

Indeed, the roots at this place should be picked back by hand, and the earth accumulated there thrown out, to ensure against heating.

Production of Good Seed.

(Ottawa correspondence.)

Mr. G. H. Clark, Dominion Seed Commissioner, gave evidence before the Agricultural Committee a few days ago regarding the work of his department. He also alluded to the work being done by the Canadian Seed-growers' Association. In opening, Mr. Clark referred to the importance of farmers using only seed of the best quality, and having it as free from weed seeds as possible. It was well known, he said, that if wheat or oats were sown on impoverished land year after year the quality would rapidly deteriorate, and the power of production become diminished. It was, therefore, not only important that farmers should secure the varieties of grass or other crops best adapted to their farms, but that they should use seed that had received the best care and cultivation. There might be quite as much difference between two strains of seeds of the same variety as between two sorts, so far as the capacity of the seed to produce a large yield was concerned. Continuing, Mr. Clark said that the Canadian Seed-growers' Association had endeavored by practical work to show the farmers of Canada the advantages to be gained by using good seed. In order that a sufficient supply might be obtained, the association had co-operated with farmers in different parts of the country who were favorably situated for growing good seed and interested enough to take up the work, with the result that a comparatively large amount of improved seed is now being produced. Mr. Clark explained the method followed to produce this improved seed. A farmer who has decided to take up the work, selects a plot of good land and sows it with the best seed he can obtain. Before harvesting the ripened crop of the seed plot, he picks from 80 to 50 pounds of the largest and ripest heads to be used for sowing the seed plot the following year. A larger plot can be sown with improved seed every year, until the farmer is producing a large quantity of good seed. It was pointed out that seed can be brought up to a high standard by careful selection in the same manner as a herd of cattle is graded up.

Mr. Clark then went into the conditions of the seed trade in Canada, particularly in regard to clover and timothy, and gave the causes which led up to the passing of the seed bill, which were in brief as follows: In Europe a strong demand exists for first-class seeds, owing to the fact that the farmers there have been educated as to the advantages of using good seed. Canadian seed possesses an excellent reputation on the British market, and brings high prices. Canadian seedsmen found it to their advantage to install special machinery for cleaning seeds. Some had exported the best seed to England, selling the screenings to the Canadian farmers. When this state of affairs became known there was vigorous agitation for the enactment of legislation to prohibit the sale of inferior seeds. The seed bill passed at the present session of the Commons was the result.

Red Clover "Midge."

By Wm. Rennie, Sr.

While the red clover midge is such an insignificant insect that it is scarcely observable with the naked eye, it virtually has had control of the red clover seed crop in many parts of Ontario for a number of years. The eggs of this insect are deposited in the clover heads before any bloom appears, are hatched, and live on the substance of the petals. This pest can be overcome by cutting the clover as soon as the heads are formed, which is usually from the beginning to the fifteenth of June, according to the season. Whether in the northern or southern portions of Ontario, clover cut at this early stage makes a good quality of hay.

The chief advantage, however, is that the second crop will bloom before the second brood of midge is ready to do any damage. Occasionally, good seed is secured from a late crop of red clover, blooming between the second and third broods of the midge. In order to hasten the second growth of clover, tilt the front of cutter bar up so as not to cut too close to the ground. This insures a rapid growth of the clover, which helps to choke out any weeds that may be in the soil.

Alsike is secured from the first crop, so that it is more liable to contain weed seeds if such be in the soil. All impurities should be taken out of this crop while it is growing, either by hand weeding or by topping with a sickle or scythe without cutting the heads off the clover. The finest seed is from the early bloom of the alsike clover, as it is fertilized by the honey-bees, while the red clover is fertilized by the bumblebees, which are not developed in time for the second crop. The red clover midge does not work in the alsike clover.

Encouraged to go Ahead.

I am pleased to acknowledge your premium watch which you sent me. It is far ahead of anything I expected. I will try and get all the new subscribers to your paper I can, and wish you every success.

GEORGE LATHANGUE.

Barren Co. Ont.

Get Out Your Camera.

In view of the popularity attending those in previous years, we have decided to have another camera competition, or rather six competitions, as follows:

A—Photographs of farm homes, showing house, grounds, trees, etc.

B—Photographs of orchards or gardens.

C—Photographs of buildings and live stock, or any farming operations in which people or animals are at work.

D—Photographs of interior views of rooms in houses, showing arrangement of furniture, kitchen appliances, etc.

E—Photographs of cheese factories or creameries, with surroundings.

F—Rural school and grounds, with group of pupils. In this section we particularly desire photos of schools where grounds and surroundings are well kept.

The prizes will be, in each section:

First prize \$8.00
Second prize \$2.00

RULES FOR COMPETITORS.

All photographs must be mounted, and preference will be given to those not smaller than 4x5 inches in size.

They must be clear and distinct. In making the awards consideration will be given to the judgment displayed in the choice of subjects and to the suitability of the photographs for illustration purposes.

They must reach the office of the "Farmer's Advocate and Home Magazine," London, Ont., not later than July 15th, 1905.

The name of the competitor, with P. O. address, and the section or sections in which photographs compete, must be marked on the back of each photo, as well as the name and location of the view depicted.

Any competitor may send in more than one photo, and may enter in all six sections, but may not receive prizes in more than two sections, nor more than one prize in any one section.

All photographs entered for competition shall become the property of the "Farmer's Advocate and Home Magazine."

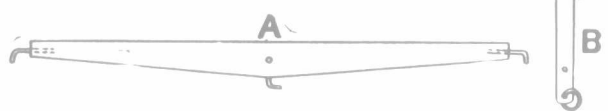
No photograph from which any engraving has been made is eligible for competition.

The beautiful month of June is the season par excellence for obtaining beautiful views of the various kinds for which our prizes are offered. Every Province in Canada and the adjoining States should be represented in this friendly competition.

Whiffletree for Six Horses.

To the Editor "Farmer's Advocate":

We have a nine-foot cultivator, a wide set of disks, and have used a four-horse team regularly this spring. We sometimes put six horses on the cultivator, disks or roller, and fasten the harrows behind. Six horses are handled as easily as four. We put the fastest walkers on the outside, with ordinary lines on them, and tie from bit to bit along the center of the string.



Accompanying is a cut of the whiffletrees we use for six horses.

A is a long doubletree, with a nook bolt screwed in each end. B is iron, one foot long, recently described in your columns for three horses. One of these irons is hooked on bolt in each end of long doubletree, standing upright. This allows six horses to be used without having an extra long tongue. L. M. BROWN.
Elgin Co., Ont.

Experience with Green Curing of Clover.

I would like to hear through the "Farmer's Advocate" the experience of any who have tried the "green curing" method of making clover hay, particularly those who have tried it for some years. What are the essential conditions, and are the results uniformly good?

Ans.—The green-curing, or Glendinning method, as it is commonly known in Canada, after the first man in this country to advocate it, consists briefly of cutting full-blown clover in the morning, tedding, raking and cocking up the same day, and the next day, after opening out the coils to sun and air for an hour or so, hauling in and tramping directly into a large mow, enclosed on three or all sides. The tight packing excludes the air and prevents any marked fermentation, the hay being thus kept sweet and fragrant, and curing perfectly in its own sap, provided no extraneous moisture, such as dew or rain water, be present. This latter is a most important point.

While a number report excellent results from this method, others, notably Prof. Day, of the O. A. C., have not found it satisfactory. It would seem that one or more of the essential conditions are not perfectly understood, but believing that a collation of experience is the best means of arriving at the facts, we invite a general discussion between now and haying time, from those who have given the system a fair trial.

Damage by Lightning.

The following comments by Prof. J. B. Reynolds, Professor of Physics, O. A. C., Guelph, are based upon data collected through reports of correspondents and newspaper accounts forwarded during the summer of 1904. Though the data do not include all the eventualities of the season, they seem to furnish sufficiently complete information from which to draw certain inferences of practical importance:

"The number of barns reported as struck in Ontario last year is sixty-two, of which thirty-three have reported losses. The total loss of barn property reported is \$82,450, making an average loss of \$2,500. These figures, of course, refer to barns completely burned, in most cases with part or the whole of the season's crop. Of the sixty-two barns reported as struck, fifty-four were completely burned. Applying the above average loss to these fifty-four, there is the enormous total of \$135,000 loss in Ontario from the destruction of barn property alone by lightning, and these figures do not represent the total loss, since our reports are necessarily incomplete.

"Of the total number of reports received, most were obtained from newspapers, and full particulars as to circumstances were not obtainable. We obtained, however, nineteen complete reports of barns struck. Of these nineteen, sixteen were isolated, with no trees or buildings near. Of the sixteen, fourteen were burned. Only one of the nineteen is reported as being situated near high trees, and this one was near some poplars, and was slightly damaged. Of the whole sixty-two reports, no mention is made of the buildings being rodged. Of the nineteen complete reports, none of the buildings was rodged. In one instance a windmill over the barn was struck first, and the current side-flashed into the building from this source, and the building was burned.

"In my previous reports under this head I have called attention to the evident effect of trees in protecting farm buildings. While there is no absolute proof, either from this year's reports or from previous years, there is in all of them strong presumptive evidence as to the efficiency of this means of protection. The planting of trees, such as spruce, elm, or maple, near enough to buildings to protect them, but not so near as to endanger them, is strongly recommended. The trees should be planted at such distance that when full grown their branches will not touch the buildings.

"The electric storms seem to have been unusually destructive of human life. Sixteen persons are reported as being struck by lightning, of whom thirteen were killed outright. Five of these who were killed were standing under trees and two were in houses. The danger of accident to persons standing under trees during an electric storm ought to be sufficiently evident to prevent the recurrence of this exposure. It is certainly very unsafe to seek refuge of this sort during thunderstorms.

"Forty-nine animals are reported killed, with a total estimated loss of \$2,010. Of the forty-nine, twenty-five were under trees, and nine were standing in the open field. One is reported as near a wire fence; three in a bush; with the remainder the circumstances are not specified."

The Culture of Sugar Beets.

In view of the interest being taken in sugar-beet culture, excerpts from a recent bulletin of the Wisconsin Experiment Station, written by Prof. Woll, will be found interesting:

INFLUENCE OF FERTILITY OF THE SOIL.

Good yields of beets can only be obtained on land that is in a good state of fertility. Soils that are naturally poor or are worn out by continuous cropping are not adapted to sugar beets; a judicious system of working up such land should be commenced by application of farm manure or commercial fertilizers, and by cultivation of crops in regular rotation. Farmyard manure is preferably applied to the crop preceding beets, or if applied directly to the beets, always in the fall before the land is plowed, so that the manure may be thoroughly decomposed in the early summer. It will then readily yield up its store of fertilizing ingredients to the beet roots when these are ready to make use thereof. Green-manuring, by means of leguminous crops, is advocated by some writers, for the purpose of increasing the humus and nitrogen content of the soil, but where sufficient live stock is kept to consume most of the rough feed produced on the farm, it is, in general, under ordinary farm conditions in this state a better plan to feed the crops to farm stock and take good care of the manure produced by the stock.

METHOD OF GROWING SUGAR BEETS.

In order to reach the best results for factory purposes, the beets should be planted on thoroughly-prepared land that has been plowed deep, and, preferably, subsoiled. Fall plowing, as stated, is always to be preferred. The seed is planted in rows 18 inches apart, using 18 to 20 pounds of seed to the acre, and burying this about one-half of an inch deep. The land is frequently cultivated and hoed during the early part of the summer so as to retain the moisture of the soil and keep the weeds down. Weeds in the beet field reduce both the tonnage and per cent. of sugar in the beets. The beet plant has been brought to its present wonderful development through the most painstaking methods of selection and culture, and unless it receives favorable growing conditions, entire possession of the field and an abundant food supply in the soil, its sugar