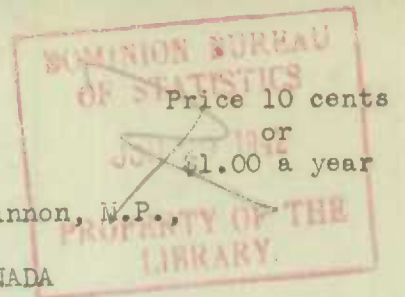


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 Fisheries and Animal Products Branch

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PRODUCTION OF CONCENTRATED MILK, CANADA, MAY, 1942^x

Statistics of the production of concentrated milk in May, 1942 are based on returns from the 70 firms whose factories manufactured during the month any of the various items embraced in the classification of "concentrated milk", i.e., condensed whole milk and condensed skim milk, evaporated whole milk and evaporated skim milk, whole milk powder and skim milk powder, etc.

Production. - The production of concentrated milk (whole milk and by-products, combined) amounted to 31,738,692 pounds, an increase over the preceding month of 7,750,159 pounds, or 32 per cent, and an increase over May, 1941, of 3,573,828 pounds, or 13 per cent. Evaporated whole milk is the principal item of manufacture, and its output in May marks an increase over April of 5,751,208 pounds, or 35 per cent, and over May of last year of 2,394,517 pounds, or 12 per cent.

Cumulative Production. - In the five months ended May 31 the total output of concentrated milk was 95,679,706 pounds, compared with 90,791,120 pounds in the corresponding period of 1941 - an increase of 4,888,586 pounds, or 5 per cent.

Foreign Trade. - Due to restrictions made necessary by the War, statistics of imports and exports will no longer be included in the Monthly Report of Concentrated Milk Production.

Stocks. - Storage holdings of concentrated milk at date of June 1 totalled 16,571,625 pounds, compared with 10,719,419 pounds at May 1, and 14,721,243 pounds at June 1, 1941. Evaporated whole milk stocks amounted to 9,464,555 pounds, or a million pounds less than at the corresponding date in 1941, while the amount of condensed whole milk was greater than at the earlier date by nearly two million pounds.

1. Concentrated Milk Production for May, 1942, with Comparative Statistics for April, 1942 and May, 1941.

Kind	May, 1942 Lb.	April, 1942 Lb.	May, 1941 Lb.
<u>Concentrated Whole Milk Products</u>			
Condensed whole milk (sweetened):			
Case goods.....	1,937,612	1,476,141	1,837,130
Bulk goods.....	580,832	921,767	459,454
Evaporated whole milk (unsweetened):			
Case goods.....	22,057,685	16,417,170	19,865,245
Bulk goods.....	298,614	187,921	96,537
Whole milk powder:			
Spray process.....	997,881	762,145	713,570
Roller process.....	231,637	239,525	244,558
TOTAL	26,104,261	20,004,669	23,216,494
<u>Concentrated Milk By-Products</u>			
Condensed skim milk.....	656,508	550,978	492,937
Evaporated skim milk.....	147,895	119,775	166,690
Skim milk powder:			
Spray process.....	1,611,373	1,251,841	1,804,133
Roller process.....	1,837,807	1,302,024	1,526,424
Sugar of milk.....	39,390	29,810	28,320
Buttermilk powder.....	593,144	411,772	592,636
Condensed buttermilk.....	324,105	110,886	142,402
Casein.....	424,209	206,778	194,828
TOTAL	5,634,431	3,983,864	4,948,370

^x See page 3 for factory sales of milk powders.

University of Toronto
Faculty of Arts
Department of Economics
ECON 1004
Assignment 1

1. (a) The production function is $Q = 100L^{0.5}K^{0.5}$. The cost function is $C = 10L + 20K$. The firm wants to produce 1000 units of output at the lowest possible cost. Find the optimal levels of labor and capital.

(b) The firm wants to produce 1000 units of output at a total cost of 1000. Find the optimal levels of labor and capital.

(c) The firm wants to produce 1000 units of output at a total cost of 1000. Find the optimal levels of labor and capital.

(d) The firm wants to produce 1000 units of output at a total cost of 1000. Find the optimal levels of labor and capital.

Q	L	K	C
1000	100	100	3000
1000	200	50	2000
1000	50	200	2000
1000	100	100	3000
1000	200	50	2000
1000	50	200	2000
1000	100	100	3000
1000	200	50	2000
1000	50	200	2000
1000	100	100	3000

2. Cumulative Production of Concentrated Milk for the Five Months Ended May 31, 1942, with Comparative Statistics for the Five Months Ended May 31, 1941.

Kind	Five Months Ended May 31	
	1942 Lb.	1941 Lb.
<u>Concentrated Whole Milk Products</u>		
Condensed whole milk (sweetened):		
Case goods.....	4,906,959	4,781,438
Bulk goods.....	3,093,377	2,216,267
Evaporated whole milk (unsweetened):		
Case goods.....	65,776,106	64,384,006
Bulk goods.....	811,413	415,465
Whole milk powder:		
Spray process.....	3,192,137	2,227,868
Roller process.....	1,100,546	1,083,851
Cream powder.....	-	6,709
TOTAL	78,880,538	75,115,604
<u>Concentrated Milk By-Products</u>		
Condensed skim milk.....	2,591,251	1,889,704
Evaporated skim milk.....	554,180	627,929
Skim milk powder:		
Spray process.....	5,205,940	5,786,944
Roller process.....	5,041,229	4,523,136
Sugar of milk.....	112,800	84,233
Buttermilk powder.....	1,667,480	1,621,054
Condensed buttermilk.....	722,306	651,339
Casein.....	903,982	491,177
TOTAL	16,799,168	15,675,516

3. Stocks (a) of Concentrated Milk in Cold Storages, Warehouses, and Dairy Factories June 1, 1942 with Comparative Statistics for May 1, 1942 and June 1, 1941.

Kind	June 1, 1942	May 1, 1942	June 1, 1941
	Lb.(b)	Lb.	Lb.
<u>Concentrated Whole Milk Products</u>			
Condensed whole milk.....	2,496,665	1,668,911	792,410
Evaporated whole milk.....	9,464,555(c)	6,534,497(c)	10,548,401
Whole milk powder:			
Spray process.....	1,215,400	766,082	580,311
Roller process.....	283,624	151,430	180,077
Total Whole Milk Products	13,460,244	9,120,920	12,101,199
<u>Concentrated Milk By-Products</u>			
Condensed skim milk.....	(321,273	(264,552	161,640
Evaporated skim milk.....	((6,561
Skim milk powder:			
Spray process.....	924,451	528,870	1,027,421
Roller process in bags.....	438,295	234,180	221,782
Roller process in barrels.....	877,912	362,818	724,278
Buttermilk powder.....	146,882	56,492	197,642
Casein.....	402,568	151,587	280,720
Total Milk By-Products.....	3,111,381	1,598,499	2,620,044

(a) Owned and held by and/or for manufacturers.

(b) Agricultural Branch - Revised to date of June 23, 1942.

(c) In addition there were amounts held by wholesale grocers, as follows: 8,581,015 lb. at date of June 1, 1942; and 6,275,757 lb. at date of May 1, 1942.

REPORT ON THE FACTORY SALES OF MILK POWDERS, CANADA, MAY, 1942.

The statistics of the present report are based on returns from the 54 manufacturers whose plants sold during the month any of the various kinds of milk powders and casein.

1. Sales of Milk Powders, May, 1942.

Kind	Quantity sold	Total Value	Average price per lb. (a)
	Lb.	\$	cents
Whole milk powder (bulk goods):			
Spray process.....	233,724	76,230	32.62
Roller process.....	124,712	26,340	21.12
Buttermilk powder - roller process....	499,817	41,449	8.29
Skim milk powder (bulk goods):			
Spray process.....	1,205,822	144,196	11.96
Roller process for human consumption.....	929,937	89,590	9.63
Skim milk powder - roller process for animal consumption.....	479,595	40,720	8.49
Casein (acid).....	276,054	61,097	22.13
Total value	-	479,622	-

2. Cumulative Sales of Milk Powders, January to May, 1942, inclusive,

Kind	Quantity sold	Total Value	Average price per lb. (a)
	Lb.	\$	cents
Whole milk powder (bulk goods):			
Spray process.....	1,117,714	349,491	31.27
Roller process.....	664,943	140,167	21.08
Buttermilk powder - roller process....	2,081,786	180,180	8.66
Skim milk powder (bulk goods):			
Spray process.....	4,253,905	476,492	11.20
Roller process for human consumption.....	3,627,439	345,371	9.52
Skim milk powder - roller process for animal consumption.....	1,257,609	109,925	8.74
Casein (acid).....	809,326	185,143	22.88
Total value	-	1,786,769	-

3. Sales of Milk Powders, May, 1941.

Kind	Quantity sold	Total Value	Average price per lb. (a)
	Lb.	\$	cents
Whole milk powder (bulk goods):			
Spray process.....	123,046	36,115	29.35
Roller process.....	103,310	19,077	18.47
Buttermilk powder - roller process....	493,162	34,869	7.07
Skim milk powder (bulk goods):			
Spray process.....	1,318,850	135,535	10.28
Roller process for human consumption.....	917,327	69,944	7.62
Skim milk powder - roller process for animal consumption.....	663,244	48,433	7.30
Casein (acid).....	235,165	30,358	12.91
Total value	-	374,351	-

(a) Prices are based on goods as delivered.



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