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## CHEMICALS AND ALLIED PRODUCTS

## PRELTHTNARY SUMMARY STATISTICS - 1949

The chemical and allied industries kept pace with the general high level of industrial producetion in Canada in 1949. Accordin; to a preliminary compilation just completed, the value of output in 1949 for this group of industries was $\$ 594.8$ millions or 2.6 per cent more than the former peace-time high of $\$ 579.8$ millions reached in 1948. Except for soaps, cosmetics, adhesives and vegetable oils, the production and domestic consumption were greater than in any other year. Shipments for export, however, were 11.4 per cent lower than in 1948.

Ten of the 14 industries in this group showed substantial gains in output in 1949 compared with the previous year. The percentage increases were as follows: coal tar distillation, 17.7; polishes, 15.1; primary plastics, 14.4; medicinals, 11.1; miscellaneous, 8.1; compressed gases, 4.7; fertilizers, 5.9 ; inks, 5.9 ; heavy chemicals, 2.6 ; and paints, 1.7 . Output from the soaps industry declined 4.9 per cent, adhesives dropped 20.1 per cent, vegetable ails about 12.4 per cent, and toilet preparations, 1.6 per cent.

In the entire group in 1949 there were 1,000 plants with 40,500 employees and aggregate payroll amounting to $\$ 95.8$ millions. The 513 works in Ontario accounted for 52 per cent of the employees and 56 per cent of the production, and the 326 establishments in Quebec accounted for 37 per cent of the workers and 44 per cent of the output value. British Columbia had 66 plants with an aggregate output of $\$ 49$ millions.

Imports of chemicals and allied products rose 10 per cent in 1949 to $\$ 130.6$ millions, the gains being mainly in drugs and pharmaceuticals, cellulose plastics, fertilizers and in miscellaneous chemicals. Purchases from the United States were worth $\$ 115 \mathrm{millions}$ or 88 per cent of the total value, and purchases from the united Kingdom amounted to $\$ 8.4$ millions or 6.5 per cent of the total. Imports from France were worth $\$ 1.8$ millions, from Switzerland, $\$ 1.1$ millions, and from Germany $\$ 1.0$ millions. Ten years ago the value of imports from all countries was $\$ 51.8$ millions and in 1930 it was $\$ 36.8$ millions.

Exports declined again for the third successive year, the value for 1949 being $\$ 70.7$ millions compared with $\$ 79.8$ millions in 1948 and $\$ 83.8$ millions in 1947 . Fertilizers at $\$ 39.4$ millions accounted for 56 per cent of the total exports. Synthetic resins were of next importance at $\$ 4.9 \mathrm{millions}$, then sodium compounds at $\$ 4.2$ millions, medicinals, including penicillin and streptomycin at $\$ 3.8$ millions, acids at $\$ 2.7$ millions, calcium compounds at $\$ 1.9$ millions, and pigments and colours at $\$ 1.2$ millions.

Canada's chemical and allied industries have shown impressive growth in the past decade. Since 1940 there has been a threefold increase in output value, from $\$ 194$ millions to $\$ 595$ millions, but probably as much as one-half of this gain was due entirely to increases in commodity prices. The index of volume of production has advanced over this period from 120.1 to 182.2 , indicating a physical expansion in output of approximately 51 per cent. Forecasts on capital expenditures by firms in this field indicate that $\$ 34.6$ millions will be spent on new buildings and equipment in 1950 and a further $\$ 22.1$ millions on maintenance and repairs of capital equipment.

Employment in the chemical industries increased from 27,682 in 1940 to 40,506 in 1949, and paymints in salaries and wages advanced from $\$ 38.6$ millions to 395.8 millions. From the employment standpoint the medicinals industry was most important in 1949 with 8,099 workers; the miscellaneous industry was next with 6,719 persons on its payrolls; then heavy chemicals with 6,036 employees; paints with 5,501, and soaps with 3,659.

TAbIE 1 - PRINCIPAL STATISTICS FOR THE MAMUFACTLRE OF CHEMICALS AND ALIIED PRODUCTS, BY INDUSTRIES, 1c48 and 1949

| Industry | Number of plants | Average number of employees | $\begin{gathered} \text { Salaries } \\ \text { and } \\ \text { wages } \\ \hline \end{gathered}$ | Cost of fuel and electricity at works | Cost of materials at works | Gross selling value of products at works |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1948 No. No. (O00's of dollars) |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Coal tar distillation | 11 | 380 | 882 | 543 | 5,076 | 8,077 |
| Heavy chemicals | 29 | 5,889 | 15,348 | 7,753 | 22,552 | 70,600 |
| Compressed gases | 45 | 1,156 | 2,613 | 404 | 2,181 | 11,314 |
| Fertilizers | 33 | 3,169 | 8,016 | 2,228 | 30,043 | 63,986 |
| Medicinals and pharmaceuticals | 215 | 7,641 | 15,415 | 694 | 26,576 | 71,714 |
| Paints and varnishes | 114 | 5,558 | 12,341 | 617 | 44,437 | 81,279 |
| Soaps and washing compounds | 149 | 3,351 | 8,125 | 895 | 38,840 | 67,587 |
| Toilet preparations | 90 | 1,658 | 2,750 | 70 | 6,539 | 17,045 |
| Inks ...... | 32 | 642 | 1,712 | 72 | 3,834 | 8,288 |
| Vegetable oils | 16 | 819 | 1,885 | 426 | 51,391 | 63,673 |
| Adhesives .... | 25 | 771 | 1,830 | 356 | 4,701 | 8,660 |
| Holishes and dressings | 53 | 723 | 1,405 | 69 | 5,183 | 10,080 |
| Plastics (primary only) | 12 | 1,149 | 2,771 | 332 | 7,630 | 16,441 |
| Mscellaneous (*) | 202 | 6,642 | 14,234 | 3,508 | 44,058 | 81,082 |
| total . ............ | 1,026 | 39,548 | 89,327 | 17,967 | 293,041 | 579,826 |

1949

| Coal tar distillation | 11 | 419 | 1,141 | 551 | 4,749 | 9,504 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Heavy chemicals | 28 | 6,036 | 16,469 | 7,491 | 26,072 | 72,440 |
| Compressed fases | 48 | 1,206 | 3,143 | 418 | 1,929 | 11,845 |
| Fertilizers | 31 | 3,108 | 8,469 | 2,148 | 31,229 | 67,740 |
| Medicinals and pharmaceuticals | 216 | 8,099 | 17,366 | 722 | 27,826 | 79,685 |
| Paints and varnishes ........ | 109 | 5,501 | 12,769 | 619 | 43,109 | 82,648 |
| Soaps and washing compounds .. | 144 | 3,659 | 8,394 | 475 | 33,478 | 64,281 |
| Toilet preparations | 82 | 1,650 | 2,813 | 62 | 6,518 | 16,877 |
| Inks | 31 | 698 | 1,896 | 63 | 3,909 | 8,778 |
| Vegetable olls | 16 | 794 | 1,951 | 439 | 46,619 | 55,802 |
| Adhesives | 23 | 696 | 1,603 | 339 | 4,010 | 6,933 |
| Polishes and dressings | 43 | 764 | 1,585 | 75 | 5,680 | 11,606 |
| Plastics (primary only) | 11 | 1,157 | 2,931 | 347 | 10,338 | 18,805 |
| Miscellaneous (*) | 208 | 6,719 | 15,252 | 3,526 | 42,405 | 87,678 |
| TOTAL . . . . . . . . . | 1,001 | 40,506 | 95,782 | 17,275 | 287,871 | 594,622 |

(k) Includes explosives, hardwood distillation, insecticides, matches, dry colours, etc.

Table 2 - PRINCIPAL STATISTICS FOR THE MANUFACTURE OF CHEMICALS AND ALIIED PRODUCTS, BY PROVINCES, 1948 and 1949

| Province | Number of plants | Average number of employees | Salaries and wages | Cost of fuel and electricity at works | Cost of materials at works | Selling value of products at works |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1948 | No. | No. |  | CoO0's of | lars) |  |
| Prince Edward Island and Nova Scotia ... | 17 | 383 | 739 | 146 | 4,545 | 6,864 |
| New Brunswick ...... | 7 | 174 | 374 | 59 | 3,500 | 4,687 |
| Quebec | 337 | 14,515 | 31,229 | 4,862 | 79,101 | 170,377 |
| Ontario | 523 | 20,538 | 47,817 | 11,215 | 167,965 | 322,676 |
| Manitoba | 38 | 724 | 1,343 | 111 | 6,496 | 11,610 |
| Saskatchewan | 11 | 170 | 333 | 46 | 4,118 | 5,141 |
| Alberta | 21 | 491 | 1,131 | 636 | 3,878 | 8,882 |
| British Columbia .... | 72 | 2,553 | 6,361 | 892 | 23,438 | 49,589 |
| CANADA ....... | 1,026 | 39,548 | 89,327 | 17,96? | 293,041 | 579,826 |



## 1949

Prince Edward Island

| and Nova Scotia ... | 17 | 361 | 764 | 135 | 4,298 | 7,182 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New Brunswick | 7 | 145 | 354 | 64 | 3,446 | 4,520 |
| Quebec | 326 | 15,022 | 33,783 | 5,114 | 80,712 | 170,577 |
| Ontario | 513 | 21,062 | 50,938 | 10,380 | 163,501 | 336,127 |
| Manitoba | 42 | 749 | 1,514 | 120 | 7,481 | 13,062 |
| Saskatchewan | 11 | 147 | 357 | 49 | 4,115 | 5,575 |
| Alberta | 19 | 550 | 1,446 | 1,077 | 3,015 | 8,710 |
| British Columbia | 66 | 2,470 | 6,626 | 336 | 21,305 | 49,069 |
| CANADA | 1,001 | 40,506 | 95,782 | 17,275 | 287,871 | 594,622 |

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