

That body visited all sections of the United States three years ago, and then reported that reforms must start in the home life. The women in the Congress have taken this as the keynote, and have asked members of the Commission and others to lead the discussions on a four days' programme. These discussions will be watched with interest, to determine if any practical results can be traced to them. Unquestionably, the farm women have their problems, but how much can a Congress do to settle them?

Both Saskatchewan and Alberta will send Provincial displays to the exposition, and McLeod, Taber and Lethbridge will send Board of Trade exhibits. Ministers of Agriculture, J. E. Caron, of Quebec; W. R. Motherwell, of Saskatchewan, and Duncan Marshall, of Alberta, are expected to attend the Congress.

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### Red Clover.

"Red Clover" is the title of a bulletin issued by the United States Department of Agriculture, and written by J. M. Westgate and F. H. Hillman, of the Bureau of Plant Industry.

Red clover is said to be the cornerstone of agriculture in the North Central and Eastern States, and what is true of them is also true of a large section of Canada. It has at least four uses on the farm, viz., as a hay crop, a pasture crop, a soiling crop, or a crop for green manuring. The most serious problem confronting the farmer in many clover sections is the increasing difficulty of successfully maintaining stands of clover on the farm. Continuous cropping causes a depletion of the soil humus and plant food, which increases the difficulty of growing clover. This is a condition which must be solved, because the loss of clover from the rotation leads rapidly to a run-down farm. The mere introduction of red clover into the farm rotation is not in itself sufficient procedure to maintain indefinitely the productivity of the farm. The clover plant adds nitrogen, which stimulates the soil to increased yields temporarily, but other fertilizer must be added, or the field will eventually be depleted in fertility.

To get a good stand of the crop, it is necessary to sow only the best of seed. Good, plump, bright, medium to large-sized, uniform seed, free from adulterants or any kind of noxious weed seeds, is the only kind to rely upon to produce a crop. Home-grown seed has several advantages. It is suited to the climatic conditions, does not contain impurities foreign to the neighborhood, and can be selected from fields known to be clean. Great care should be taken in purchasing seed of unknown origin that noxious weeds are not introduced, and too much care cannot be exercised in cleaning and preparing the seed for sowing. It is generally advisable, before sowing, to make a germination test, which can be done by placing a counted number of seeds between the layers of damp blotting paper, and the amount of true clover germinating is easily determined.

Red clover will grow on any deep soil that has in it sufficient nitrogen to start the young plants, and also enough humus to insure a stand. It does not succeed on wet, poorly-drained or boggy land. In order to make its best growth, it must be supplied with nitrogen-gathering bacteria on its roots. On soil on which clover has been previously grown, inoculation is not necessary, but where the land has not previously produced a clover crop, inoculation is considered advisable. This can be accomplished by using a pure culture of these organisms, or by transferring soil containing them from a field on which red clover has been successfully grown, to the newly-seeded field, at the rate of from 200 to 300 pounds per acre.

The seeding is usually done with a nurse crop of some cereal, and all sown in the spring. This method has two advantages. The grain crop is produced, avoiding the loss of the use of the land for a season, and the stubble serves as a protection during the winter.

In the Northern States some farmers practice seeding the clover alone, any time from early spring until August 15th, and find it much more certain of producing a crop.

A top-dressing of barnyard manure acts very favorably on red clover at any time. Gypsum, applied when the plants are about six inches high, is often beneficial when the clover lacks vigor.

It is not advisable to pasture spring seedlings the same season, as the young plants are injured by such practice. Common red clover usually lives but two years. The second season the first crop is usually cut for hay, and the second crop for seed. In sections where the season is not long enough to permit of this, the first crop may be pastured, and the mower run over it early, so as to allow plenty of time to insure a crop of early ripening seed.

Red clover has a variety of uses where stock is kept. When cut at the right stage, which is at or just past full bloom, and carefully cured and harvested so as to retain most of the leaves,

which contain a larger percentage of protein than the stems, it makes the best of hay. It makes an excellent pasture for all classes of stock, and is very valuable as a roughage feed of high protein content. It is not advisable to use it for silage where it can be pastured or made into good hay, but, in cases of inclement weather at haying it may be ensiled, mixed with other grasses or corn. It is a suitable crop when grown in mixtures with other clovers and grasses, and works in well with short rotations, where it aids in keeping up soil fertility, and the roots, besides their fertilizing value, keep the soil in good condition.

In handling clover for seed, the first crop must be cut early. Only a medium growth of the plant is required to produce the largest quantity of the best seed. Clipping the clover after early summer pasturing is a good practice where seed is the main crop grown. This insures a seed crop which will mature better and more evenly, and to some extent avoids the ravages of injurious insects.

Under normal conditions clover should be cut for seed when most of the heads have turned dark brown and a large percentage of the seed has reached the dough stage. If left too late, the heads become brittle and break up; if cut sooner, light, shrivelled seed will likely result. Some farmers use a mower, with a buncher attached; others use a self-rake reaper, which proves very satisfactory for this purpose, while many mow it down and rake it up like hay. It is necessary that the crop be well dried before it is hauled, or it will not thresh well. The only thoroughly satisfactory machine to thresh clover is the clover-huller. It is sometimes threshed with a grain thrasher having a clover attachment, but this is less satisfactory. Dry or cold weather is necessary for best results, as a humid atmosphere toughens the clover, and the seed is hard to hull.

The straw is of comparatively little use for feed after being threshed, but cattle and sheep will pick it over, and it may be scattered back on the fields or used as an absorbent for liquid manures.

### Creosoting Posts and Silo Staves.

Editor "The Farmer's Advocate":

Since my first article on preserving farm timbers appeared, in "The Farmer's Advocate" of January 5th, 1911, I have received inquiries, the answers to which may be interesting and useful to other readers:

1. We are splitting 200 fence posts, mostly chestnut, with anchor posts of white oak. What preservative treatment would you use, and how would you apply it?

2. What preservative treatment could be used on the inside of a plank silo?

Ans.—1. Chestnut and white oak are naturally very durable woods, and the idea of preservative treatment is to allow the use of cheap woods, such as poplar, beech or maple, and to render them as serviceable as the more expensive chestnut and oak. But, as one year's extra life is sufficient to pay for the cost of treatment, it will pay to treat these posts.

As there are only 200 posts, you may not care to purchase the apparatus described in a former issue of this journal. In this case it would be better to use the "brush treatment," which, while not so good as "tank treatment," is far better than none.

First, have the posts thoroughly seasoned, with the bark off. Oil applied to green parts will not penetrate, and the posts check in drying, thus opening up cracks through the antiseptic zone, and enabling the germs of decay to gain access to the interior of the post. No matter whether posts are treated or not, they should never be set until well seasoned for at least three months. Checks in seasoned posts are closed by rain, and if the posts are wet when treated, the checks are missed; they reopen when the posts dry, and expose untreated surfaces.

For 200 posts, buy about 25 gallons of creosote, or "dead oil of tar," as it may be known. This should cost about 10 cents a gallon, and should be procurable through hardware stores.

Treat the posts on a warm day. Have them piled on slids clear of the ground. Heat the creosote in a kettle to a temperature of about 220 degrees F., and paint it on the posts with a wide brush, covering the whole butt to a distance of six inches or one foot above the ground line. Be sure to get the creosote in every crack and hole. So that it form a complete film around the post. On this depends the success of the treatment.

For convenience in painting, pour the creosote from the heating kettle into pails. Do not allow it to get below 200 degrees F. The creosote should always be thoroughly liquid. As soon as the first coat is applied, apply a second coat. The second coat should be a penetration of creosote into the wood, and should be one-sixteenth to one-quarter of an inch thick. The second coat should be applied in the same manner as the first, and one turn of the brush should be sufficient to give a good coat. The cost of treatment per foot would probably be in the neighborhood of two to three cents.

each, allowing for labor. This cost would easily be made up by the increased life of the posts.

2. The treatment recommended above for posts would be best for the staves of a wooden silo. As silo timber is rather expensive, and is very much exposed to decay, owing to the dampness and heat of the silage, it would certainly pay to treat it.

Buy one gallon of creosote for every thirty square feet of surface to be treated. This is sufficient for two coats. Apply in the same manner as directed for posts. Wherever it is desired to give the creosote a color, mix with each gallon eight to ten ounces of color ground in oil, together with an equal bulk (8 to 10 ounces) of linseed oil.

H. R. MacMILLAN.

Dominion Forest Service.

### Something More About Stooking.

One good feature of "The Farmer's Advocate" is its way of allowing the discussion of all phases of a question. This feature is exemplified in the matter now under discussion. In your issue of August 24th, a correspondent, under the title, "Too Much Haste in Stooking," draws attention to one purpose of stooking grain, namely, the drying of the sheaves, in order that they may be preserved in the mow in a wholesome condition. If this were the only reason for stooking grain, the present writer would enter no word of protest. But is drying of the sheaves the only object in stooking? Surely not. The main reason for stooking the sheaves is the full maturing of the grain. For various reasons, grain is cut while still somewhat immature, the farmer knowing that there is sufficient nourishment in the straw to bring the grain to maturity. Since the maturing of the grain is so important a consideration, is it not important that the sap should be absorbed by the maturing grain, rather than evaporated rapidly by unnecessary exposure to the sun and wind? Leaving the grain unstooked, and thus unprotected from the harvest sun and wind, is the very best method of unduly hastening this hurtful evaporation. Further, it is important that the grain in the sheaf should mature uniformly, and this it cannot do when one-half of the sheaf is exposed to the sun, and the other exposed to the moisture of the ground. Further, there is one stage in the work of stooking that is very important, though too often neglected, namely, capping the stook. Capping prevents too ready evaporation going on in the whole or part of the sheaf-head, and thus permits the grain to mature, rather than to dry out and remain deprived of its last stage of development. Capping the stooks causes the grain to test well. Should the season prove a catchy one, the cap-sheaves will be beneficial in shedding a deal of rain, and any farmer knows the value of such a benefit. Your correspondent has put your readers under a debt of gratitude by calling attention to the importance of stooking. This article simply emphasizes another aspect of this important part of harvesting.

J. K.

## POULTRY.

### Blackhead in Turkeys.

Many inquiries have come to this office from time to time about this disease, and a few points from A. G. Gilbert's address on this subject before the select standing committee on agriculture and colonization may be of value to some of our readers.

"Blackhead is a disease that has destroyed turkeys in every part of the world. Blackhead is caused by germs that have been permitted to gain ascendancy over the vitality of the fowls. So long as the turkeys are strong and vigorous, they were able to contend against this bacterium without being injured by it, but, as the result of careless inbreeding, neglect of stock, filthy surroundings, attempting to grow hogs, sheep, chickens, cows and turkeys on the same piece of ground, the constitution of the turkeys has been weakened to such an extent that they cannot resist the onslaught of the disease. There is no cure for blackhead, except to weed out the birds that are attacked by it, bring in new stock, clean up the premises, and create sanitary conditions that will foster the growth of the turkeys."

The symptoms of the disease are as follows:

1. Lack of appetite, weakness, emaciation.
2. Constant diarrhea, usually from the first. This diarrhea is caused by inflammation of the caeca.

3. Half stupor, with an inclination to keep away from the rest of the flock.
4. In most instances, discoloration of the head as the disease advances, hence the name "blackhead," but this is not strictly correct, as the discoloration is not always present.

An alarming feature of the disease is that it is not until it has got firm hold of the bird that signs of sickness may be observed. It is then too late to save the turkey. The disease makes great headway in the midsummer months; actively