Dominion S̄tátistician: $R$ 。H, Coats, BoA, F.S.S. (Hon.), F, R.S.C.<br>Mining, Metallurgical and Chemical Branch<br>Chief: W. H. Losee, B.Sc.

 ITME 1931.


Lime production in Canada during 1931 amounted too 344,785 tons valued at $\$ 2.764,415$ as compared with 490,802 tons valued at $\$ 4,038,698$ in 1930 , according to finally revised statistics issued by the Mining, Lietallurgical and Chemical Branch of the Dominion Bureau of Statistics at. Ottawa. Canadian producers received an average o: \$7.38 per ton for quicklime and \$10.71 for hydrated lime in 1931 as against $\$ 7.68$ $\mathrm{fos}_{\text {s }}$ quicklime and \$11, 30 per ton for hydrated lime during 1930 ,

Lime used in chemical or metallurgical processes employed in the pulp and paper industry, smelting, iron and steel mills, sugar refineries and other industries amounted to 221,305 tons or 641 per cent of the total lime production. Of this tonnage the pulp and paper industry consumed 79,893 tons valued at. $\$ 569,258$; this represents 36,1 per cent of the lime used for chemical purposes.

A bulletin issued by the Department of Mines, Ottawa, gives the following information regarding limes.
"Lime up to 20 pounds per ton of ore is used in the selective flotation of copper, lead, molybdenite and graphite, and in the cyanide process of extracting gold and silver from their ores from 3 to 5 pounds of lime per ton of ore is added to the solution. The lime for these uses mast be made from a high -calcium limestone; for use in cyanide mills it must, be absolutely free from charecial and coke. In the pulp and paper industry 200 pounds of lime is required if the milk-of-lime system is used; a further 130 pounds of lime is needed in bleaching each ton of sulphate pulp. The sulphate pulp process requires 500 pounds of lime per ton of pulp produced; for the making of a ton of bleached soda pulp about 600 pounder ne 11 me is required. In the two latter processes it is possible to recover most No the lime for further use. Tag paper requires from 120 to 250 pounds of lime petworldf rags, depending on the lind of rag used. Milk -of lime systems require a lime model from pore dolomite and it. must be free from dark coloured specks; the lime is user of thor bs quicklime or wrarate. A particularly pure limestone is required for the making of lime used in sugar refining, it should possess less than 1 per cent silica amd f per bent magnesia. Lime used in removing of hair from hides at tannerids thatydbe tow in content of iron oxides and magnesia: It should be free from grit and preferably be slow in settling. Bleaching powder is simply hydrated lime saturated with chlorine gas, the lime for this purpose must be white and high-calcium in composition and the magnesia content, less than $1 \frac{1}{2}$ per cent, iron oxide should be low. Bor the commercial. production of caustic soda a purer lime than that used in the pulp industry should be employed. Lime enters into nearly every common process of water treatment. A pure high calcium lime, practically free from iron, is necessary for bleaching and dyeing in the textile industry, ifme is also used in the hardwood distillation industry for the production of calcium acetate and in the sand-1ime brick industry in the mamfacture of sand-lime brick."

A Canadian Order-in-Comucil dated October 28, 1931, fixed the value for duty of lime (slaked or hydrated) ditjeble under tariff item 293, at $\$ 8$. 88 per ton at the point of prociucion hecordingly, "duanneg" of special duty becomes levishle
whenever the export or actual selling price of such lime to an importer in Canada is less than the value so fixed. Lime shipped on consignment without sale prior to shipment, so as to evade the payment of special duty, will be subject to the same special duty as if the goods had been sold prior to shipment.

Imports of lime into Canada during 1931 amounted to 568 tons valued at $\$ 10,561$ as compared with 2,096 tons worth $\$ 28,107$ in 1930 . Imports of calcium chloride not in solution for road treating purposes totalled $42,684,442$ pounds valued at $\$ 476,443$. Exports of lime totalled 14,425 tons worth $\$ 283,459$ as compared with 22,364 tons valued at $\$ 441,728$ in 1930。

PRINCIPAL STATISTICS OF THE LINE INDUSTRY IN CANADA, 1930 and 1931.


PRODUCTION OF LTME IN CANADA, BY PROVINCES, 1931, SHOWING PURPOSES FOR WHICH USED OR SOLD.


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FHODUCLION OF LIME IM CAFANA, SY PAOVTNGES, 1931, SHONING PURPOSES FOR WHICH USED OR SULD. (concluded)


QUICKLIME - concluded

- Dealers - uses unspeci--

| fied | tons | 1.788 | 6,441 | 10 |  | 480 | 8,719 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Other consumers | \$ | 23,820 | 56,160 | 80 | ... | 5,560 | 85,620 |
|  | tons | ○.. | 1,209 | 3 | -•• | 7,586 | 8,798 |
|  | \$ |  | 12.595 | 86 |  | 75,177 | 87.858 |
| TOTAL QUICKLITHE | tons | 22,951 | 101,186 | 113,376 | 21,631 | 20,364 | 279,508 |
|  |  | 134.747 | 720,049 | 842.274 | 172.836 | 195,078 | 2,064.984 |



