THE WILD MUSTARD MENACE AND ITS ERADICATION

Eradication Is Often Difficult as Seeds Several Inches Below the Surface Live for Years

Wild mustard (brassica arvesis) is one of the most common, annual weeds found in grain fields. The stems and leaves of the plant are rough and hairy. It usually grows to a height of from one to two feet and branches freely except when closely crowded. The flowers which appear early in June are of a bright yellow colour. Mustard is a prolific seed producer, as many as 15,000 seeds being produced on an average plant.

In the early part of the growing season mustard makes a very rapid growth and for a time grain fields that are badly infested appear to contain little else than mustard. After the blossoms have fallen this weed is scarcely noticeable and the grain crop which for a time seemed to have been crowded out, gradually recovers and soon appears to be growing normally. This accounts possibly for the belief among some farmers that mustard is not an injurious weed. It is reasonable to believe, however, that a vigorous growing plant like mustard when in competition with a crop must rob that crop of a considerable amount of moisture and plant food and consequently reduce its yield. This has proven to be true on the Central Experimental Farm at Ottawa where a heavy infestation of mustard, 904 plants per square yard, reduced the yield of oats by 26.7 bushels per acre or 37.6 per cent. On another plot where the infestation was 143 mustard plants per square yard the yield of grain was reduced from 66.3 bushels per acre to 47.4 or a loss of 28.5 per cent.

Eradication of mustard from badly infested land is very difficult as seeds lying several inches below the surface of the soil are capable of retaining their viability for many years without germinating. Experiments have shown that mustard seeds can germinate after having been buried in the soil for forty years. Mustard seeds which have been ploughed down in previous years may be brought to the surface by subsequent cultural operations. When a good seed bed is prepared for a grain crop, conditions are at the same time made ideal for the germination of mustard seed. With a hoed crop the young mustard plants can easily be killed by hoeing and cultivation but in grain this means of attack cannot be used. Since mustard matures seed earlier than the earliest grain crops there is no possibility of harvesting the grain before the mustard has reached maturity. Consequently it sheds its seed on the ground before the grain is harvested.

Control Measures

Although complete eradication of mustard in badly infested fields is extremely difficult certain control measures have been found quite effective.

1.—Hand Pulling—Mustard is easily pulled and when the infestation is not too heavy pulling the plants before they can produce seed is the best means of controlling this weed.

2.—Spring cultivation followed by late sown crops.—Mustard germinates very readily in the spring and early summer, consequently several crops of mustard may be killed by cultivation and still leave time to sow late crops like buckwheat, millet or barley. Buckwheat usually grows so rapidly that it completely smothers any mustard that germinates.

3.—Heavy seeding of Grain.—Heavy seeding of grain reduces the growth of mustard. This has been demonstrated by an experiment conducted for two years at Ottawa. In the first year of this experiment barley alone was seeded at 1, 2, 3 and 4 bushels per acre on land badly infested with mustard. When the crop was harvested the weeds were separated from the straw and threshed. The weights of mustard seed obtained from each of the plots was 97, 22, 23 and 7 pounds per acre, respectively. In the second year oats was used in addition to barley. The rates of seeding for oats were 1½, 2½ and 3½ bushels per acre, for barley, 1, 2 and 3 bushels per acre. The weights of mustard seed obtained from the oat plots were 20 12 and 16 pounds per acre from the barley plots 51, 33 and 8 pounds per acre respectively.

From the results obtained in this experiment oats seeded at the rate of 3½ bushels per acre and barley at 3 bushels per acre on land badly infested with mustard will appreciably reduce its growth.

4—Harrowing Grain Crops—Harrowing grain crops with a light harrow when the mustard is in the seedling stage is another means of control. his work must be done as soon as the mustard plants appear above ground. At this stage they are very easily killed but if harrowing is delayed until the mustard has developed its root system this treatment is not effective. The finger weeder is also a very satisfactory implement for killing mustard in grain crops.

5.—Shallow cultivation after a Hood Crop.—The frequent cultivation and hoeing which a crop of roots potatoes or corn usually received reduces greatly the infestation of mustard in the surface layer of soil. The usual practice, however, is to fall plough after these crops and then seed grain in the following spring When this is done the layer of surface soil which is comparatively free from mustard seed is ploughed down and mustard infested soil is brought to the surface. It would seem advisable, therefore, to eliminate ploughing after hoed crops and prepare a seed bed for grain by shallow cultivation in order to keep the weed free layer of soil on the surface. Unfortunately, where corn borer is present, fall ploughing is essential.

6.—Spraying Mustard in Grain Crop—Copper sulphate, iron sulphate, salt and sulphuric acid have been investigated at the Central Experimental Farm, Ottawa. The results show that one application of a 3 per cent solution of copper sulphate applied at the rate of 70 gallons per acre before the mustard comes into bloom, is the most effective chemical treatment. Spraying should be done during dry weather to be most effective. While spraying with copper sulphate is a most effective treatment for killing mustard it unfortunately injures the grain to some extent and slightly reduces the yield.

Sowing Clean Seed

An important method of preventing the spread of mustard which should not be overlooked is the use of clean seed. As mustard is frequently an impurity in clover and grass seed, care should be taken to prevent infestations from this source.

Other Methods of Control

1. Disking after harvest undoubtedly induces the growth of many mustard plants that are afterwards winter killed but it is not an effective means of controlling mustard.

2. Ploughing after the grain is harvested buries mustard seed but when it is brought to the surface again by subsequent cultivation it germinates

3. While mustard does not grow readily in hay or pasture these crops do not eradicate it. Mustard seed remains dormant while these crops occupy the land but as soon as it is brought under cultivation the mustard again appears

MINTO NEWS

(Special to The Daily Mail)

MINTO, N.B., July 30—Commemorating the memory of five persons who lost their lives in a mine tragedy here on July 28th, 1932, a Memorial Service was held in the Public Square yesterday by Rev. Mr. Petchey, of the Baptist Church and Rev. Father Doucette of the Holy Rosary Church.

On July 28th three years ago, this village was stunned by the swift tragedy which resulted in the death of Thomas Gallant and Vernon Betts, two miners, in their efforts to rescue three boys, Allan Gaudine, Vernon and Cyril Slock, brothers, who had started to explore a disuesd shaft on the property of the Miramichi Lumber Co., Ltd. Poison gas had accumulated at the bottom of the shaft, and the boys were rendered unconscious when they came in contact with it and fell to the bottom of the shaft which had a foot of water in it. The two other victims Gallant and Betts were also overcome when they descended the shaft, and before they could be removed from the pit ,had died from the gas fumes.

Mathias Whur, an employee of the Miramichi Lumber Co., descended the shaft seven times, each time bringing out one of the children or one of those who had previously gone down to their rescue.

He was adequately protected by a piece of gauze soaked in aromatic spirits of ammonia over his mouth and each time was unconscious when drawn to the surface.

Alex Tooke and Norman Brittain also rescued some of the victims, and these three were afterward commended by the Carnegie Society for their bravery and were presented with medals for their bravery.

Advertise in The Daily Mail. It Pays.

NOTICE OF SALE

To Robert C. Jewett, of the Parish of Chipman in the County of Queens and Province of New Brunswick, Locomotive Engineer, and Nellie Jewett, his wife, and to all others whom it may in any wise concern:

PUBLIC NOTICE is hereby given that under and by virtue of the Power of Sale contained in "The Property Act," Chapter 168, Revised Statutes of New Brunswick, 1927, and of the provisions contained in a certain Indenture of Mortgage, dated the sixteenth day of November, 1925, made between the said Robert C. Jewett and Nellie Jewett, his wife, of the first part, and the undersigned Leon W. Cliff, formerly of the City of Fredericton in the County of York and now of the Town of Presque Isle in the State of Maine, one of the United States of America, of the second part, and duly recorded in York County Records in Book 197, pages 351—354, as number 78034, the twenty-third day of November, 1925, there will, for the purpose of obtaining payment of the monies secured by the said Indenture of Mortgage, default having been made in the payment thereof, contrary to the provisions contained therein, be sold at Public Auction, in front of the Post Office in the City of Fredericton, in the County of York, on Saturday, the thirty-first day of August, next, at the hour of twelve o'clock noon, the lands and premises mentioned and described in the said Indenture of Mortgage as follows:

"All that certain lot, piece or parcel of land situate in the said Town of Devon (formerly the Village of Gibson), and described as follows: Lot number five, so called, in the survey of the Winnifred Jouett property by A. G. Beckwith at Monckton point and lying between Lots No. 4 and No. 6, and described as follows: Beginning at low water mark on the northeasterly shore of the River Saint John in the southwesterly angle of lot number four, thence running along the side line of No. 4 south 85 degrees East by the Magnet of 1868 forty rods or to the rear line of the Block, thence south seventy degrees west four rods to lot number six (allotted to Alonzo Jouett) thence along the side line of Lot No. 6 north 85 degrees west forty rods or to the River Saint John at low water mark, and thence along the same in a northerly direction up stream to the place of beginning, containing one acre, more or less, excepting the land from the Highway Road to the River Saint John, formerly part of the said above described lot." Being the same lot of land conveyed by Harry H. Pickard and wife to Beverly R. Jouett, by deed bearing date the eighth day of May, A. D. 1897, and registered in York County Records in Book D-5, page 200, the 8th day of July, A. D. 1897, and devised by the last Will and Testament of the said Beverly R. Jouett to the said Julia Taylor, formerly Julia Jouett, widow of the said Beverly R. Jouett, and Murray Jouett, by Will bearing date the eighth day of July, A. D. 1899, and registered in York County Records in Book K-5, at page 12, the ninth day of August, A. D. 1899. And being the same lot of land conveyed by Julia Taylor and James Taylor, her husband, to the said Robert C. Jewett, by deed bearing even date herewith.

Together with all and singular the buildings and improvements thereon, and the privileges and appurtenances to the same belonging.

Dated this 27th day of July, A. D. 1935.

LEON CLIFF,
Mortgagee

Mary C. King, Witness.
Hanson, Dougherty & West, Solicitors.

Daily Mail advertisements bring results.

HOME MERCHANTS

Home owned stores that The Daily Mail would like to see patronized.

AMUSEMENTS:
Gaiety Theatre.
Capitol Theatre.
Capital Billiard Parlor.

AUTOMOBILES:
Phillips & Pringle.
J. Clark & Son.
Capital Garage.

BEAUTY PARLORS:
Blue Orchid Beauty Shoppe
Nu-Art Beauty Salon
Idell's Beauty Shoppe

DRY CLEANING PLANTS
Fashion Plate Cleaners

DRUGGISTS:
Kenneth Staples.

DRY GOODS:
R. L. Black.
Joseph Kileel.

ELECTRICAL WORK.
Clarence Mills.
Harry C. Moore.

FARM MACHINERY:
J. Clark & Son.

FURS:
Mrs. Jennie Johnston

FLORISTS:
Bebbington's Gardens.

GROCERS:
Harold Yerxa, York Street.
A. E. Eardley.
A. T. Sweed.
M. M. A.

HABERDASHERS:
J. H. Fleming.

HARDWARE:
J. S. Neill & Sons, Ltd.
E. M. Young.

HOUSE FURNISHINGS:
Colwell & Jennings, Ltd.
Lemont's

HARNESS MAKERS:
H. A. Burtt.

HOTELS:
Waverly.
Queen.

INSURANCE:
H. H. Blair.

JEWELLERS:
Shute & Co.
Mavor Bros.

MEAT STORES:
York Meat Market.

MEN'S GOODS & SHOES:
Joseph Kileel.

PLUMBING:
Arthur F. Betts.

PHOTOGRAPHS:
Harvey Studio.

RESTAURANTS:
Lannan's.

STATIONERY & BOOKS:
C. W. Hall.
McMurray Book & Stationery Co., Ltd.
Mrs. A. M. Griffithe.

TAILORS:
T. M. Boyd
Karl Walker.

UNDERTAKERS:
The Chapel Funeral Home.
H. R Adams

WOODWORK:
J. C. Risteen Co., Ltd.

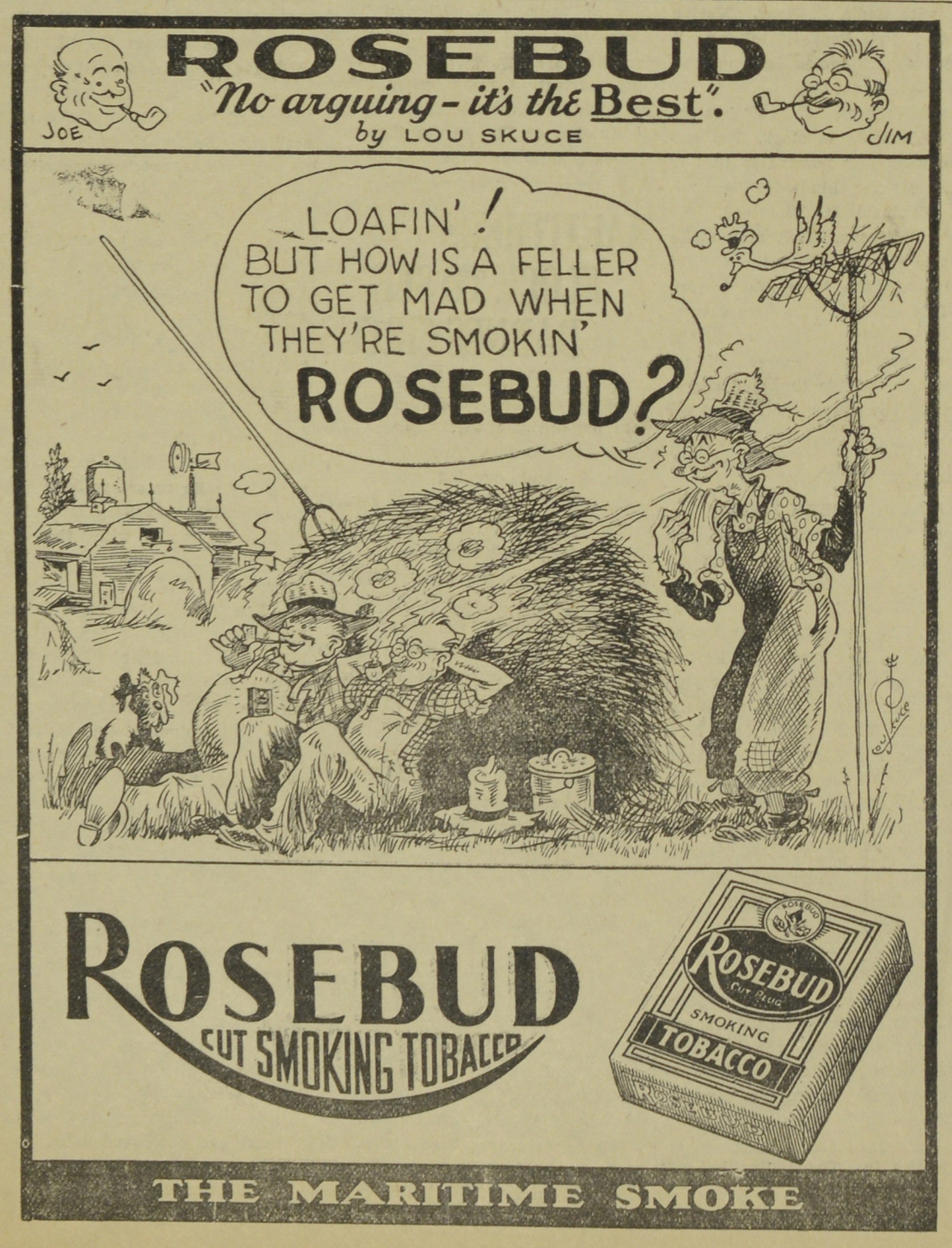
THE SKILLED MECHANIC

The skilled mechanic, the man who has been trained to do his job, is invaluable to a country. Our industries, our progress depend so much upon him. He has spent many of his most receptive years in intensive training. He is one of the great doers. One of the instructive things the Census tells us is the country of birth of the skilled mechanics.

There are 214,000 native-born Canadian males engaged in manufactuding and about 121,000 who were born in the British Isles. That is not three to one. In a highly specialized industry such as iron and its products, there are not two Canadians for every Old Country man, while in the non-ferrous metal products there are two men from the United Kingdom for every three Canadian born.

While there are 110,000 men from Great Britain in agriculture, that is only one for every seven Canadian-born in the same business, the proportion being smallest in the province of Quebec where it is one in 84, where as in British Columbia almost every second farmer is from Great Britain. There are three Canadian-born to one British immigrant in the construction business. On the other hand there are about 30 Canadian-born to every one man from the British Isles in forestry, fishing and trapping.

These figures show that the number of British immigrants in industries which require skilled help is out of all proportion to the number of Canadian-born, pro rata to population. One of several reasons for this may be found in the age distribution of Canada just before and shortly after the great immigration movement of the first decade of the century.



KELLOGG'S CORN FLAKES
3 packages 25c
NEW POTATOES — RASPBERRIES — BLUEBERRIES
TRY US WITH YOUR NEXT MEAT OR GROCERY ORDER
HAROLD YERXA
GROCERIES, MEATS AND FISH
PHONE 305 89 YORK STREET

- THE CAPITAL GARAGE -
— W. E. Vaughan, Proprietor —
QUEEN ST. FREDERICTON, N. B. CAMPBELL ST.
PHONE 206-21 OFFICE 206-41
Northern Electric Radios
Lacquer System of Painting Tires and Accessories of All Kinds
Johnson Outboard Motors and Boats
Weaver Automatic Brake Testing Service
DISTRIBUTORS FOR U.S.L. BATTERIES
Special Attention to Tourist Travel OPEN ALL NIGHT

INSURANCE
HOWARD H. BLAIR
RELIABLE BRITISH and CANADIAN COMPANIES
PHONES — Office 291-21
Residence 345-11
68 YORK STREET
—You Can Rest Assured—

FRESH VEGETABLES
All Varieties
Nature Tomatoes ,Cucumbers, Fresh Fruits, Rassberries, Blueberries, Georgia Peaches, New Apples, Cherries, California Plums, Oranges, Lemons, Grape Fruit, etc.
A. E. EARDLEY Phone 618 and Be Satisfied. Home-owned Store
Corner Brunswick and St. John Streets