

Editor "The Farmer's Advocate.":

For land that is in good condition and has been fall plowed, would advise sowing about twelve pounds of red clover per acre. We do not make a practice of sowing timothy with clover, but if the field was low and not very well drained some timothy could be used to advantage. We always sow with the grass-seed attachment on the grain drill, setting the spouts to scatter the seed in front of the discs or hoes as the case may be. Of course, for sowing on fall wheat we use a small hand seeder. Clover seed is too valuable to be guessed at by hand.

Barley has given the best results for me. As a nurse crop it is cut sooner than oats, and seems to give the young clover more air space or head room. The young plants will be from four to eight inches taller at time of harvesting barley than they would be if grown with oats. At least this has been our experience.

The barley is sown at one and a half bushels to the acre, and two bushels of oats, or probably a little less if sown broadcast, makes a fair seeding. We always prefer early seeding. We have a seed time and a harvest, and if are not "up and doing" when the ground is ready for seeding, all our work will bring but small returns.

Any soil that is in good tilth will grow clover if worked properly. We have had little experience with light sandy soils, but would think clover would be a success if the season were not too dry. We do not make any special preparation of the soil other than that which would be made for a grain crop. We always put all the work we intend to do on the ground before sowing, because a considerable portion of the seed is tramped down to a depth of from three to six inches and often more if the land is soft, and worked after the seed is sown. This seed is consequently lost, whereas if the ground is left alone after the drill passes over it everything will be left at a uniform depth. We use a disk drill with chain drags behind. We have never sown inoculated red clover seed.

You cannot get a good catch of clover on poor soil any more than you could get a good crop of grain. Something cannot be had from nothing, and this will be demonstrated very forcibly if you try to get a catch of clover on worn-out land.

There is quite a marked difference in a catch sown with an early maturing crop as against that sown with a late maturing nurse crop, especially if the nurse crop is heavy. The clover in the late crop will be more tender and spindly, and will not stand up under a hot sun like that in the early crop.

We have pastured clover in the fall after spring seeding, but it is risky and would not recommend it at all. The longer the stubble left when harvesting the better. It will hold more snow, and give more protection during the winter. It pays to give the young plants every chance. We always buy seed from reliable parties, and if you cannot do that by all means test it.

We have never made tests of the results from sowing different colored seeds. As long as the seed is uniform and plump, and I knew where it was grown and how it was sowed, I would be satisfied.

Lambton Co., Ont.

JOHN HUNTER.

Editor "The Farmer's Advocate.":

There are three reasons why so many failures of seeding red clover occur. First, poor seed; second, soil poorly prepared, and thirdly, covering the seed too deeply. The latter being the most frequent mistake. Never sow seed in front of grain drill. I seed down with wheat with hand seeder, sowing from nine to twelve pounds of clean, plump seed per acre—seed that has been carefully tested for germination, getting best results seeding last of March or first week in April. If there happens to be a light fall of snow about that time all the better. Sow on the snow and you can see that all the ground is being seeded. Never leave off seeding wheat ground until land dries up and spring frosts have ceased. A little freezing and thawing are ideal conditions. I seed with barley and oats too, and have never missed a catch. Barley sown one bushel to the acre makes possibly a better nurse crop than oats. You can't expect a good catch with either barley or oats on spring plowing, unless ground is well prepared and rolled firm enough so that when you follow with hand seeder the seed will remain on top or as close to the surface as possible. We always have April showers to cover seed sufficiently and give it a start.

I have noticed so many farmers giving the ground a stroke with the harrows after they have finished seeding "to make sure" as they think that it is necessary to have seed covered, and as a result a failure or partial failure occurs. After you have succeeded in getting a catch, give the young plants a chance to grow. Never pasture the first fall. The plants will

have a better chance of standing frosts in winter and spring by following these simple methods in Kent County, at least a failure of a catch of clover is unknown.

Kent Co., Ont.

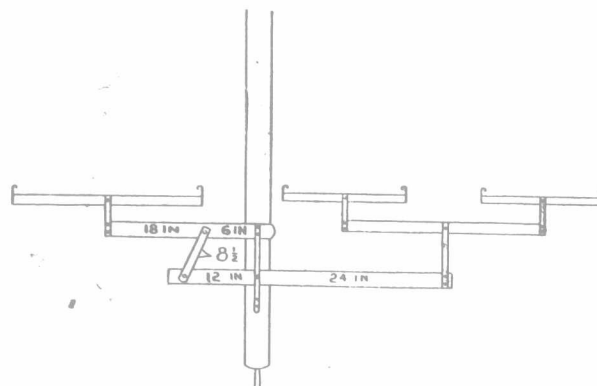
J. A. FLETCHER.

[Note.—Prof. Zavitz, of the Ontario Agricultural College, claims that clover sown with a nurse crop in the spring should always be sown in front of the grain drill.—Editor.]

Editor "The Farmer's Advocate.":

The clover crop is without exception the most important crop we grow on our farms. It is valuable not only because of the large quantity of excellent food it furnishes for the feeding of all kinds of stock, both as pasture in the summer and as dry feed in the winter months, but also for the large quantities of plant food it stores up in the soil both in the form of free nitrogen it collects from the air, and also in the humus it produces. The tap roots strike deep into the subsoil and bring up soluble mineral matter sufficient to develop the plant, and thus made available to feed other plants. Again the clover roots perforating the subsoil and decaying make it more porous than can be done with any implement.

Of the various methods of seeding used, we prefer sowing the clover with barley, following with a corn or root crop. Following this method we have never failed to get a good thick stand. The field has been given an application of stable manure before plowing for corn or roots, and together with the cultivation given the corn or root crop it is in the best possible condition for a catch of clover. We sometimes sow oats instead of barley, and secure a good catch of clover. But the barley is preferable as it ripens earlier, thus giving the clover plant more time to develop after the crop has been taken off. We also have had good success in sowing our grass seed on land that has had a light dressing of stable manure, during the winter months sown to either barley or oats. Again we have had very strong catches on fall wheat that was top-dressed and worked in before the wheat was sown, but as most of our wheat is sown on sod, plowed down after haying, this is not seeded again.



Three-horse Evener for a Tongued Implement.

Republished by request. This contrivance has been criticized as not quite equalizing the draft, but it is near enough for practical purposes.

When sowing red clover alone we sow about ten pounds to the acre, and when sowing clover and timothy mixed we sow about seven pounds of clover and five of timothy to the acre. We sow the clover and grass seed with the seeder attached to the grain drill when possible. The seed is sown in front of the tubes, and given a stroke with the harrow. If sown behind the tubes and harrowed, quite a quantity of the seed will be buried too deep to even reach the surface. Sowing by hand is too slow when labor is so scarce, and does not insure as even seeding.

We do not make any difference in the quantity of seed sown as a nurse crop for our clover. We do not believe in heavy sowing of any grain crop. Our practice is to sow six to seven pecks of barley, and about eight pecks of oats to the acre. When sowing clover on our wheat we like to sow on a little frost, as the action of the frost on the ground helps to work the seed into the soil, and it is ready to germinate as soon as the soil warms up.

Red clover does well on almost all well-drained soils, but has a tendency to heave on dark loam and flat clay soils, the yield becoming less if the soil is light or sandy.

We do not give the ground any special cultivation other than that mentioned above, with the exception that sometimes after harvest we disk or plow the stubble very lightly and work it down into a fine seedbed for the germination of weed seeds and ridding the land of quack grass, which can be cleaned out quite thoroughly if the season is sufficiently dry. Last year being so wet nothing could be accomplished with fall tillage.

Our seed has never been inoculated, but have found it difficult to get a catch of clover on land

that has been successively cropped for three or four years without being seeded, or having an application of manure.

While we pasture our clover in the fall, it is done more from the need of the feed than for the benefit to the clover. If the clover has a tendency to blossom it is better to pasture, for if the plant forms seed its nature is to die. Pasturing has a tendency to break down the stubble, thus leaving the plant more exposed to the driving winter winds with nothing to hold the snow and form a covering. A year ago we ran the mower over a field of the new catch to prevent ragweed from seeding, which made the field very bare, and, last season, on the exposed parts of the field there was very little or no clover. We have never tested our seed, but try to learn where and when the seed was grown. Light-colored seed should be shunned unless it has first been tested, as light-colored seed is an indication of age.

Too much care cannot be taken in the selection of our seeds, as to weed-seed content. If my memory serves me right the Seed Control Act allows in No. 1 seed per ounce five noxious and one hundred other weed seeds. In No. 2, twenty noxious and two hundred other weed seeds per ounce. Few of us have ever taken the pains to figure out the number of weed seeds we are sowing on our farms by using either of the grades No. 1 or No. 2. In sowing seed that will barely grade No. 1 we are sowing in every bushel 4,800 noxious weed seeds, and 96,000 other weed seeds; while if we are sowing seed that will grade No. 2, we are sowing 19,200 noxious weed seeds, and 192,000 other weed seeds to the bushel. There is no wonder it is difficult to secure clean seed, when many are sowing seed that will only grade No. 3, and in so doing are sowing, on their farms from every bushel of seed, no fewer than 76,800 noxious and 384,000 other weed seeds.

Brant Co., Ont.

A. W. VANSICKLE.

Silo Questions.

1. I intend to build a concrete silo 12 ft. in diameter by 30 ft. high, (about 8 ft. in ground.) I may put 10 or 15 ft. of stone on top in a year or two. Would you advise putting a continuous door in same?
2. If so, how would door be constructed, (material), and how would reinforcing be fastened?
3. If not, what size of doors would you advise?
4. Would twelve inches thick at foot and 8 inches thick on top be strong enough, also how many loads or cords of stone would it be safe to put in this wall?
5. Would you advise concrete bottom in silo or not, if so should it be drained and with what size of drain?

V. C. P.

Ans.—1 and 2. Our preference is not for the continuous door although some like it. Rods span the door space and are hooked to the longer rods or wire used to reinforce the silo. In building a shoulder one and a half or two inches deep is left in the inner corners, and against these shoulders the ends of the short pieces of 1½ or 2-inch plank are placed, one piece above another as the silo is filled.

3. Our five silo-door spaces were made as follows: On every third ring we placed a mold made of 1½-inch boards, its dimensions being 27 inches high by 20 inches wide, on the interior edges and one inch higher and one inch wider along the exterior edges, so as to give the door space a flare outwards, facilitating the removal of the mold after the ring had been raised above it, and also contributing to appearance and convenience of use. To provide an offset into which the frame doors might be subsequently fitted, four 2x2-inch strips were lightly tooled nailed around the outside of the interior edges of the mold, the two horizontal pieces at top and bottom being cut in the circle of the silo perimeter. The toe-nails holding these 2x2-inch strips were drawn each time before the mold was taken out. To bevel the exterior corners of the door openings, strips such as are used for laying corrugated roofing, were nailed around the outer edges of the mold. These do not require to be taken off for removal of the door mold is driven outward when being removed.

4. This thickness is greater than necessary. Ten inches at the bottom, tapering to six at the top, is plenty, if proper reinforcing is employed and the wall is built of good clean gravel and cement mixed 8:1, properly put up and moistened a few times if the weather is dry and hot. It is hard to say just how many loads of stone might be employed. One course around the ring may be imbedded, but that is all, and as the wall becomes thinner near the top only small stones must be used, if any are used at all. Each stone should be completely surrounded with cement and as soon as one course is covered