

**Quantity of Clover Seed to an Acre**

*T. G. Baynor, Seed Division, Ottawa*

There is a great difference of opinion with many farmers as to the amount of clover seed it is necessary to sow on an acre. For instance, one farmer will tell you he has had splendid stands by sowing only four pounds an acre, while others will say that 12 pounds an acre is quite too much. Then there are a host of men



**One Way of Handling the Corn Crop**

who will argue that six or eight pounds an acre is a great plenty. As a matter of fact all these amounts may be plenty under certain conditions. Take the four pound advocate. He probably grows a lot of early red clover. He rarely if ever saves any of the second crop for feed, but pastures it off. He doesn't turn his stock to feed on it until the seed is forming. Before it is all pastured off there has been quite a large number of heads in which seed has formed. These seeds drop into the ground again, or are eaten by cattle, and go through in the droppings which find their way to the soil while the stock are pasturing, or in the applied stable manure. In a few years after growing clover the land seems to get quite full of the seed, and no matter when a field is re-seeded a small amount of good seed will give a good stand. It may be that the soil is rich in humus, and every good seed not only grows but the plant branches out so that the ground is covered and a good crop results with light seeding.

12 LBS. FOR 100 MTNS

The farmer, however, who stands up for 12 pounds an acre in seeding isn't far from the mark, even when he sows good vital seed. How is this, you ask? The seeds of clover are quite small and if sown evenly they should cover the ground. But did you ever figure out how many clover seeds would be sown to the square inch of ground if you applied even 12 pounds an acre? Perhaps you didn't know that there are 18,400 red clover seeds in one ounce by weight, and you had no way of finding out. There are about 18,400 red clover seeds of average size in one ounce, and this would give you 294,400 seeds in one pound, and in 12 pounds of seed sown per acre there would be 3,732,800 seeds. There are 43,560 square feet in an acre, so that for every square foot there would be 85.6 seed, or about 3.5 of a seed a square inch. So you see that unless the plants stood out a good deal they wouldn't cover the ground any too well, and this is calculating that every seed is vital, and that it gives an account of itself in the soil.

To have every seed grow there must be a fine seed bed made rich in humus and lime if possible, which would ensure plenty of moisture and plant food, so that the little clover plants could get off to a good start. Good growing weather would be necessary as well. From what has been said, it would be extravagant to say that on a poor soil or a soil in a poor state of cultivation it would require much more seed

to get a stand. Then, supposing the seed is of inferior quality, as most of the Ontario ground seed is this year, owing to the intermittent growth last season and the early frosts, surely plenty of seed and close screening will be in stand next spring to avoid disappointment in the stand next summer.

There is a further argument here for those who have to buy seed to pay the price for the best seed they can get, as it is really the cheapest seed after all.

**WHY NO. 1 SEED**

See what is required of No. 1 seed. It must be clean, sound, evenly graded, of good color, and contain not more than five noxious weed seeds an ounce, or 100 weed seeds of any kind an ounce. For such seed the retailer may ask from \$15 to \$16 a bushel, or 25c to 27c a pound. Compare this with No. 3 seed, which according to the wholesale price asked, will mean that the retailer will ask at least five per cent. increase on the cost, \$12 to \$13 a bushel, or from 20c to 22c a lb. In No. 3, which only has to be reasonably clean, there may be plenty of dead seed, which need not be labelled with the percentage vitality, unless it fall below 63 per cent., or two-thirds the proper standard for germination. It would appear that there will be plenty of No. 3 seed this year, both from appearance and vitality. Then supposing the maximum of weed seeds are there, 80 an ounce of noxious weeds, or 16 times as many as in No. 1, and a total of 400 of weed seeds of all kinds an ounce, which is four times what is allowed for No. 1. The spread in noxious weeds is as 1:16, and for all weeds as 1:4, but the spread in price is only about four or five cents a pound.

I leave the reader to judge which is the



**This Way is Better**

The two illustrations on this page show graphically two distinct methods of handling the corn crop in this country. The one depicted in the illustration above is accompanied by great loss in feeding value as well as Jeany, Oxford Co., Ont., here illustrated, shows the more economical and more up-to-date method of handling corn and a method that is ever growing in popularity—in a silo.

—Photos by an editor of Farm and Dairy.

cheaper buying and on which kind the most money is made, by the wholesaler especially. The law requires that all seeds should not only be graded but so labelled. Look out when buying that the seed is truly marked.

Keep your eyes open for opportunities to give the horses work. The time is near when they will be all the better for a little hardening now.—A. McCall, York Co., Ont.

**Start Now to Get Eggs in Winter**

*Dr. A. A. Farewell, Ontario Co., Ont.*

Now is the time to prepare for getting eggs next winter. A good winter laying hen must possess certain characteristics. She must be well developed and well fed. She must be active, with a quiet disposition, and above all have a good constitution. In order to have her well developed, she must be hatched early. She must be active, with a good constitution. We must feed her in such a manner that she will be compelled to work for her food. She will acquire a quiet disposition through the frequent handling and gentleness of the attendant.

There are three conditions essential in order to produce such a hen: Proper stock, proper housing, and proper feeding. Any two of these might exist, but without the third there would be failure. I place proper stock first, as it is the most important. It requires many years of careful, patient, and persevering breeding to produce good and profitable stock. Only eggs from the most prolific and robust hens should be used and of those that begin laying at an early age.

**THE CHICK ONLY A START**

But when we have our chick hatched, our work is only begun. Now comes the most important stage in the whole hen business—the rearing of the chick. The feed must be such as will produce a rapid development of both bone and muscle and also have a special affinity for the egg producing organs. Unless this feeding is properly and carefully attended to, the breeder will find himself minus that fully developed and matured pullet on which he must depend for his supply of early winter eggs.

Proper housing presents itself in two periods—before and after the pullet begins to lay. The first period begins when the chick is weaned. They should then be placed in a shed facing the south, with nothing but coarse burlap for the southern wall. This shed should be surrounded with grass and preferably in an orchard. Holes should also be made in the wall so that the chicks can pass in and out. For my own part, I have this opening fitted with a trap door in such a manner that the hen opens it in the morning. It then remains open until closed by the attendant at night. This ensures the chicks a maximum amount of fresh air and free range, which are the two things requisite for the development of a strong, healthy chick.

**LABOR SAVING FEED METHODS**

The feed is placed in the hoppers and the water in an automatically regulated tank, and are replenished once a week. The chicks remain in these quarters until the first of October, when they are moved to their winter quarters, placing only 25 in a pen. Then the feeding for egg production begins.

These houses are also provided with open fronts, but the roosting apartment is somewhat warmer. Care should be taken at all times that the hens are plentifully supplied with fresh air; fresh air is the secret of success in the hen business. These winter quarters must be provided with runaways. I have a runaway on both the south and north sides, and they are plowed every alternate year, so that the hens are on fresh ground each year.

**WAR ON VERMIN**

The hens and houses must be kept perfectly clean. I use pyrethrum powder for hens and coal oil for the houses, applying the oil with a sprayer or brush. These houses are not frost-proof. In fact, the drinking water would freeze solid were it not removed every night. The idea that hens must be kept warm in order to produce eggs is a rule of past ages.

I now come to feeding, which many people  
(Concluded on page 2.)