 DEPARTMENT OF TRADE AND COMMERCE DOMINION BUREAU OF STATISTICS CENSUS OF INDUSTRY

REPORT<br>on the<br>LINSEED OIL INDUSTRY

in

CANADA
1928

Published by Authority of the Hon. James Malcolm, M.P.,
Minister of Trade and Commerce

OTTAWA

1929


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## Firms engaged in the Innseed 011 Industry in Canada

 1928.Canada Linseed O11 Mills, Ltdi, Dominion Linseed Oil Co. Ltd.

Shurwinmwilliams Co. of Canada, Itd. Dominloa Linsead 011 Co. Itd. Canada Linseed 011 Kills, Ltd: Dominior Linseed Ofl Co. Lta. Sherwin-Tilliams Co. of Canada, Itd.. Alberta Linseed Oil Co. Ltd.

2210 Notte Dame St. E.Montreal, Que.
31 M111 St: n "
897 Centre st: " "
Baden, Ontario.

40 Wabash Avenue, Toronto 3. Ont.
St. Boniface, Manitoba
110 Sutherland St. Winnipeg. Manitoba.
Medicine Hat, Alberta.


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Dominion Statistician:
Chief, Census of Industry:
R. H. Coats, B.A., F.S.S., (Hon.), F.R.S.C.
J. C. Macpherson.

## RgPORT ON THE LINSEED OIL INDUSTRY IN CANADA, 1928

Ottawa, May, 1929. The statistics of the Iinseed Oil Industry in Canada for the calendar year 1928 are presented in this report. The mumber of individual plants operating during the year was 8 located by provinces as follows: Qubbec 3. Ontario 2, Kanitoba 2, and Alberta 1. In order that information relating to individual plants may not be disclosed the statistics by provinces are omitted and only those for the Dominion given throughout the tables of this report.

## Principal Statistics

A comparative sumary of the principal statistics of the industry is presented in Table 1, for the calendar years 1927 and 1928.

Table 1. Principal Statistics compared 1927 and 1928.

| Items |  | 1928 | 1927 |
| :---: | :---: | :---: | :---: |
| Tratablishments reporting | No. | 8 | 8 |
| Canital Investment | \$ | 2.394.331 | 2,341,733 |
| Enployees on salaries- |  |  |  |
| Kale Fomale | No. | 32 | 28 |
| Total salaries | \$ | 90,267 | 7.659 |
| Einployees on mages - |  |  |  |
| Male | No. | 197 | 205 |
| Female | No. | 1 | 1 |
| Total wages | \$ | 232,304 |  |
| Cost of fuel and electricity | \$ | 59,815 | 65.905 |
| Power equipment |  |  |  |
| Units | No. | 116 | 106 |
| H.P. capacity | E.P. | 1.997 | 1,850 |
| Cost of materials | \$ | 5,514,568 | 4,840,168 |
| Gross value of products | \$ | 6,281,055 | 5,839,314 |
| Nut value of products | \$ | 766,487 | 999,146 |

Production Statistics, 1928.
The quantity and the selling value at the mill or factory of the various comodities manufactured in the Dominion during the calendar years 1927 and 1928 are shom in Tablo 2, Increases occurred in the quantity of Linseed 0il, boiled and raw, refinod special oils and oil cake meal, whilist oil cake alone shows a decrease as in the sumary table below.

| Prouncts |  | 1927 | 1928 | + Increasc <br> - Decrease |
| :---: | :---: | :---: | :---: | :---: |
| Linseed oil, ram | Imp. Gals. | 3,112,520 | 3,388,583 | \& 276,063 |
| Linsced oil, boiled | 111 | 1,062,955 | 1,067,770 | + 4.785 |
| Oil cake | tons | 5,988 | 4,714 | - 1,274 |
| 0.1 cake meal | - | 35,349 | 42,192 | $\pm$ 5,343 |
| Soucial refined oils | Imp. Gals. | 69!,837 | 754,258 | 7 62,421 |

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In riew of the tendency towards concontratioy in industrial enterprises, a series of tables has been prepared presenting ill a threeziold way the size of establishments in the industry measured by (a) canital invortment, (b) eross value of production and (c) employment, all within certair specirind groups or limitations for the calendar year 1927 and 1928. The tables furtrer indicate the morement of capital, production and employment within the industiy.

In 1928, the number of establishmerta reporing was 8, with a total capital investment of $\$ 2,394,331$, a total geoss value of rwiuction of $\$ 6,281,055$ and a total amployment of 235. Of the total number of establishments 6 had a capital investment of $\$ 2,218,097$ or 92.7 per cent of the total invastment and an average invostmont of $\$ 369,683$ por establishment; 6 establishments hac a gross value of production amounting to $\$ 5.435 .687$ or 86.5 per cent of the total production and an avorago production of $\$ 905.948$ por arteblishmont. In employmont 7 stablishmonte had 220 pernorn on thoir payrell or 93.1 por cont of the tatal number amployed and an average emplogment of 31 per establishmant.

## In 1927, the number of establishments reporting was 8 with a total capital

 emplagmat of 239 . Of the total number of ostablishments 6 had a oapital investment of $\$ 2.167 .154$ or 92.54 per cent of the total investment with an average investment of $\$ 361,192$ per establishment. In gross value of production 6 establishments had a total production of $\$ 5,190,050$ or 88.88 per cent of the total for the industry and an average production of $\$ 865,008$ per establishment. In amployment 7 establishments had a total payroll of 225 or 94,13 per cent of the total number employed and an average employment of 32 per establishment.
(a) Capital invostod in establishments grouped according to value, 1927 and 1928

| Groups of value of capital | 19.3 |  |  | 1927 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Istab-1ishments | capi.tal <br> investec | Average capi.tel | Estabs lishments | Capital <br> invested | Average capital |
| Under \$200,000 $\$ 200,000$ and over | NNO. <br> ? | $\begin{array}{r} 6 \\ 175,234 \\ 2,218,097 \end{array}$ | 85,117 <br> 559683 | 170. $\begin{array}{r}2 \\ 6 \\ \hline\end{array}$ | $\begin{array}{r} \$ \\ 174,579 \\ 2,167,154 \\ \hline \end{array}$ | $\begin{gathered} \$ \\ 87,289 \\ 361,192 \end{gathered}$ |
| TOTAL | 3 | , 304.332 | 259,291 | 9 | 2,341.733 | 292,716 |

(b) Gross value of production in estebjivincents grouned according to valuo, 1927 and:-928

| Groups of value of Production | 1929 |  |  | 1927 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Estab-lishments | cross Valug of Brociuctior | $\begin{aligned} & \text { Averape } \\ & \text { Volue of } \\ & \text { Produe- } \end{aligned}$ | $\begin{aligned} & \text { Mstab- } \\ & \text { Insh- } \\ & \text { ments } \end{aligned}$ | Gross <br> Value <br> of Produc- <br> tion | Average <br> Value <br> of Produc <br> tion |
| $\$ 200,000$ to under $\$ 500,000$ $\$ 500,000$ and over | No. 2 | $\begin{gathered} 8 \\ 8!+5.368 \\ 5.435 .68 \\ \hline \end{gathered}$ | $\begin{array}{r} 3 \\ 10.554 \\ 905,38 \end{array}$ | 170. $\begin{array}{r}2 \\ 6 \\ \hline\end{array}$ | $\begin{array}{r} \$ \\ 649,264 \\ 5,190,050 \\ \hline \end{array}$ | $\begin{gathered} \$ \\ 324,632 \\ 865,008 \end{gathered}$ |
| total | 8 | 5,2\%1,055 | $755,-2$ | 8 | 5,839,314 | 729,914 |

(c) Imployees in establishmonts grouper by nuwier, 1927 and 1928

| Groups of mployeos | 1923 |  |  | 1927 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Estab- } \\ & \text { lish- } \\ & \text { menis } \end{aligned}$ | To to. <br> -av! oyocs | $\begin{aligned} & \text { Aromese } \\ & \text { arlocoes } \end{aligned}$ | ITstay ! - shuc:nts | inotal <br> IEmployees | Avorage Fraplayeos |
|  | No. | \%o. | $\because$ | 10. | 2io, | 170. |
| Tinder 20 employoes | 1 | -5 | 15 | 1 | 1.4 | 14 |
| 20 to under 60 employees | 7 | 220 | 2 | $?$ | 225 | 32 |
| tocat | S | 43\% | 89 | S | 2.39 | 30 |

## Production Statistics - Contid.

Then values of production are compared inctedses appear in raw linseed oil of $(\$ 153,7+6)$ oil cake meal of $(\$ 288,512)$ refined and special oils of $(\$ 68,814)$. The only items of production showing decreases in value were oil cake amounting to $\$ 60,455$ and linseed oil, boiled of $(\$ 25,941)$. The net increase in production over 1927 amounted to $\$ 441,741$ inclusive of by-products amounting to $\$ 17,068$.

Table 2. Production, by Quantity and Value, 1928.

| Classes of Froducts | Unit of Measure | Quantity | Selling Value at M11 |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Linseed oil, raw | Imp. Gal. | 3,388.583 | 2,689,551 |
| Lirseed oil, bollod |  | 1,067.770 | 842,283 |
| Aefined and shectal ofls | 11 | 754,258 | 678,109 |
| 011 cake | Ton | 4.714 | 198,214 |
| Oil cako meal | " | 42,192 | 1,855,833 |
| Aill other products | - | - | 17.065 |
| Total value of products. |  | - | 6.281.055 |

Capital Investment

The arnount of capital invested in the linseed oil industry in Canada is shown in Table 3, under two heads:- Fixed capital which includes land,buildings, machinery and tools and working capital which comprises materials and supplies on hand, stocks in process, finished products on hand and cash, trading and operating accounts, etc. Fixed canital shows an increase of $\$ 6,271$ wher compared with 1927. Working capital also shows an irecease mounting to $\$ 46,327$ over the mount reported for the previous year.

Table 3. Capital invested, by Provinces, 1928.

| Isans of Canital | Canada | Quebec | Other <br> Provinces |
| :---: | :---: | :---: | :---: |
|  | \$ | \$ | \$ |
|  |  |  |  |
| Inds, building etc. ) <br> Wachinery and tools ) | 1,345,137 | 680.723 | 664,414 |
| Forizing capital - |  |  |  |
| Werticis and stocks on hand | 676,313 | 331,380 | 344,933 |
| cash, trading and operating accounts, etc. | 372,881 | 166,847 | 206,034 |
| Total working capital | 1,049,194 | 498,227 | 550,967 |
| Grand Total of Capital | 2,394,331 | 1,178,950 | 1,215,381 |

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## Erroloyment Statistics

Statiotics of employment for the calendar year 1928 are shown under the tree following heads: - (a) Employees iy sex and remuneration; (b) employees by months and (c) woring time of plants and employees. Table 4 presents statistics of employment by classes sex and remuneration by provinces. Compared with 1927 there was a decrease in the rotal maber ermployed in the industry of 4 but an increase of \$ $\$ 24,169$ in the payments for salariue and mages.

Trole 4. mployees, Salaries and Wages, by Provinces, 1923.

| Classes of exployees by sex |  | Canada | Quebec | Otrer <br> Provinces |
| :---: | :---: | :---: | :---: | :---: |
| S 1:rjed employees - |  |  |  |  |
| Male | No. | 32 | 12 | 20 |
| $F \mathrm{Fmal}$ o | No. |  | 1 | 4 |
| Total salaries | \$ | 90,267 | 49,301 | 40.966 |
| E.ployees on wages, average \%o.- |  |  |  |  |
| Mile | No. | 197 | 98 | 99 |
| Female | No. |  | 1 |  |
| Total wages | \$ | 232,504 | 117.368 | 115,135 |
| Total male employees | No. | 229 | 110 | 119 |
| Total female employees | No. | 6 | 2 |  |
| Total salaries and wages | \$ | 322,771 | 166,669 | 156.102 |

Enployment by months; - The number of persons entered on the payroll during each month of the year is shown by sux in Table 5. The months of highest employmont were i.overnber and December, and those of lowest employment July to September. Th avorage conthly employment was 198 of which males numbered 197 and fomales 1 . This reprosents a decrease in the monthly average employment of 8 when compared with 1927.

Table 5. Fiployment by Months, 1928.

| Wriths | No. of Imployees |  | Months | No. of Emoloyees |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Lale | Female |  | Male | Fomale |
| Jamary | 201 | 1 | July | 187 | 1 |
| Sebruary | 199 | 1 | August | 187 | 1 |
| Lurch | 201 | 1 | September | 185 | 1 |
| dril | 203 | 1 | October | 195 | 1 |
| $\because \mathrm{V}$ | 198 | 1 | November | 203 | 1 |
| Tune | 191 | 1 | December | 206 |  |
| Total employment during year |  |  |  | 2.356 | 12 |
| Average exployment per month |  |  |  | 197 | 1 |

Working time:- Table b shows the operating time of plants under three heads (a) full tine, (b) part time and (c) idle, and also the average hours of labour worked by entloyees per day or shift and per week. The averace operatinc time of plants in the industry whether on full or part time was 297.88 dias and the average hours of labour rere 9.38 per day and 54.12 per week.

Table 6. Working time of Plants and Employees, 1928.
Number of plants reporting
Diys in operation on full time on part time idle
Raricing tine of employces per diy or shift per meok

| Tetal | 8 |
| :---: | :---: |
| 2,248 | 281.00 |
| 135 | 15.85 |
| 49 | 6.12 |
| 75 | 9.38 |
| 433 | 54.12 |

## Qther Buloyment Statistics

The number and percentage of wage-earners in months of highest employment working specified hours per day is shown in Table 7 for the Dominion as a whole. For the Dominion, the number working specified hours was distributed between the classes, the percentage working 8 hours being highest, with nearly 31 per cent of the total employment.

Table 7. - Hours worked by wage-earners in month of highest employment. 1928.

|  | Wage-earners in month of highest employment morking <br> Der day of <br> 8 hours 9 : 10 Over 10 |  |  |  | Percentage of wageearners norking per day of |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & 8 \text { hours } \\ & \text { or less } \end{aligned}$ | $\begin{gathered} 9 \\ \text { hours } \end{gathered}$ | 10 <br> hours | Over 10 hours | $\begin{aligned} & 8 \text { hours } \\ & \text { or less } \end{aligned}$ | $\begin{gathered} 9 \\ \text { nours } \end{gathered}$ | 10 hours | Over 10 hours |
|  | No. | No. | No. | No. | p.c. | p.c. | p.c. | p.e. |
| CANADA | 69 | 53 | 39 | 63 | 30.80 | 23.66 | 17.41 | 28.13 |

The number of hours worked per day in the month of highest employment and the standard working hours per weok are shown for the Dominion in Table 8. It should be noted that whilst the statistics relating to hours of labour in columns 1.2 and 3 are based on figures compiled for the month of highest employment, those in columns 4 and 5 represent the total and average of standard weekly hours of labour for the number of establishments reporting to the Bureau. For this reason the relation between dally and weekly hours of labour is to some extent impaired. The average dally hours of labour on the above basis was for the Dominion 9.29, whilst the average standard meckly hours worked out at 54.12 per plant.

Table 8. - Hours of Labour per day and per week, 1928.

|  | Total dally hours and number of wageearners in month of highest employment |  |  | Standard morking hours per week |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total Hours | Tuge-ournors | Averaie hours sper day per nage-earner | Total | Average |
|  | No. | No. | No. | No. | No. |
| CANADA | 2,081 | 224 | 9.29 | 433 | 54.12 |

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## Hel Consumption

The quantity and cost value of the fuel consumed by the industry during the year is shown in Table 9, by classes. The total cost of fuel was $\$ 18,828$ and of this totel bituminous coal accounted for $\$ 16,234$ or nearly 87 per cent.

Table 9. Fuel used, by Classes, 1928.

| Classes of fuel |  | Quantity | Cost Value at Mill or Factury |
| :---: | :---: | :---: | :---: |
| 3ituminous coal | Ton | 2,374 | 16, ${ }^{\text {\$ }} 34$ |
| Lienite coal | Ton | - 409 | 16,234 1,764 |
| Gosoline | Gal. | 950 | 1. 246 |
| Gas, natural | m. c. ft. | 2,304 | 538 |
| All other | - |  | 46 |
| Total cost of fuel |  | - | 18,828 |

## Power Installation

The power installed in the industry in 1928 is shown by kind, number of units and horse-power according to manufacturers rating in Table 10, Primary power installation Fias represented by 4 units of steam engines with a total rated h. p. capacity of 17 and 3 hydraulic turbines or water wheels of 100 horse poner. Secondary power was represented by 109 motors of a rated h.p. capacity of 1,880 . The cost of electricity purchased during the year was $\$ 40,987$. The number of boilers installed was 11 with a rated h.p. capacity of 849 .

Table 10. Power installed, 1928.

| Kinds of Power | Number of Units | Horse -power according to manufacturers' rating |
| :---: | :---: | :---: |
| Stear: Engines and Turbines | 4 | 17 |
| Sydraulic turbines or water wheels | 3 | 100 |
| Total primary power | 7 | 117 |
| iliectric motors operated by purchased power | 109 | 1.880 |
| Total power used in manufacturing | 116 | 1.997 |

## Materials Used.

The various items of materials used in the industry is given by provincos in mable 1.1. for the calendar year, 1928.

Table 11. Materials used by provinces, 1928.

| Principal Materials | CANADA |  |
| :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Quantity } \\ & \text { Bushels } \end{aligned}$ | $\begin{aligned} & \text { Cost Value } \\ & \$ \end{aligned}$ |
| Maxseed Sontainers, etc. A 11 other materials | $2,592,787$ | $\begin{array}{r} 5,235,104 \\ 115,651 \\ 163,813 \end{array}$ |
| TOTAL | - | 5.514 .568 |

## RAPORT ON THE LINSEBD OII IN CANADA, 1928. <br> IMPORTS AND IXPORTS

Imports of flax sced, oils and oilcake and meal, for consumption in Canada are Stion in Table 12. by quantitios and values and by principal countries for the calondor yuar 1928. The total value of imports for consumption in Canada fell from $\$ 741,885$ in 1927 to $\$ 628,673$ in 1928, whilst exports incroased from $\$ 5,331,439$ in 1927 to $\$ 6,554,352$ in 192. According to the "Ronthly Bulletin of Agricultural Statistics" the production of flax seed in Canada fell from 5,994,700 bushols valued at $\$ 9,688,000$ in 1926 to $4,864,600$ bushols valued at $\$ 7,562,000$ in 1927 , a decrease of $1,110,100$ bushels and , $2,126,000$ in value.

Toblo 12. Imports asid Exports of Flaxseed, Lindseed $0 i l$ and Oilcako and Meal, 1928.

| articlos by Countrios | Imports |  | Exports |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Quantity $1 b$. | Value $\$$ | Quantity gal. | $\begin{gathered} \text { Volue } \\ \$ \end{gathered}$ |
| Wiax or linseed oil boilcd or raw - <br> United Kingdom <br> Unitod States <br> Other Countrics | $\begin{array}{r} 733,957 \\ 442,011 \\ 273,291 \\ 18,655 \end{array}$ | $\begin{array}{r} 67,969 \\ 31,350 \\ 34,652 \\ 1,967 \end{array}$ | $\begin{aligned} & 5,892 \\ & 4,159 \\ & 1,733 \end{aligned}$ | $\begin{aligned} & 4,347 \\ & 3,444 \\ & 1,403 \end{aligned}$ |
| Flanseed, n. o.p. <br> Bush. <br> United Kintedon <br> Unitod States <br> Argentina <br> Othor Countries | $\begin{array}{r} 299.737 \\ 179 \\ 7 \\ 299.105 \\ 446 \end{array}$ | $\begin{array}{r} 541,558 \\ 1,282 \\ 24 \\ 538,910 \\ 1,342 \end{array}$ | $2,948,275$ $2,948,275$ $=$ | $\begin{gathered} 5,589,527 \\ 5,589,527 \end{gathered}$ |
| Iinsuad ollcake and neel- <br> United Kinsdom <br> Unitod States <br> British Wost Indies <br> Nothorlands <br> Other Countries | $\begin{aligned} & 4,903 \\ & 4,903 \end{aligned}$ | 19,146 19,146 | $\begin{array}{r} 444,191 \\ 12,320 \\ 269,767 \\ 112,338 \\ 42,696 \\ 7,070 \end{array}$ | $\begin{array}{r} 1,059,978 \\ 29,000 \\ 624,536 \\ 285,135 \\ 102,046 \\ 19,261 \end{array}$ |
| Srund Totol, Valuc of Imports and Exports | 3 | 628.673 | - | $6,654.352$ |

Consurption of Flaxseed, Linseed Oil and Oilcake, 1928.
The consumption of the corradities referred to in the foregoing table is shom ia Table 13. In order to compare the statistics of linsced oil, the quantity imported ha:s boon converted into gallons at the rate of 9.35 lb . to the gallon of a stated mucific gravity, Whilst the production of flax soed is ropresentative of tho crop of 1927.

Tablo 13. Consumption of Flaxseed, Iinseed Oil and Oilcake and Meal, 1928.

|  | Flaxseed |  | Linseed oil, boiled or raw |  | Oilcake and Meal |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Quaitity Bush. | Value | Quantity dilions | Value \$ | Quantity Ton. | $\begin{gathered} \text { Value } \\ \hline \end{gathered}$ |
| Production Iraports | $\begin{array}{r} 4,604,600 \\ 299.737 \\ \hline \end{array}$ | $\begin{array}{r} 7.562,000 \\ 541,553 \\ \hline \end{array}$ | $\begin{array}{r} 4,456,353 \\ 78,498 \\ \hline \end{array}$ | $\begin{array}{r} 3.531,834 \\ 67.969 \\ \hline \end{array}$ | $\begin{array}{r} 46,906 \\ 245 \\ \hline \end{array}$ | $\begin{array}{r} 2,054,047 \\ 19.146 \\ \hline \end{array}$ |
| TOTAL <br> less txparts | $\begin{aligned} & 5,104,337 \\ & 2,940,275 \end{aligned}$ | $\begin{aligned} & 8,103,558 \\ & 5,569,527 \end{aligned}$ | $\begin{array}{r} 4,534,251 \\ 5,092 \end{array}$ | 3.599 .803 4.847 | 47.151 22,209 | $\begin{aligned} & 2,073,193 \\ & 1,059.97 \end{aligned}$ |
| Availablo for <br> Cnsumptio.. | 2,236,062 | 2,514,031 | 4,525,959 | 3.594 .956 | 24.942 | 1,013,215 |


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[^1]:    $\because$

