

sulphate to destroy mustard were:

1. The necessity of spraying early, just when the plants are coming into bloom. If the spraying is left too late, the older plants will not be destroyed by the solution, and will form seed, and hence the experiment will not be entirely satisfactory.
2. To spray thoroughly, with a good pressure. In order to spray thoroughly with an ordinary broadcast attachment, it is necessary to keep the horses walking very slowly. If an attempt is made to cover the ground quickly some of the plants will be missed and the results will not be entirely satisfactory.
3. In regard to the cost of spraying with iron sulphate it was found that the cost of material per acre varied from \$1 to \$2.40 per cwt., so that it now costs from \$2.50 to \$3.50 per acre for material to spray mustard.

These cooperative experiments in weed eradication will be continued this year (1917) and it is hoped that a large number of men will take part in them in order that sufficient information may be gathered to warrant definite statements being made in regard to the best methods for controlling these pernicious weeds.—Address all communications to Prof. J. E. Howitt, O.A.C., Guelph, Ont.

A New Variety of Barley

MANCHURIAN Ottawa 50 barley is a selection made several years ago by the Dominion Cerealist from the old, commercial sort, Messury, which has been favorably known in Canada for a long time and has been successfully grown in very many districts. As the tests in regard to yield are still in progress, final conclusions cannot yet be drawn, but it may be stated that the new selection appears to be, for many sections of this country, the most productive barley known among those sorts which have fairly satisfactory straw. The straw of this barley is of good length and strength, as compared with other popular six-row sorts; but it should be emphasized that even the best barleys have a tendency to lodge when sown on rich soil, in seasons when moisture is plentiful. The heads of this variety are exceptionally long and heavy, and herein, perhaps, lies the secret of its large yield. In very high winds it does not behave quite so well as some of the other sorts as it shows a tendency for the heads to break off at the base, and for the kernels to thresh out on the ground. However these objections, though worth considering in wind-swept prairie districts, are of no importance in most localities.

While it is early in ripening—like nearly all barleys of its class—it does not mature exceptionally early, being perhaps a trifle later than the average. The awns of this barley adhere somewhat firmly, so that, for best results, it should be in thoroughly dry condition when threshed. Considering all its characteristics, Manchurian Ottawa 50 is recommended by the Dominion Cerealist as the best variety of six-row barley for nearly all parts of Canada, except those districts where destructive winds are to be feared about harvest time.—Experimental Farms Note.

The only reason why most weeds can live from year to year is that they are given a chance to ripen seed. If the weed can be swatted any time from the time it germinates till it is in blossom, that is the end of it, except in the case of quack grass, sow thistle and Canada thistle. Wild oats increase by ripening before the grain in which they grow, some of the seed falling and seeding the land for the next year. Mustard works a good deal the same way. When some crop, as corn or alfalfa or a grass crop, is grown in rotation with the grain crop, wild oats are doomed.

On which side of the book is YOUR Cream Separator?

ASK yourself this question, "Which will pay me better (1) to buy an ordinary separator that costs, say, \$55.00, and loses a whole pound of cream to every 1,000 pounds of milk skimmed, or (2) to invest in the

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Gets all but $\frac{1}{10}$ pound of cream in 1000 pounds of milk skimmed

Ordinary separators lose a whole pound in 1000 pounds of milk skimmed

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—the separator that gets all but one-tenth of a pound of cream per 1,000 pounds of milk skimmed, and costs, say, \$75.00?"

The answer is that with a Standard you save in one year, with twenty cows, no less than \$27.25. Here are the figures:

	Standard \$75.00 7%	Ordinary \$55.00 7%	Pan Skimming
First cost	\$75.00	\$55.00	
Interest	5.25	3.75	
Add Depreciation	3.75 (5%)	5.50 (10%)	
Add Loss in cream	3.00	30.00	\$70.00
Saving over ordinary separators	\$12.00	\$39.25	\$27.25
Saving over old pan skimming method			\$8.00

The Standard's close skimming is substantiated by tests made at Government Dairy Schools. The Standard soon pays for itself, not only by saving above for depreciation in the Standard and 10% for ordinary separators. The Standard gives more years of service due to its self-oiling system, which decreases wear and tear (all bearings run in oil), spindle, anodized bowl, etc., etc.

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