	1,556	42,727	9,788	199,480
1944-45	3,168,239	2,458,703	5,083	40,070	8,046	175,749

(a) Includes estimated value of rented premises and machinery

C. External Trade.

The quantities and values of imports and exports of Ale, Beer and Porter are given in the following table for the period 1934-35 to 1944-45:-

TABLE XIV. IMPORTS AND EXPORTS OF ALE, BEER AND PORTER
AUSTRALIA.

Year	EXPORTS				IMPORTS			
	In Bottles		In Bulk		In Bottles		In Bulk	
	Cty.	Value	Cty.	Value	Cty.	Value	Cty.	Value
	Gal.	£	Gal.	£	Gal.	£	Gal.	£
1934-35	111,211	50,341	10	1	268,241	59,808	27,783	2,171
1935-36	113,238	39,534	142	43	292,098	54,928	31,011	2,997
1936-37	118,589	33,591	21	40	319,011	68,275	41,335	4,048
1937-38	128,322	40,880	11	4	332,632	77,458	40,708	3,435
1938-39	131,029	41,301	515	173	341,141	73,123	40,805	3,976
1939-40	137,350	46,996	4	1	682,090	141,489	89,023	6,764
1940-41	46,443	17,604	-	-	6,374,000	1,334,473	106,362	8,318
1941-42	41,341	16,733	94	21	6,822,795	1,527,327	85,775	12,012
1942-43	85,452	22,697	24,500	3,809	3,046,045	620,668	105,105	12,594
1943-44	12,200	3,785	-	-	1,710,132	331,495	67,012	8,413
1944-45	786	339	-	-	3,121,547	636,154	64,856	6,232

10. Minimum Weekly Rates of Wage:

The following table shows the weekly minimum rates of wage in force at 30th June, 1945. These have been prescribed by Commonwealth and State Tribunals. Where no rate is shown it indicates that the particular occupation is not specifically provided for. In all cases the number of hours constituting a full week's work is 44.

TABLE XV. BREWERIES.
Minimum Weekly Rates of Wage as at 30th June, 1945.

Occupation	New South Wales		Victoria		Queensland		South Australia		Western Australia		Tasmania	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Townsmen	122	0	123	0	118	0	121	0	123	0	115	6
Cellarmen	119	0	122	3	118	0	124	0	120	0	110	6
	122	0										
Malt Store men	119	0	119	0	118	0	116	0	120	0	108	0
Tun room men	119	0	119	0	118	0	118	0	120	0	106	0
Fermenting room men	119	0	119	0	118	0	118	0	120	0	108	0
Filter room men	119	0	119	0	118	0	118	0	120	0	108	0
Pulp room men	119	0	119	0	118	0	118	0	120	0	108	0
Cask wash Employees	119	0	119	0	118	0	118	0	120	0	108	0
Cask painters, corkers, pitchers, and branders	119	0	119	0	118	0	118	0	120	0	106	0
Cooperage labourers	119	0	119	0	118	0	118	0	120	0	108	0
Bottlers	119	0	119	0	108	0	118	0	120	0	108	0
Cylinder and Tube Attendants	119	0	119	0	118	0	118	0	120	0	106	0
Maltster	121	0	120	0	118	0	125	0	120	0	115	6
	127	0										
Juniors - Male												
16 years	39	9	40	6	-	-	46	1	-	-	-	-
17 years	49	6	50	2	-	-	55	8	-	-	-	-
18 "	59	9	60	10	55	6	66	10	-	-	-	-
19 "	73	6	74	3	65	0	82	3	-	-	-	-
20 "	90	9	91	5	76	6	94	10	-	-	-	-
Wipers (1st week)	73	6	-	-	-	-	-	-	-	-	-	-
" thereafter	104	6	-	-	-	-	-	-	-	-	-	-
Pasteurizing	94	9	-	-	-	-	-	-	-	-	-	-

C. denotes Commonwealth Court Awards. S. denotes State Award.
(a) Wages paid by agreement.