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

SALSIFY.

Salsify or vegetable oyster is a hardy plant used by many, and should be grown more in the kitchen garden. Its good qualities are unknown to many in the province.

Salsify is a deep-rooted vegetable, something similar to the parsnip, and requires a deep, rich, loamy soil for best results. It is grown from seed, and will be ready for use in one season.

The seed can be sown in rows 15 or 16 inches apart with an ordinary seed drill or by hand, or it may be broadcasted. This should be done early in the spring when other vegetable root crops are sown. The plants should be thinned to two or three inches apart. Cultivate with wheel and hand hoe sufficient to keep down weeds. In the fall the crop can be harvested in much the same manner as parsnips. The roots should be dug and placed in the cellar in moistened sand to prevent them from withering. If so desired, this crop may be left in the soil all winter, being dug as required or being used in the early spring.

Salsify is usually sold in bunches of clean, even roots, having about three inches of the leaf left on. Six to twelve roots make a bunch.

SPINACH.

Spinach is grown almost entirely for greens. It is a rapid growing spring crop and the leaves form a large percentage of the greens used in this province.

Spinach thrives best on a rich sandy loam, and also does well on muck soil. The soil should be heavily manured previous to planting seed.

Seed should be sown as early in the spring as possible, in rows 12 to 15 inches apart. It should be sown rather thin. Spinach seed is sometimes sown in the fall in late August, and before severe weather sets in the young plants are protected by a top-dressing of strawy manure. In some localities very early spinach may be secured in this way. Plants should be forced along with applications of nitrate of soda, 200 pounds to the acre or a handful to a square yard. This should be sprinkled between the rows and care taken not to allow any of the nitrate to touch the leaves, as a burn will result. Spinach should be cut with a sharp knife and sold in bulk. For shipping, ordinary barrels with plenty of airholes are used.

Squash is a crop which takes up considerable room in growing owing to the dense vine common with many varieties. As a financial success squash are of minor importance, owing to the limited demand and the usual low prices received for them. A rich, sandy loam, well filled with well-rotted manure, is the best soil for this crop. The seeds should be planted eight to ten to a hill at a depth of three inches and ten to sixteen feet apart each way; thin to three to four inches. If extra quality is required, a couple of shovels of manure (well-rotted) can be placed in the hill before the seeds are planted. Only the two or three strongest plants should be left, the others being pulled out when young.

Squash can be grown very satisfactorily with corn, planting a few seeds every four to five rows. They should be harvested before freezing and stored in cool, dry cellars. It is a good plan to pile the squash in layers on shelves, so that the air can reach all sides of them.

Squash and pumpkins require similar storage conditions. The stems must be left on and the squash must be carefully handled, as decay soon sets in when they have been bruised.

SWISS CHARD.

This vegetable is being grown more extensively each year in this province. It can be grown easily from seed planted in rows 15 inches apart, the young plants being thinned out to six to eight inches. The leaves are cut back to the root, which is left growing in the ground. The leaves are used for greens and the stem or rib of leaf as asparagus. A few plants should be sufficient for a small family. If the leaves are cut close to the crown new leaves will shoot up to take their place.

CANNING, DRYING AND STORING FRUITS AND VEGETABLES

It is now the season for canning fruits and vegetables and, though the price of sugar may be high, thus tending to discourage housekeepers from canning as much fruit as they otherwise would do, yet there are few who will care to be without a fair supply for the long period until the fresh product is available again.

Every year a large number of cans of fruit and vegetables spoil and, especially under present conditions, it is important to reduce the loss to a minimum. This is done by encuring thorough sterilization of the product itself. The germs of decay, moulds and bacteria are practically always present and unless destroyed, will attack and spoil the fruit and vegetables. Moulds usually form on the surface only, but when the product becomes soured the whole of the product is spoiled. This souring, or "Flat Sour" as it is called, is due to various causes.

In the bulletin on "The Preservation of Fruits and Vegetables," issued by the Horticultural Division in 1919, the author, Miss Margaret Macfarlane, gives the following causes for Flat Sour:

1. By the vegetables being allowed to stand in the cold water of the blanching period for a longer time than is necessary. Never blanch or cold dip more than you can pack at once.

2. By the jars being allowed to stand after being filled with boiling water, before being placed in the canner or sterilizer. If one or two of the jars are in the canner a few minutes longer than is necessary the fruit or vegetables will not be affected, while if the jar were left on the table for a corresponding length of time "flat sour" might be started.

3. By the jars being placed close together after being taken from the canner which prevents their cooling rapidly.

4. By the product being allowed to stand over night before canning. Peas, beans, corn and asparagus which are overripe or too mature when canned will readily "flat sour."

1. Can within five hours after picking.

2. Can only young, tender, fresh products.

3. Blanch, cold dip and pack one jar of the product at a time, and place each jar in the canner as it is packed. The first jar will not be affected by extra cooking.

4. Cool the jars as quickly as possible, but do not let a draught strike them.

Another important factor in successful canning is the preparation of the canning utensils. The following quotation from the bulletin already referred to deals with this:

"If jar has been used the previous year, special attention must be paid to washing. Wash carefully in clean, hot, soapy water. Rinse in hot water and test. Test every jar, top and rubber. See that the edges of the jar or top are not rough, by running your finger around the edge. All sharp edges should be filed or scraped off. Fill each jar half full of warm water, adjust the rubber, put on the cover and snap the wire clamp. Turn jar upside down to see if it leaks. In using a Perfect Seal jar, if the jar leaks, the clamp may be tightened by turning the spring of the clamp underneath the word "tight" on the neck of the bottle.

Never use a rubber ring which has been used before. Old rubbers lose their elasticity, are brittle and break when stretched. Test rubber by folding the ring and pressing tightly. Turn it over and reverse the fold in the same place. A good rubber ring will show no crease or break where the rubber has been folded.

After the jars have been tested they should be put on in warm water and boiled for 10 minutes. The tops and rubbers should also be sterilized for the same length of time.

Fruits and vegetables can be dried quite successfully and simply, and many take advantage of this. Where one is assured of hot, bright days, drying in the sun is the easiest method. The plan is to spread the product out thinly on something clean, and then to ensure its being protected from dust and insects it is covered with cheesecloth, which permits a circulation of air, the cheesecloth being supported on a frame and not directly on the fruit. The fruit or vegetable should be turned once or twice a day. The product should be taken inside at night and if rain threatens. Another method is to dry in the oven or on trays hung above the stove. When sufficiently dried the product should be somewhat pliable rather than brittle. The latter condition is often found when drying is done too rapidly. The dried product is letf in open boxes for a few days to make sure it is sufficiently dried and poured from one box to another each day to mix thoroughly and ensure all being dry. It is then put in tightly closed cans or even strong paper bags well closed. Beans, celery, corn, peas, onions and pumpkin are among the vegetables that may be easily dried. Apples and raspberries are two of the most satisfactory fruits.

In storing fresh vegetables for winter it is well to remember that onions must be kept very dry. They should be dried as much as possible outside, and when brought in spread out thinly in a well ventilated place. If stored with much moisture in them they are very liable to rot.

Celery needs moisture at the roots when stored, but the tops should be kept dry to lessen danger from disease.

One of the best methods of ripening green tomatoes is to store them before they are touched with frost in closed drawers in a room where the temperature is between 60° and 70° Fahr., or above.

Potatoes should be dry when stored as there is less likelihood of rot if there is disease in them. A dry, cool, well ventilated cellar where the temperature is between 33° and 35° F. is best for potatoes.

Squash should be stored in a comparatively warm, dry place if they are to keep well. The temperature should be about 50° Fahr., or more.—W. T. McCOUN, Dominion Horticulturist.

POINTS IN POTATO SPRAYING.

Spray before late blight appears. Once blight has appeared, spraying is of no value. Spraying once is almost as useless as not spraying at all.

Spray five times, commencing about the middle of July; repeat end of July, middle of August, end of August, and middle of September.

Spray before rainy periods, once the spray mixture has thoroughly dried on the leaves it won't wash off.

Spray from the tops down and from below up. Use good pressure, cover the whole plant. Half spraying won't pay, don't waste your time and money proving it; Experimental Farms have already proved it.

Spraying pays a dividend every year. It increases the yield. It prevents storage rot. Late blight reduced the crop on the average during a five years' period, by 130½ bushels per acre. Late blight caused a loss of 21.3% of the crop from digging time to the following April. You may—the country cannot—afford to do without spraying. Do your duty.

Home-made Bordeaux beats factory-made Bordeaux.

The standard Bordeaux mixture is made by using 4 lbs.—6 lbs. bluestone, 4 lbs. lime, to 40 Imperial gallons of water. (To control the potato beetle, add to each 40 gallons Bordeaux mixture, 8 oz. paris green and 1½ lbs. arsenate of lead paste). Ask for directions how to prepare Bordeaux mixture.

Hand-spraying an acre (four applications) costs from $3.00 to $4.00 per acre; spraying with one-cylinder horse pump costs $3.50 per acre; while spraying with a two-cylinder horse pump costs $6.60 per acre. The use of the last resulted in a net profit of $41.02 per acre. The most efficient hand-sprayer yielded $26.00 profit per acre. The best sprayer to use is the one that gives high pressure, is of rigid construction, and has no unnecessary complications.

CROP ROTATIONS

A crop rotation must have certain qualifications to be successful.

First. It must supply the crops needed in the proper amounts and proportions. Where live stock is kept suitable feed must be secured, for if it cannot be grown it must be purchased. Live stock require pasture, grain, roots, ensilage and hay. The grain farmer uses a smaller proportion of feed and derives his income from the sale of grain. It is more difficult to arrange a suitable rotation for the grain farmer than for the live stock breeder.

Second. It must maintain, or better still, increase soil fertility. This is done chiefly by the application of manure and the growing of leguminous crops. A rotation of crops is one of the most satisfactory methods of maintaining soil fertility.

Third. It must return an adequate net income to the owner. Whether the crop is sold direct from the field or marketed through live stock the transaction must be profitable. In some localities, under suitable conditions, two crops may be harvested the same year with profit.

Fourth. The crops in the rotation must be so arranged that weeds may be properly controlled. Where grain is grown continuously, weeds secure a foothold but where hay pasture and hoed crops are rotated with the grain, less trouble from weeds is experienced.

THE FARM NEWS IS THE REAL NEWS

"The big metropolitan newspapers find no end of sport in criticising and making fun of the letters written to the country newspapers from neighboring villages and wayside country places. They seem to think it is all foolishness. Yet the country editor can find as much to amuse him in the Sunday editions of the big sheets. It is amusing to learn that at a reception of the 400 Miss Jones wore a gown of white satin and iridescent sequins and Miss Brown was rigged out in a ravishing toilet of apricot chiffon taffeta with silver lace. When you read in the country newspaper that farmer Jones has built a new barn you learn that something substantial has been done to better conditions. The doings of farmer Brown are of more importance than the much advertised frivolties of the so-called "400," many of whom never did a day's work in their life or had a sensible idea in their heads."—From the Northwood, Ia., Anchor.

To remove oil from a carpet, put some flour on the carpet and brush it off very carefully into a dustpan. Keep on applying flour till all the grease has been absorbed.

The Summer's Work Among Poultry

As soon as possible after weaning, the chicks should be got out on range. Put them in colony houses situated where the grass is not too long, put a temporary fence around the house until the chicks become accustomed to their quarters. This may then be removed. In the orchard or at the side of a corn field is an ideal place to locate your colonies.

Once the chicks are on range the labor of attending them is very greatly reduced, but if good results are to be obtained it must be borne in mind that the chicks cannot be neglected. They should be kept growing every minute, from the time they leave the shell until they are matured. See that they are abundantly supplied with water, and keep hoppers of ground feed and scratch feed where they can help themselves, at all times. Some people prefer hand feeding the whole grain, but if the chicks have a good range they will forage well, and the hopper feeding of the grain saves a lot of time. If possible ,the chicks should have a regular supply of buttermilk; if milk is not obtainable it is advisable to see that the ground grain contains animal food in some form.

See that the houses are kept thoroughly clean and that they are, at all times, thoroughly ventilated. Make the chicks live as much as possible in the open air.

If you are keeping one of the lighter breeds such as Leghorns, all the surplus cockerels should be marketed as soon as they reach a pound and a half to two pounds weight. Many poultry keepers are following the plan of simply picking the cockerels off range and sending them to market; this is a mistake. If the cockerels are either put into crates or into pens for from ten days to two weeks before shipping to market, the increased gain will give a profit over the cost of feed, and the quality of the flesh is very greatly improved. If the market demands dressed broilers, the cockerels may be either dressed at home or it is generally possible to make arrangements with a dealer in town who will receive the live birds, dress them and deliver them to the customers at so much per pair.

With the Old Stock.—As soon as the breeding season is over it is advisable to begin to cull. Many old hens have been retained for the breeding season just past, that it would not pay to keep over another year. These may be kept until they pass the spring flush of laying, but just as soon as they begin to slow up they should be sent to market. Better prices can usually be obtained for old birds alive than dressed. Advantage should be taken of the Jewish holidays as better prices can then be obtained for fat hens.

Among the birds that have just passed the year, will also be a large number that should not be kept over as breeders. These also should be disposed of as soon as they show signs of ceasing production. All male birds, unless especially valuable as breeders, should also be sold, and those that are to be kept over should be separated from the flock, so that they will not cause loss by fertilizing the eggs as fertilized eggs spoil much more readily than do unfertilized.

In culling the flock it is the low producers that should be marketed. These will always be found among the fat, sleek-looking hens. The heavy producer will always be inclined to be rather ragged in feather, bleached out in both plumage, color of beak, legs and skin. The bird of good capacity is indicated by the depth between the keel bone and the back. The keel bone should run parallel without any inclination to run up at the back toward the pelvis. The abdomen should be soft and pliable, and the pelvic bones not heavily coated with fat.

The hens selected for keeping over should not be neglected through the summer; if in yards see that they are kept liberally supplied with tender green feed, and that they are given either milk or beef scrap to take the place of the grass-hoppers and bugs that they would naturally get on range.

If facilities are provided, birds of the type you are keeping will usually keep themselves free from lice by dusting, but they should be handled, occasionally to see if any body lice are present, and if so, they should be either dusted with a good lice powder or given an application of blue ointment; a piece about the size of a small pea applied below the vent, and under the wings will exterminate the lice.

Cleaning.—The houses should be thoroughly cleaned annually. This is best accomplished by cleaning out all the dirt and litter, sweep down the walls and ceilings, take out all moveable roosts, dropping boards and nest boxes, and thoroughly soaking the whole place with a good disinfectant, forcing it into the cracks with a spray pump. Then apply a coat of lime wash over the whole interior.

If an earth floor is used, about six inches of earth should be removed and fresh earth put in. The yards should be ploughed or spaded and a good cover crop such as rape or fall rye sown. This will leave the quarters in good condition for the pullets to come into in October or November.—GEO. ROBERTSON, Poultry Husbandman.

FALL AND WINTER CARE OF LAYERS.

During the early part of the growing season, the pullets which are to be kept for winter layers must be given proper treatment to ensure their being in good laying condition at the proper time. A check in the growth of pullets at any stage will retard laying at maturity. Free range on clean soil, with plenty of green food and shade, are essentials for good growth.

In order that the pullets may lay by the 1st of November they should be moved quietly to their winter laying quarters by the middle of September. They will then have a chance to become accustomed to their place before the cold weather sets in. Select only pullets with plenty of constitutional vigor, that are well matured, and in a good, thriving condition, if any good egg-production is to be expected. They should have a poultry house which is comfortable, light, dry, with a good supply of fresh air but free from draughts. Houses that face the south secure the most sunlight, which the birds enjoy. It is much better to have a cold, dry house than a warm, damp one.

Maximum egg-production is largely controlled by the methods of feeding as well as by the nature of the foods given. One of the principal factors in feeding is to compel the birds to take plenty of exercise. The floor of the house should be covered with a straw litter 8 or 10 inches deep, and the whole grains mixed in the litter whenever they are fed. All food serves various purposes in the building up of the hen's body and in the production of eggs, therefore a ration which will furnish energy, build up tissues, and supply material for the various parts of an egg will be necessary. A very good whole grain ration for the winter months is, 2 parts wheat, 2 parts cracked corn and 1 part good oats. Just enough grain is fed in the litter each morning to keep the hens busy scratching for several hours. In the evening they can be given practically all the grain they will pick up before going to roost.

More protein is necessary in the manufacture of eggs than is supplied by the whole grains. This may be furnished by ground beef-scraps mixed in a dry mash and fed in a self-feeding hopper. A good mash mixture is composed of wheat bran 200 lbs., cornmeal 100 lbs., middlings 100 lbs., finely ground oats 100 lbs., beef scraps 60 lbs., and charcoal 20 lbs. During the winter months some form of green food must be supplied each day. Alfalfa or clover hay, mangels and sprouted oats are excellent. Oyster shells and grit should be kept before the birds at all times. Clean water to drink is very necessary.

DISCARD THE BAD TYPES OF BULLS

Canadian Farmers Lose Millions by Keeping Scrubs Instead of Pure Breds

WHY PURE BRED SIRES

Canadian live stock men are intensely interested in the extension of the market for beef and beef products. In order to compete successfuly against other countries we must improve the quality of our livestock.

The Argentine Republic is without a doubt the hardest competitor for the English market. Today they are able to place a large quantity of beef on the English market at a very much lower price than Canadians. This product is very much superior in quality, therefore, the question confronting us is, what can we do to beat this competition?

As we look over the reports of auction sales held in Great Britain during the last ten years, we find that the big ranch owners of the Argentine have paid enormous prices for bulls to head their pure-bred herds.

Men who know conditions in the Argentine say that these high-priced bulls are first used on the smaller herds and later turned in on the range of cattle. It is little wonder that the quality of beef animals in that country is exceptionally high. Thus, we can readily se that we must follow the example of our strongest competitor and use only high-class pure-bred bulls on all our grade herds.

Figures from our Canadian stock yards show that only about 2% of the stock marketed during 1919 was fit for export trade.

To those who sit down and figure out the loss sustained, the figures are startling.

The average farmer loses about $30 to $40 per head on steers bred from grade sires.

Facts prove that in every instance the steers from pure-bred sires not only sell for higher prices, but make more rapid and more economical gains than these sired by grade bulls.

While we are well aware that high prices are obtainable for almost any kind of beef animal, yet it is very clear to those who follow market reports closely that the low grade stock are the first to suffer when the markets take a downward drop.

It is, therefore, quite clear that the use of grade sires is a losing proposition viewed from any angle.

It is high time that we discard inferior bulls whether they be grade or scrub purebreds.

This is important because of the fact that the bull used on a herd influences all the year's half crops.

Discard the inferior type of bull and increase your year's income.

C. F. MacKENZIE,
Fieldman, Ontario Cattle Breeders' Association.

VALUE OF THE HOME PAPER

Review of Reviews: Country weeklies are pre-eminently the home papers of newspaperdom. They are not hurriedly scanned while men travel to business, then left to brakemen to gather up. They go directly to homes where their reading is a duty as well as a pleasure. Hence their peculiar value as an advertising medium.

ALPINE ROPES BLESSED.

Swiss Alpine climbers, who in most cases, are godly men, at the beginning of the climbing season, bring their ropes and lay them at the foot of the mountains. Old and new ropes are piled in a heap, and then they are blessed by the pastor. Prayer is offered that the old ropes may still bear the strain safely and that the new ropes may prove equal to all the stress placed upon them. The guides are commended to the mercy of God that in their daily ascents they may be kept safe and that they may succor the travelers who trust in them.

VEGETABLES FOR MEDICINE

Watercress is an excellent blood purifier.

Lettuce has a soothing effect on the nerves and is excellent for sufferers from insomnia.

Tomatoes are good for a torpid liver, but should be avoided by gouty people.

Celery and onions are nerve tonic.

Spinach has great aperient qualities and is better than medicine for constipation.

Beets are fattening and good for people who want to put on flesh, so are potatoes.

Parsnips possess the same virtues as sarsaparilla.

NEW FALL HATS IN EMBROIDERED FELT

This chic fall creation is of hand-embroidered felt, the brim alone being the field for design. A rather narrow band encircling the high crown and bowed in front. The ends of the ribbon finished with either little balls or tassels. The under side of the brim is faced with delicate-tinted silk, preferably pink or blue, giving a beautiful cast of reflected light upon the face.