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DHPARTMENT OF TRADE AND COMMERCE DOMINION RUREAU OF STATISTICS CERSUS OF INDUSTRY MINING, METALLURGICAL AND CHEMICAL QTIARA - CANALA S. A. Cudmore, M.A. (oxon.), F.S.S., F.R.S.C. Dominion Statistician:
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## CIMICALS AND ALLTEL PHOMCTS

PRHITMINARY SIMMGRY STATISTTCS 1941
Although Canada's chemical and allied industries contirued to operate at close to peak levels during most cf 1944, the preliminary production values which. have fust become available indicate an over-all decline of atout 6 per cent from the record output in 1943. This was due, apparently, to slightly lower schedules for ammuitior and propellents in the early months of the year as there were about equal gains and losses amongst the other industries in this group. The velue for 1944 has beon placed at $\$ 719.9$ millions, which is more than four times the best prewar total of $\$ 159.5$ millions established in 1939. The shell fliling and small arms ammuitions inclustries eccount for a very large share of the totals in the war years, and if these were excluded the value for 1944 would be $\$ 364$ millions compered with $\$ 359$ millions in 1943, and $\$ 348$ millions in 1942.

In 1944 there were 955 operating establishments in the chemicals and allied industries, and these were distributed across the country as follows: 318 in Quebec, 489 in Ontarlo, 61 in British Columbia, 59 in Manitoba, 17 in Alberta, 14 in Nova Scotia, 9 in Saskatchewan, 7 in New- Brunswick and 1 in Prince Edward Island. The works in Quebec accountea for 50 per cent of the production and those in ontarlo for 42 per cent. The average employment in all these works was 81,895 , including about 39,000 in shell-fllling and small amm ammuntion, and salaries and wages for the year totalled $\$ 135.7$ millions.

Seven of the industries in this group showed declines in output values In 1944 and six showed increases. The percentage losses were as follows: the miscellaneous group, including shell fyiling, 10.9 ; heavy chemicals, 2.2; paints 5.8; compressed gases 1.1; coal tar distillation 4.6; hardwood distillation II.1; and adhesives 3.0. The gains were: fertilizers 1.4.4; medicinals 7.9; soaps 3.1; toilet preparations 8.4; inks 5.4 ; and polishes 11.0 per cent.

Imports of chemicels and allied products were higher in 1944 than ever before, amounting to $\$ 80.8$ millions or 14.6 per cent more than in 1943. The principal gains were in explosives, pigments and in miscellaneous chemicals, which included quite large emounts of butadiene. The United States supplied 86 per cent of the receipts in this category and the United Kingdom accounted for 10 per cent.

Exports were al so much greater in 1944 , beins valued at $\$ 000.7$ millions or 16.5 per cent over the 1943 figure. Explosives, fertilizers, ethyl alcohol, cyanamide, sodium compounds, acetsc acid and vinyl resins were the more important items for shipment to other countries. Forty-seven per cent of the total went to the United States and 24 per cent to the United Kingdom.

Tahle 1 - PRTNCIPAL STATISITCS FOR THE MANUFACTURE OF CHERICALS AND ALLIED PRODUCTS

| Industry | Number of plarts | Average number of enployees | Salaries and wages \$ | cost of fuel and electricity at works. | Cost of materials at works $\qquad$ <br> \$ | Gross sell ing value of prociucts at norks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1943 |  |  |  |  |  |  |
| Coal tar distullation. | 10 | 424 | 789,335 | 326,448 | 4,059,598 | 6,540,285 |
| licavy chemicals | 38 | 8,045 | 15,057,723 | 8,502,717 | 27,714,019 | 78,359,453 |
| Compressed gases | 38 | 1,080 | 1,848,753 | 344,156 | 1,380,575 | 9,212,226 |
| Fertilizers | 26 | 2,204 | 4,314,742 | 1,141,339 | 19,036,806 | 27, 105,357 |
| ceuticals .......... | 205 | 7,187 | 10,012,562 | 352,760 | 18,997,079 | 50,772,686 |
| Paints, pigments and verni shes | 96 | 4,589 | 8,261,722 | 510,324 | 22,754,700 | 45,067,845 |
| Scans and washing compounds | 134 | 3,220 | 5,853,026 | 662,038 | $16,625,211$ | 31,491,328 |
| Toilet preparations .. | 86 | 1,889 | 2,386,053 | 51,749 | 5,123,030 | 15,510,204 |
| Inks | 32. | 571 | 1,283,869 | 41,837 | 1,920,857 | 4,657,465 |
| Herdwood distillation. | 6 | 297 | 373, 457 | 278,976 | 961,590 | 1,722,828 |
| Adhesives | 22 | 651 | 1,091,721 | 2I1,889 | 3,037,649 | 5,736,151 |
| Polishes and dressings | 52 | 703 | 908,219 | 30,652 | 3,559,818 | 6,382,042 |
| Miscellaneous ( x ) | 200 | 61. 428 | 94,496, 231 | 5,198,687 | $242,940,411$ | $482,660,017$ |
| TOTAL | 945 | 92,288 | 146,677,194 | 17,65\%,352 | 368,111,343 | 765,217,887 |

## 1944 (Praliminary)

| Coal tar | 10 | 433 | 845,68 | 339,684 | 3,454,962 | 6,236,616 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Heavy chemicals | 36 | 7,965 | 15,565,527 | 8,810,685 | 27,214,381 | 76,738,723 |
| Compressed gases | 40 | 1,226 | 2,176,448 | 355,358 | 1,284,227 | 9,109,553 |
| Fertilizers | 26 | 2,249 | 4,492,274 | 1,152,078 | 17,115,623 | 31,009,207 |
| Medicinals and pharmaceuticals | 201 | 7,507 | 11,591, | 352,602 | 21,729,620 | 54,792,737 |
| Paints, pigments and varnishes | 97 | 4,230 | 7,635,826 | 454,31. | 22,166,488 | 20 |
| Soaps and washing com-pounds | 132 | 3,118 | 5,611,338 | 603,450 | 17,298,953 | 32,586,539 |
| Toilct preparations | 91 | 2,024 | 2,578,312 | 41,325 | 5,962,265 | 16,828,159 |
| Inks | 52 | 598 | 1,315,828 | 45,449 | 2,085, 579 | 4,917,337 |
| Hardmod distillation. | 5 | 291 | 418,733 | 245,190 | 915,300 | 1,528,022 |
| Adhesives | 23 | 661 | 1,089,067 | 220,061 | 3,069,418 | 5,578,446 |
| Polishes and dressings | 51. | 687 | 955,699 | 30,753 | 3,912,682 | 7,179,974 |
| Miscellancous ( x ) | 211 | 906 | . 996.352 | 220,792 | $5,489,370$ | 30,075,130 |
| TOTAL | 955 | 81,895 | 35,672,26 | 71 | 1,638, | 15 |

Per cont change, 1944
from $1943 \ldots \ldots \ldots$$\ldots$
(x) Includes explosives and amaunition fllling.

NOTE: Profits or losses cannot be computed from the above figures as data are not avollable for general expense items, such as rent, depreciation, texes, insurance, advertising, etc.

Table 2 - PRINCIPAL STATISTICS FOK THE MANUFACTURE OF CHEMICALS AND ALLIED PRODUCTS


## 1943

Nove Scotis and

| Prince Edward <br> Island ...... | 15 | 387 | 583,781 | 104,625 | 2,577,147 | 4,570,342 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New Brunswl ck | 8 | 300 | 424,902 | 35,739 | 2,623,304 | 3,674,722 |
| Quebec | 310 | 53,482 | 82,261,382 | 7,277,340 | 131,742, 3 2? | 371,789,166 |
| Ontario | 484 | 32,157 | 52, 590,733 | 7,705,234 | 211,897,880 | 338,236,584 |
| Manit to ba | 39 | 3,035 | 4,933,881 | 505,310 | 6,998,096 | 14,863,116 |
| Saskatchewan | 9 | 91 | 121,96? | 11,283 | 222,890 | 515,040 |
| Alberta | 19 | 507 | 946,073 | 588,986 | 584,436 | 3,301,024 |
| British Columbia | 61 | 2,349 | 4.814.480 | 1,425,035 | $11.465,268$ | 28,317,893 |
| CANADA | 945 | 92,288 | 146,677,194 | 17,65\%,552 | 368,111,345 | 765,217,887 |


| 1944(Preliminary) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Nova Scotia and |  |  |  |  |  |  |
| Prince Edward |  |  |  |  |  |  |
| Isl and | 15 | 411 | 620,249 | 109,108 | 2,725,208 | 4,528,285 |
| New Brunswick | 7 | 305 | 455,649 | 32,273 | 2,785,227 | 3,875,555 |
| Quebec | 318 | 45,878 | 73, 387,111 | 7,062,320 | 134,592,404 | 362, 301,335 |
| Ontario | 489 | 29,206 | 50,234,507 | 7,804,207 | 172,974,977 | 301,820,701 |
| Mand to ba | 39 | 3,121 | 5,022,864 | 599,255 | 8,446,027 | 16,082,173 |
| Saskatchewan | 9 | 108 | 140,496 | 11,853 | 259, 319 | 562,131 |
| Al berta | 17 | 514 | 949,584 | 546,085 | 982,493 | 5,160,912 |
| British Columbia | 61 | 2,354 | 4,861,806 | 1,706,641 | 8,933,013 | $25,616,591$ |
| CANADA | 955 | 81,895 | 135,672,266 | 17,871,742 | 351,698,668 | 719,945,663 |



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