



Cat No. 105

Forest plantation of Jack and Scotch pine, made by the provincial Forestry Branch in 1909, on a ridge in southern Ontario, where sand was blowing across the township road. The trees have stopped the sand from shifting, allowing a permanent road-bed. There are large areas of non-agricultural lands in every province of Canada, now devastated by repeated fires, but which would return large revenues, employ local labour and mean the establishment of local industries, if reforested, either naturally or by planting, and protected from destruction by fire.

Weed Education and Extermination

Systematic Action Being Taken in the
West to Eradicate Sow Thistle

The Department of Agriculture of Saskatchewan is making systematic efforts to exterminate the sow thistle, which has been making great headway in that province. The railways and municipalities are co-operating, the railways are supplying track motors while the government's experts direct the work. The *Regina Leader*, in commenting on the war against the sow thistle, said:

"The C. P. R., having the greatest mileage in the province, is doing the great share of the work in exterminating the weed on their right-of-way throughout the province. Every patch of sow thistle is charted, and the company has promised to report on it to the department from time to time, showing the means taken to eradicate it. "The thistle is dug, and when the green plants have been dried they are burned.

"To show just what little attention is paid to the weed, on the division Moose Jaw to Broadview, even the roadmaster did not know what a sow thistle was, and only one of his section foremen knew. They know it now, however. On the Kirkella division, which has been covered during this week, only two foremen knew anything about sow thistle. Mr. Pawley, who has charge of the work for the department, is taking pains to instruct the foremen in order that they may be capable of totally exterminating the very bad and undesirable weed from their sections.

"The C. P. R. officials are in thorough sympathy with the crusade of the department, and have promised to do everything they can to assist in the destruction of one of the worst weeds there is in Canada."

solid and liquid are about equal, while, with hogs, the amount of urine varies much according to the feed but is usually very abundant. Applying these facts to the above table, it will be seen that the nitrogen in the total urine of the cow would amount to over five times the nitrogen in the total solid dung, while, with horses and sheep, there would be about double the amount of nitrogen in the urine as in the solids. There is also much more potash contained in the urine of these animals than in the solids as is shown in the table.

Since nitrogen and potash are both expensive if the farmer has to buy them, it would be wise and profitable for every farmer to prevent their loss through the escape of the liquid manure. Straw is a good absorbent but if the crop is short, leaves, sawdust or air-dried muck may be used to advantage.

F. C. N.

For the Sake of the Trees

1. Don't throw your match away until you are sure it is out.
2. Don't drop cigarette or cigar butts until the glow is extinguished.
3. Don't knock out your pipe ashes while hot or where they will fall into dry leaves or other inflammable material.
4. Don't build a camp fire any larger than is absolutely necessary.
5. Don't build a fire against a tree, a log, or a stump, or anywhere but on bare soil.
6. Don't leave a fire until you are sure it is out; if necessary smother it with earth or water.
7. Don't burn brush or refuse in or near the woods if there is any chance that the fire may spread beyond your control, or that the wind may carry sparks where they would start a new fire.
8. Don't be any more careless with fire in the woods than you are with fire in your own home.
9. Don't be idle when you discover a fire in the woods. If you can't put it out yourself, get help. Where a forest guard or fire ranger can be reached, call him up on the nearest telephone you can find.
10. Don't forget that human thoughtlessness and negligence are the causes of more than half of the forest fires in this country, and that the smallest spark may start a conflagration that will result in loss of life and destruction of timber and young growth valuable not only for lumber but for their influence in helping to prevent flood, erosion, and drought.

Value of Liquid Manure

(Continued)

COMPOSITION OF DRAINAGE LIQUORS

One thousand pounds contain:

	Water	Nitro- gen	Phos- phoric Acid	Potash
	Pounds	Pounds	Pounds	Pounds
Drainage from utter behind milk cows.	932	9.8	2.4	8.8
Drainage from manure heap	820	15.0	1.0	49.0

Under average conditions the weight of urine from the cow will be about double that of the solid dung. With horses and sheep the

Selecting Seed Potatoes

Largely Increased Yield Re-
sults From Individual Hill
Selection

For many years farmers have given attention to the planting, manuring and cultivation of their potato crop, but generally neglected the methods of seed selection or breeding. Regarding live stock it is universally recognized that it pays to put forth every effort toward improving the strain by careful selection and breeding. The field of plant breeding and selection offers to every farmer an interesting and profitable diversion, and it should become the farmer's hobby.

Experiments have shown that potatoes grown from hill-selected seed will give an increase of from 30 to 50 per cent over the average yield. The hill selection method consists in making individual hill selections in the field at digging time, selecting, of course, for uniformity in size and a maximum number of merchantable tubers. Each hill may be given a number and kept and planted separately the next year to permit comparison when the progeny is harvested. Another good plan is to go through the field in autumn just before the tops die down and mark by a twig or stake, the hills showing most vigor and resistance to disease. When harvest comes the marked hills may be saved for seed, discarding the hills which do not come up to standard. Enough may be selected in this way each year to plant a plot sufficiently large to supply the seed for the whole crop the following year.

No farmer is too poor to have his own breeding patch of grain or potatoes. Indeed, if they but knew, farmers can ill afford to be without the breeding plot to supply seed for their own planting.—F. C. N.

To encourage the use of electricity, the Municipal Electricity Department of Shanghai, China, advertises "Motors for hire."

Care with fire in the woods is the greatest precaution required of campers and sportsmen. Before leaving fires, campers should assure themselves that no live sparks are left to scatter with a favorable wind.

See to it that your own home is rendered free from fire danger. Examine the condition of your kitchen stoves, furnaces, fireplaces, etc., and see that the flues are properly protected. See that chimneys do not run through portions of the building in such a manner as to cause the ignition of the wood-work. Go into the cellar, clothes closets, cupboards, etc., and see that no rubbish is allowed to accumulate which may cause fire.

RAT ELIMINATION IN GERMANY

Owing to the very efficient method adopted for their destruction, few rats exist in Germany. As soon as they appear in a dwelling or other place if ordinary methods fail, the police are notified of their existence, and at once an official is detailed to exterminate the rodents. So closely is the matter followed until the effort is successful that rats are seldom seen. No charge is made for the services of the official rat catcher.—United States Commerce Report.