

seeds most likely to be found in the various kinds of clover and grass seeds, and especially with those seeds covered by the Seed Control Act of 1905. This can be done by attending the short courses in seed judging held annually at the Ontario Agricultural College or the courses of similar nature held in various parts of the Province, or by consulting the representatives of the Department of Agriculture. In order to aid farmers and seedsmen to make themselves familiar with the commoner weed seeds, the Botanical Department of the O. A. C. will furnish at cost price (25 cents) cases containing the seeds covered by the Seed Control Act of 1905 and ten other weeds frequently found in clover and grass seed.

#### GERMINATION TESTS

A good sample of seeds should not only be free from weed seeds but should also have a high germinative capacity. This cannot be told with accuracy unless a germination test is made. The best type of germinants for their characteristic color and developed usually indicate high germinative capacity. Good seed should therefore be free from green or orange mold. College indicate that less than 40 per cent. of seeds will not germinate. All who desire to do so can have tests of their clover seed made at the Botanical Department, which will make a charge, or they can quite easily make the test for themselves at home. All that is required being two dinner plates and a piece of cotton flannel or some other similar cloth about twice the size of the plate. The sample to be tested should be thoroughly mixed and 100 or 200 seeds counted out just as they come, making no selection. These seeds should be placed on one layer of the cloth after it has been thoroughly moistened and laid in one of the dinner plates and the other layer of moistened cloth should be laid over them and covered with a be made. The dinner plate. The test should be made at a temperature of about 70 degrees F. The cloths kept sufficiently moist. On the first of each succeeding day the sprouted seeds should be picked out and counted. In from four to ten days all the good seeds will be germinated, indicating the percentage of seeds that would grow when the seed was provided all conditions were suitable.

## INERT MATTER.

The amount of little stones, grit, dirt, broken straw, or other inert matter in clover and grass seed is a point which is often overlooked by the purchaser. Seed containing considerable quantities of such material is too frequently bought and thus a high price per pound is paid for dirt. Some samples of red clover seed tested by the U. S. Department of Agriculture, Washington, contained over twenty-five per cent. of such inert matter. Those buying seed should see that they get seed and not dirt.

### Cement for Stable Walls

In your issue of March 4th was an enquiry about the quantity of cement required for a stable. I would like to make a similar enquiry for a stable of this size: Cow stable, 40 x 80 ft., horse stable, 40 x 80 ft., with roof; hollow walls, 4 inches thick, having a 2 in. air space, the walls to be 11 ft. high, one floor included. Also barn, 100 x 40 ft., two stories of 10 ft. high each, with no roof for barn. Would you let me know the quantity of cement required and oblige?—S. C. R., Fraserville, Que.

In order to erect the wall of cow stable and horse stable the same being built with two 4 in. walls with air chamber between, it will require 87 yds. of concrete and 85 barrels of cement. In order to build a roof to horse stable from cement it will require 40 yds. of concrete and 45 barrels of cement. This roof will also require iron for reinforcing concrete according to width of span. The floor-

ing for a building 40 by 80 will require equal amount of gravel and cement as that used for building of the same size.

In order to erect a barn 40 by 100 from concrete, we would state that the bottom storey should have walls 12 in. thick and the second story walls 10 in. thick without air chambers. If air chamber is added an equal amount must be added to the thickness of the wall. This will require 185 yds. of gravel and 185 barrels of cement.

As your party inquiring does not give the kinds of aggregates that are to be used we cannot give a correct quantity of cement, as different kinds

## Brings Results

Ed. Farm and Dairy:—I have received a large number of applications and requests for Ayrshire cattle since I commenced to advertise in Farm and Dairy. In conference with several of your stock advertisers, I find it is a popular medium between the buyer and the seller of registered stock, and the wide circulation brings purchasers from all over the Dominion of Canada and some from the United States. W. F. Stephen, Sec.-Treas., Can. Ayrshire Breeders Association.

of materials require different quantities. Broken stones and gravel require much less than sand. If you would also give a little more information about those buildings, more correct figures could be given. As these buildings are a considerable size we could not give him any definite quantities off-handed, but these already given will be near enough for forming estimates. London Concrete Machinery Co., L<sup>td</sup>. H. Pocock, Manager.

### Some Alfalfa Don'ts

A most comprehensive bulletin on alfalfa has recently been issued by the United States Department of Agriculture. The bulletin is prepared by J. M. Westgate, who is in charge of alfalfa and clover investigations in connection with the bureau of plant industry at Washington. Some alfalfa

Don't fail to provide for ample inoculation; soil from an old alfalfa field is best.

Don't sow poor or weedy seed.

Don't sow on a weedy soil.

Don't sow on any but a sweet, well-limed soil.

Don't sow on poorly drained soil.

Don't sow on any but a finely pre-

Don't pasture the first or second year.

Don't lose the leaves; they constitute the best part of the hay.

Don't seed a large acreage to begin with. Experiment on a small area first.

Don't give up. Many prominent alfalfa growers finally succeeded only after many failures.

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