

**A Few Sheep Enough for a Beginning.**

No doubt the extra efforts now being put forth by the Dominion Government and the Sheep-breeders' Association to promote sheep-breeding in Canada, will have the desired effect of starting many new flocks in this country. The problem of breed matters little to the beginner, as long as he gets one for which he has an especial liking, as we have many hardy breeds, grades of which would form a very suitable foundation for the beginner's flock. It is generally advisable to begin with a few good grades, rather than experiment with the higher-priced pure-breds. Good pure-breds make the initial cost greater and increase the risk, while poor pedigreed stock is always undesirable, and never finds ready sale at prices more than those which obtain for mutton. So, begin with a good grade flock, into which no inferior or scrub individuals are allowed to enter. Choose ewes from one to three years of age. Never buy old ewes for flock foundation purposes. The sheep is a short-lived animal, and even when purchased young, they grow old soon enough.

The number purchased depends largely upon the size of the farm and the knowledge of the business. If one has had no experience, just a few head, say ten or twelve ewes to a hundred-acre farm, are plenty for the beginning. It is a good plan to use, year after year, pure-bred rams of the same breed as that of which the ewes are grades. Avoid violent crossing. The best way to become familiar with any work is to do it. So it is with sheep-raising. Practical experience with the flock will, as years go by, increase the owner's knowledge of what is required to successfully operate sheep-breeding, and, as his knowledge increases, the size of the flock may be increased, without danger of the business outgrowing the ability of its management. As time progresses, and the owner feels that conditions warrant the change, a few pure-breds may be bought to replace the grades, and gradually the entire flock be superseded by the better-bred animals. There is often a tendency, when beginning a new enterprise, to start on too big a scale. Many a commercial business has gone under because it was too far in advance of the ability of the operator. Sheep-raising is not nearly so dangerous in this respect as some other agricultural ventures, but it is wise to move slowly. It is to be hoped that every stock and grain farm in Canada will soon be able to boast of a few sheep. Think what it would mean to the country. Try the sheep. Begin now. They are profitable and easy to manage, will aid in increasing the size of your bank account, and also in the destruction of the worst weeds.

**Points in Steer Breeding.**

Dean Funk, in an American farm journal, says breeding for beef will not be done on the high-priced lands of Illinois; instead, they finish the thin steer. Mr. Funk gives expression to a popular belief. It has been shown that a colt on full feed will the first year make half his mature weight, the third year half the weight of the second year. This being true, the thin steer is a mistake. A grade Shorthorn two weeks old weighed 107 pounds. He had for a nurse an old cow, with a few left which we had used two years as a nurse without freshening. This we supplemented with milk from separator. He was eating hay and silage, mixed with corn chop, oats and bran. He just doubled his first weight, and made 214 pounds. We get them on skim milk at about two to three months. We feed milk till they go to the block. A steer one year old weighed 1,035 pounds. With best feeding, we could not have beaten fifteen hundred the second year. Just like the colt, half the gain of the first year. T. B. SCOTT.  
Middlesex Co., Ont.

**THE FARM.**

**Weeds Which Contaminate Clover Seed.**

In the production of alfalfa seed, the weeds to be especially watched are ragweed, ribgrass, bladder campion, trefoil and sweet clover. Usually, it is only the perennial weeds which contaminate the seed, if the killed out and thin places of field are taken care of with a scythe.

In red clover, most of the wild mustard disappears with the first cutting. The rest must be hand-pulled. Docks should be cut or pulled if they appear after the crop is removed for hay, and any other perennials must be dealt with in a similar way. Ribgrass and campion seeds are also those of ragweed and sweet clover, are altogether too common in alfalfa seed, and clover is becoming quite prevalent and may be most easily removed from the first crop by pulling or spudding after a rain.

**To Control Grasshoppers.**

What will drive away or kill grasshoppers? The farm adjoining ours has not been worked this year, and a large meadow field adjoining ours has not been worked for years, and this year is nothing but a grasshopper hatchery. I happen to have a big root crop adjoining, and they are cleaning out the young mangels and turnips, and am afraid they are going to destroy all my root crops. M. S. W.

The order of insects known as orthoptera contains many well-known families, including cockroaches, crickets, grasshoppers, etc., all of which have biting mouth-parts, and many of which, when present in large numbers, do great damage to growing crops. Two families, acrididae, the short-horned grasshoppers, and locustidae, the long-horned grasshoppers, are particularly well known, the former being the family to which the term locust is rightly given. Every Biblical student is familiar with the plagues of the locusts in ancient times, and ravages have been made at intervals in various sections of the world up to the present time. While we are not often in danger of losing the crop of very large areas in this country, cases like the one in question are not by any means infrequent, especially in districts where light land and old meadows abound, and some means of control is absolutely necessary in such cases. The red-legged locust is one of the most common and most destructive of the acrididae, and the meadow grasshopper (having antennae or horns longer than the body) are the most common of the locustidae.

A dry season, such as that which we experienced last year, is very favorable toward the multiplication of the various species, and a second dry season usually brings much loss from these insects. Eggs are deposited by the females in the ground in masses containing about thirty,

not care to be bothered with too many weights, a convenient means of measuring the ingredients is one given by Mr. Criddle, the originator of the mixture: Five ordinary pails equal approximately 100 parts of horse droppings, and each part equals in bulk one pound of Paris green. As horse droppings do not always weigh the same, the bulk method of measuring is more satisfactory than weighing. Place the mixture in a barrel or half barrel, and scatter it along the edge of the crop. The locusts will come to it in large numbers and will be killed by the poison in the mixture. Scattered loosely in the crop at the edge of the fields, there is little danger of animals or poultry being poisoned. This is a cheap and effective remedy—most effective when the mixture is spread a little at a time every other day, rather than scattering a large quantity at once.

**Bleached Oats and Barley.**

The United States Department of Agriculture has received numerous inquiries relative to the application of the Food and Drugs Act to oats, barley and other grains bleached with the fumes of sulphur. It appears that by this process grains which are damaged or of inferior quality may be made to resemble those of higher grade or quality, and their weight increased by addition of water. Such products, therefore, are adulterated within the meaning of the Food and Drugs Act of June 30th, 1906, and cannot be either manufactured or sold in the District of Columbia, or in the Territories, or transported or sold in interstate commerce.

It is represented, however, that grains which are weather-stained, or soil-stained, the quality of which is in no wise injured in other respects, are sometimes bleached with sulphur fumes. Pending

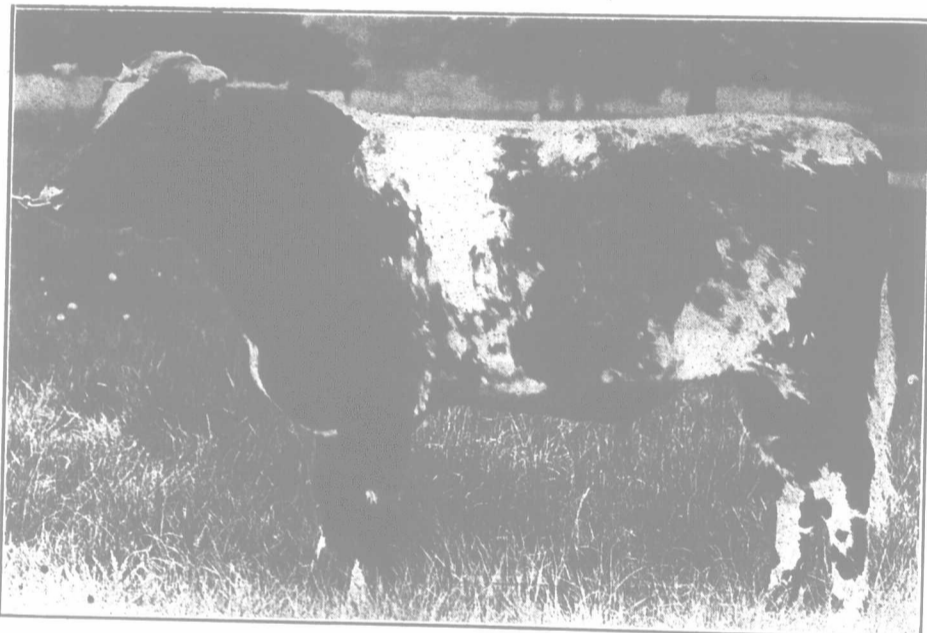
the report of the Referee Board of Consulting Scientific Experts as to the effect upon health of sulphur dioxide, and the results of experiments being made by the Department as to the effect of sulphur-bleached grains on animals, no objection will be made to traffic in sound and wholesome grains which have been bleached with sulphur dioxide and from which the excess water has been removed, provided that each and every package is plainly labelled to show that the contents have been treated with sulphur dioxide. Bulk shipments should be properly designated on invoices. The terms "purified," "purified with sulphur," "processed," etc., are misleading, and not proper designations for these products.

Attention is also called to the fact that grains bleached with sulphur fumes may have their germinating properties very seriously impaired.

**Hopper Dozers for Grasshoppers.**

Dr. C. Gordon Hewitt, Dominion Entomologist, writing on the control of grasshoppers and locusts, covers very thoroughly the ground already covered by an article in this issue. His outline for the preparation and use of hopper dozers is as follows:

The use of hopper dozers is frequently resorted to, and has been found effective in some regions in the destruction of grasshoppers in the various stages of their growth. A hopper dozer consists of a long, shallow iron pan mounted on runners, and in most cases having a screen or sail of canvas at the back to prevent the grasshoppers leaping back over the pan. In the pan water is placed, and over the top of it a layer of kerosene or crude oil is poured, as also on the screen at the back. A useful hopper dozer may be made as follows: A sheet-iron pan is constructed, 16 feet long, 18 to 20 inches wide from front to back, and four inches deep, the interior being divided up by partitions into six or eight sections, and this pan is sometimes mounted on 2 x 6-in. runners, four feet long, projecting both from the front and back, and fastened in front of the pan over a bar with about a dozen 1 x 4-in. bolts. This will strike the insects and make them leap into the pan, which must not be do overturned. At the back and



**Proud Warrior.**  
Yearling Shorthorn bull. First in class at Royal Counties Show, 1912. Property of His Majesty The King.

and in most cases the winter is passed in the ground in the egg stage, the eggs being covered by a mucous fluid that preserves them. The young grasshoppers emerge in the spring, are wingless, and their only means of locomotion is by hopping. After a number of moults, wings make their appearance, and gradually the young commence to fly, many species being capable of quite extended flights.

Remedies, while quite numerous, are not very wide in their range. Turkeys have been found by many to be a very profitable destroyer of the pests, ridding the pastures of them, and converting their bodies into profitable and wholesome meat. Four methods of destruction recommended by Dr. Fletcher are: (1) The plowing down of the eggs in the autumn or early in the spring before the young hatch. As the eggs are usually laid in land under crop, this destroys many of them; (2) the young may be destroyed by plowing down, by poisoning, or by burning in windrows of straw placed as traps for them, to which they resort in great numbers at night; (3) the use of hopper dozers—implements of a light frame covered with canvas or sheet iron, and in the bottom of which some water with coal oil is placed. The insects fly against the canvas, and drop into oily water, and are destroyed. (4) Poisoning. This is the most satisfactory method. Poisoned bran makes a good bait, but cattle mixture has been used in some cases of all other forms of destruction being unsuccessful. The mixture consists of 100 parts of bran, 100 parts of horse droppings, 100 parts of Paris green, 100 parts of kerosene, and 200 parts of water, dissolved in a pail of water, and mixed with the bait. As the average farmer does