FARMING

In this department each week will be given general information to farmers and stockmen. No attempt will be made to criticize the work already being done by Canadian farmers; but an effort will be made to present to the farmers of the country summarized information contained in government reports, and the actual experiences of men and women who have achieved success in farming by following modern methods. Farmers who have found new "wrinkles" or have made a success in any special line of agriculture are invited to send short letters to this paper giving their experiences, or criticizing any of the information contained in these columns.

Vegetable Growing

BRUSSELS SPROUTS.

Brussels sprouts belong to the same family as cabbages and are somewhat similar to cabbage in flavor. They differ from the cabbage in that sprouts grow from the stalk, which sometimes reaches a height of 18 inches to two feet. The sprouts, or small cabbages, come out at intervals on the stem on all sides. This crop is handled in practically the same way as the cabbage crop and can be grown on the same kind of soil.

Sowing Seed.

The seeds of Brussels sprouts should be sown in April in spent hotbeds or cold frames. Rows should be two and a half inches apart and the seed should be treated in a similar manner to cabbage and cauliflower. They should be planted out of doors as early in the season as possible, two or three feet apart.

Cultivation.

Sprouts should be cultivated with horse scuffler as long as foliage will permit. Like cabbage and cauliflower they respond to frequent and thorough cultivation. On small gardens the soil may be stirred frequently with the hand hoe.

Harvesting.

The sprouts when ready for use are from an inch to an inch and a half in diameter, and should then be broken off by hand, or cut off with a sharp knife. This can be done in the field, but usually in the late fall the whole plant is carried into a shed and the sprouts are then cut off more conveniently.

Marketing.

The demand for Brussels sprouts is not as large in the Ontario cities as it is in some cities in the States, and yet the crop is easily grown and the sprouts have a more delicate flavor when cooked than cabbage. Sprouts are usually sold in quart baskets or berry baskets.

Storing.

Brussels sprouts should be stored for winter use as directed for cabbage. Some growers make a pile 18 inches high and about two feet long and cover with soil. They will commence to decay if stored in larger piles. A cool cellar or shed is an excellent storage for this vegetable.

General Hints.

Brussels sprouts should be grown in every kitchen garden because of their eating qualities. The demand is increasing on the markets of Ontario, particularly in Toronto, during the last five years. The leaves do not need to be removed toward the end of the growing season.

CABBAGE.

Many acres are annually devoted to the production of cabbages, some for early market, and some for storing for winter use, and some for pickling factory purposes. It is an important crop and is considered to be one which will give good average returns year in and year out.

Cabbage is not so particular about the soil in which it is to be grown and it is a crop which is often grown on land which is not adapted to other crops. Any well drained soil holding plenty of plant food in an available condition should grow excellent crops of cabbage. Land with a loose gravelly sub-soil should be avoided.

Manuring.

As previously stated, there should be an abundance of plant food readily available in a good cabbage soil. This can best be secured by large applications of manure. It is recommended that land for growing a first-class crop of cabbage should receive not less than 20 tons of manure per acre annually. This should be applied in fall or winter as convenient for best results.

Growing Plants.

For an extra early crop of cabbage it is advisable to plant the seed in flats in hotbeds or greenhouses about March 1st. Seed should be sown in drills one-quarter inch deep and usually covered with sand. The plants should be transplanted before the rough leaf appears into flats and should stand one and a half to two inches apart, particularly the latter distances for very early plants. Two or three-inch paper or clay pots can be used for this purpose for a limited quantity.

The plants should be carefully watered and given plenty of fresh air to prevent damping off. They should be hardened off in cold frames, so that they will be able to stand any ordinary cold weather after planting out.

For late cabbage the seed is usually sown in a row in the field, or in specially prepared soil, which can be covered with screens to prevent the cabbage root maggot fly laying its eggs. Sow seed for late crop not later than June 1st and transplant not later than July 15th. Plants can be grown quite thickly in the rows.

Planting Out.

Early cabbage plants should be planted on land with a southern exposure, which is usually much warmer than any other. Planting should take place after danger of severe frosts is over. Some growers, desiring to secure an early crop, take long chances with frost and plant very early. Plants should be set 18 inches apart in rows 30 inches apart. Late varieties should be planted 2 x 3 feet on an average garden soil.

The plants to grow very early cabbage are usually dibbled in. Plenty of earth should be kept around the roots. Care should be taken with this commodate this. Usually this dibber is made from a broken fork or spade handle, sharpened and being 12 to 15 inches in length. The cabbage ground should be in good condition, so that when the dibber is used the soil can very easily be packed in around the roots. Care should be taken with this part of the planting, for often if the earth is left loose around the roots the plant receives a check which helps to lossen the returns from the crop.

For the late crop on large acreages the horse transplanter is used with good success. This machine drops a quantity of water in the hole where the plant is set. Some growers make a practice of watering the hole in which the plant is to be set in all methods of planting. Another plan adopted is to make a batter of soil and water and in this immerse the roots of the young plant. Cow manure, a little soil and water also make an excellent preparation in which to immerse the roots.

These methods are all useful, the last one in particular, because the plant has a supply of plant food right at hand and the moisture allows the closer packing of the soil around the roots.

Cultivation.

Cabbage responds readily to cultivation. A fine mulch on the top of the soil which helps materially to conserve moisture is necessary. This can be kept in proper condition by thorough cultivation with a horse scuffler once a week and particularly after each rain. Hand hoeing is unnecessary in fairly clean soil of any acreage. Cultivate until the size of the heads prohibits.

Harvesting.

Early cabbage are cut off the root with a sharp knife just as son as they are large enough for marketing. Late cabbage are handled in the same manner for early fall sale. For winter sale or storage they are usually pulled up by the root toward the end of the season and stored. Splitting of the heads may be prevented by lifting the head and setting it upside down on top of the soil or by loosening the root.

Storing.

Cabbage can be kept well on into the winter months under proper conditions. Cellars, trenches or pits or regular cabbage storage houses are used. It is absolutely necessary that a good supply of fresh air be available in a cabbage storage. A moist, humid atmosphere will soon ruin the heads in storage.

A common method is to dig a trench three or four feet wide and ten inches deep in a well-drained part of the field and stand the cabbage in layers, head down, the second layer fitting in between the roots of the first layer. Bring the rows to a peak at the top by cutting down the number in the layers each time. Soil should be piled over these as the season advances and air vents placed at the peak. Cabbage may be kept in the cellar of the house if the temperature is kept low and a good circulation of air is kept up. For best results they should be piled on shelves three or four layers to a shelf, which should have a slat bottom.

Marketing.

Cabbage are shipped in bulk or in slat crates holding one dozen heads. Locally they are sold by the single head or by the dozen.

The principal object of manuring farm crops is to increase the yield, but other results follow. The quality of the crop is improved, its date of ripening in some cases strengthened, and its feeding value made greater.

In some parts of England at the present time the minimum intrinsic valueof well-cultivated agricultural land is about $100 an acre, and under good farming this land returns a profit of nearly $20 an acre. Many farmers however are selling at from $200 to $300 an acre.

Use grass where possible in pork production; it cheapens the cost.

Best Bull in America Valued At $75,000

Bonnie J., owned by E. E. Mack of Thomasville, Ga., was judged grand champion and given the title of being the best bull in America, at the International Stock Show at Chicago. His valuation is placed at $75,000. He weighs 2450 pounds.

TO GET GOOD PRICES FOR NEXT TWO YEARS

Farmers' Outlook Bright, Says Speaker at Agricultural Committee.

Farmers throughout Canada will continue to get good prices for their products during the next two years, according to the opinion of Dr. J. W. Robertson, C.M.G., who addressed the Parliamentary Committee on Agriculture and Colonization at Ottawa recently.

It would take at least two big crops to catch up to anything like normal supplies of breakstuffs, ten years to attain pre-war status on milk products, and four or five years for beef products.

The speaker deplored the feeling in some quarters that the United States was not carrying out its war obligations to the full. Together with Great Britain, the American Government was financing the sending of food to no fewer than ten countries, with approximately 14,000,000 destitute and starving inhabitants.

Announcement was made that the Federal Government is intending to send one or more representatives overseas to watch European markets. It was also decided to take steps to place a printed copy of Dr. Robertson's speech in the hands of every Canadian consumer.

POULTRY

THE EGG

BROKEN EGGS IN NEST.

It is necessary to watch broody hens carefully to see that the eggs do not become badly soiled by manure, mud or broken eggs. If an egg is broken in the nest the contents become smeared over the other eggs and close up the pores in the shells, suffocating the chicks inside. If the hen soils the eggs badly by getting her feet muddy, or if she is not allowed off frequently and they become soiled with manure, the result will be the same. This must be carefully watched. If any eggs become smeared with broken egg or they become too dirty, they must be immediately cleaned. Wash the soiled ones in just lukewarm water. Be sure it is not too hot. It should be just slightly warm to the hand. Try it with a thermometer if you have one. It should be about 100 to 103 degrees F. Clean out the nest, add fresh chaff and replace the eggs. If the trouble is noted in time and these directions followed perhaps no harm will be done.

Hatching Time.

Hens should not be molested at this time. They usually go on the nest just before the chicks begin to "pip" and do not come off again until they are all hatched. About the seventeenth to nineteenth days be sure to have sufficient feed handy so they can easily secure enough to last them over the hatching period.

When it is certain most of them are hatched it may do no harm to gently lift the hen and remove the broken shells, but do not do this too soon or too often.

If, during the hot weather, or on a very hot day, a hen which is setting or about to hatch chicks is observed standing on the nest there is no cause for alarm. As soon as the eggs are cool enough she will sit on them. Such details in her affairs she understands equally as well as we and generally speaking should be allowed to continue unmolested in the discharge of her duties.

Start the boy off with a calf, lamb or pig and let it be his in reality as well as name. The proceeds from this in time will purchase a pure bred, and thus the foundation is laid for a keen interest in livestock and the farm.

A good seed bed is essential for good crops. The work of preparing it must be thoroughly carried out.

IF I HAD SOME SILAGE.

A Silo on every farm.

The realization of this slogan would give marvelous incentive to dairying by increasing the production and profit from the cows of Canada.

A silo on every farm would lead to a demand for more than one silo on most farms.

Such an accomplishment would result in enough silos being built on every farm to provide every animal, from the hen to the cow, with as much succulent food as it needs every day in the year, winter and summer.

I do not know how much that would increase the average yearly production of the cows being milked in Canada, but I do know that the basic fundamental principle of feeding for large, economical production demands that cows shall have an abundance of palatable, succulent, nutritious, bulky food.

I know that cows must be properly fed every day in the year and not just periodically, and that no feed can be used more successfully and more cleaply than silage as the basis of all rations when luxuriant, green grass is not available.

I know that we have now entered the period of Canadian agriculture, not to depart therefrom, when the one who profits most from livestock and dairy farming will be the one who saves and utiliezs most efficiently that which has heretofore been wasted.

Some day there will be a silo on every farm and then wise men will sit on cool, well screened porches, when summer nights are hot, and in comfortable, steam heated rooms on cold winter evenings, and relate to their children and grandchildren amazing stories of how there was a time when men actually left 40 per cent. of their corn crops out in the fields to go to waste.

WHAT IS A TON OF ENSILAGE WORTH?

"One ton of silage esuals one ton of sugar beets.
"Three tons of silage equal one ton of clover hay.
"Three and one-half tons of silage equal one ton of alfalfa hay.
"Two and one-fourth tons of silage equal one ton of marsh hay.
"Three and one-half tons of silage equal one ton of prairie hay.
"One-half ton of silage equals one ton of pumpkins."

CHICKEN VERMIN IS BAD ONLY IN CROWDED RUNS.

The More Range and Space Fowls Have, the Better They Can Keep Clean and Take Care of Their Health Without Aid of Owners.

By Lord Ogilvy.

Cats are supposed to keep off rats that attack chickens. A good many renegade cats kill chickens themselves. The weather has certainly been hard, but fowls have laid well notwithstanding. It is hard to head them off at this season, if only they are fed sufficient egg-making material.

I will not pose as an expert on chicken vermin, but only those who have large numbers of fowls in crowded quarters need be badly troubled. Fowls at liberty with reasonably disinfected houses should not have much trouble from this cause. Starving the vermin out is one great remedy. Besides, one can clean up an empty house by much more drastic ways than one to which the fowls must return to roost.

Creosote applied in quantity with a spray will produce an impossible condition for almost any living creature in a tight-shut house in hot weather. It is permanent in its effects where the wood becomes soaked, and will also keep the house from rot. Wood heavily creosoted will eventually come to the surface through several coatings of good lead paint, at least as a stain sometimes with pleasing, and sometimes with poor, effect.

Creosote Lasts Better Than Kerosene.

Creosote is nearly as penetrating as kerosene and far more lasting; on the whole, one of the cheapest and most satisfactory things around the fowl house if the birds can have some other laying place for a while.

Sometimes, in warm weather, it is not a bad thing to let the chickens roost in the grass for a while. It certainly tends to clean them up and meanwhile one has a free hand to clean the houses with mixed batteries of sulphur candles and any other sort of germicide.

The worst fault I have found with moving the birds about is, that they lay in new and secluded places. So far as sheltering them in summer, a bit of roof and a roost is all that is necessary, and airy quarters are beneficial. It is a wise man who could say what kind of dirt chickens really prefer to dust in. Some days they like it dry and at others moist. Usually any dusting places I have prepared for them have met with disfavor and neglect. The other day I made a little roofed place in a warm corner, thinking it would be grateful in cold weather. We had the cold all right but not a chicken has been near it. What I deemed ideal lacks something or everything in the birds' estimation.

I will admit to being something of a joke as a hen man, because I keep but four to ten, though I have at times been pestered with hundreds, or as many as women folks could get hatched; each new chick cause of rejoicing; though all were equally useless in producing eggs except at the cheapest season.

Few Fowls Increase Production Ratio.

When I run 'em it is on the theory that four hens that do their duty is enough for each member of this family and some to spare, and that the fewer the fowl on a given run the a good run most any kind of fowl will lay except such as occur in all breeds that are almost non-layers, and these are much more easily detected in a small than in a big flock. Then the guillotine does its duty.

There is more danger of overfeeding a few chickens, but so far as I know, that is the only disadvantage. Considering the egg layers with fowls for the table, the proposition changes and more must be kept. The eating quality of the chicken mainly depends on the finishing feed, and it is at this time also that there is the biggest profit to those on a small place, even with only a coop, can very well buy chickens and put the last artistic touch to their edible qualities.

There is no laying chicken that will make a first-class broiler or roaster, and the older they get, the worse; so that for most people in confined quarters, attention is best devoted to layers only. The meat fowls can be bought and fattened.

Game Bird Cross With Better Flavor

If a bird such as the Cornish game be crossed on even fowls of poor eating quality for the late hatches one can get along with one set of hens and secure better results with eggs and flesh than with intermediate breeds.

CLUB ROOT DISEASE STAYS IN THE SOIL

Apply Lime Immediately After Diseased Crop Has Been Removed.

Club root of turnip and related plants causes a considerable loss in the eastern provinces. Diseased roots are greatly swollen, distorted and sometimes rotted. Once established, the disease remains in the soil indefinitely unless precautionary measures are taken.

If the following precautions and practices are adopted, the disease can be greatly reduced, if not completely controlled:

(1) Plant only on disease free soil—A comparatively new piece of land which has never been planted with turnips, cabbage, rape, etc., and which hence may be regarded to be absolutely free from the disease is preferable. Under no circumstances use a field which has previously produced a club-root infected crop unless it has been heavily limed and the lime has had three or four years in which to free the soil of the organism.

(2) Liming is a good practice—Considerable benefit may be secured by applying three tons of air slacked lime or five tons of ground limestone any time before planting the crop; but the best results are obtained when the lime is applied immediately after the diseased crop has been harvested and a period of three or four years allowed to elapse before turnips or cabbages are again planted. Liming will not only control club-root but turnips and caggages do better on soils rich in lime than where lime is lacking. Acid reacting fertilizers encourage the disease.

(3) Manure—Manure from stock fed on club-rooted turnips should not be used as it invariably carries the disease and infects the soil to which it is applied. Where possible, it is good practice to apply to the turnip crop only such manure as comes from stables where turnips have not been fed at all.

Rotation and Sanitation—Plant susceptible crops on the same soil not oftener than once in eight years. Destroy all diseased roots or boil them before feeding. Keep down all weed of the mustard family. Raise cabbage and cauliflower seedlings on disease free soil and never throw infected soil from seedling boxes where it may be spread to clean fields.

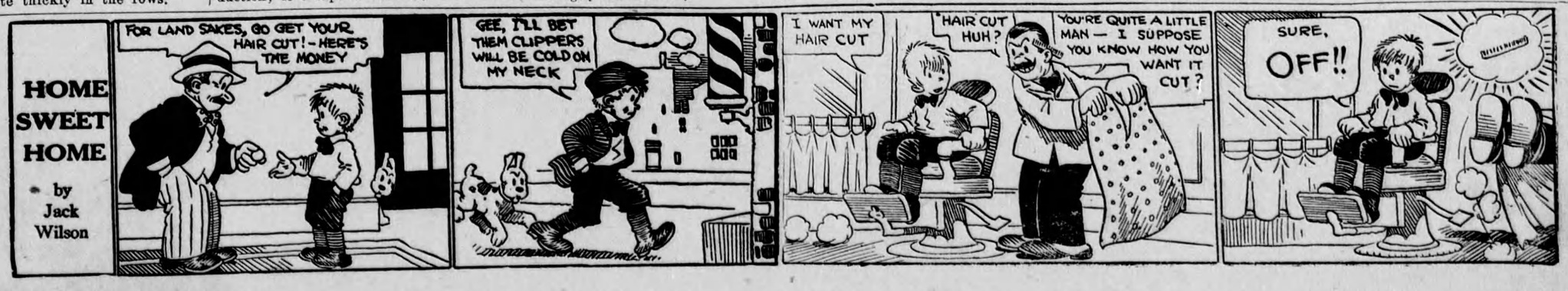
G. C. CUNNINGHAM,
Pathologist for Root and Vegetable Crops.

The Chick

Care of Chicks.

The grass around the coop should be cut short before the chicks are allowed out and if the weather is suitable they may be permitted to leave the coop from the first. Should the weather be continually rainy and cold a temporary protection should be made in front of the coop so they may run out a little without danger of being wet and chilled. They must not be permitted to run in long wet grass or be out in cold rains. If there is a heavy dew they should be confined until it largely disappears. It is often advisable to make a small yard by fastening a strip of poultry netting, one inch mesh or smaller, to the front corners of the coop and stretching it out as far as possible. For very young chicks use wire about eighteen inches wide, making sure it fits closely to the ground in all places. Chicks will get out through a very small hole but will not return through the same.

The hen should be confined to the coop at least while the chicks are very young and especially if there is any danger of her taking the chicks to undesirable places if running at large. When the chicks are three or four weeks of age the hen may be allowed to run, but she must be confined to the coop with the chicks at night.

Growing chicks should have free range, ordinarily. It is conducive to strong constitutional vigor and rapid economical growth. The practice of confining chicks to a very small yard absolutely void of vegetation, cannot be too strongly condemned. Chicks cannot thrive under such conditions without more care than we usually are able to give them.

It is well to have the coops on fresh ground each year. Ground may become "chicken sick," in which condition chickens cannot grow well upon it. Sometimes the soil becomes infested with disease germs and, if more chickens are put on this ground they are almost certain to contract the disease. The germs are picked up in the chicken's food. Ignorance of this fact has discouraged many an enthusiastic turkey raiser. A disease, blackhead, affects young turkeys very seriously, and the germs of this disease will live in the ground for several years. Raising young birds on this contaminated ground year after year is sure to result in a very high mortality. For poultry raising a heavy soil, such as clay, is not as satisfactory as a light open porous soil. Chickens cannot be raised as thickly on heavy soil and it is more likely to become "chicken sick." Ground on which chickens have been raised should be plowed or worked up thoroughly before more are placed upon it.