Soils and Crops

Address communications to Agronomist, 73 Adelaide St. West, Toronto

SAVING HOME-GROWN VEGETABLE SEED.

The vegetable garden seed plots at this season of the year require particular attention especially concerning cultivation, rogueing and protection against insects and diseases.

In all cases, the plumpness of the seed will be materially influenced by the amount of available moisture in the soil; this applies to all of the seed crops, whether of an annual or biennial character. Therefore, it is very essenital that the soil be kept clear of weeds and with a good soil mulch on top. Of course the length of time that cultivation can be continued will be influenced by the development of the seed heads. When the tops are liable to be broken off by the passing cultivator, it is advisable to discontinue cultivation. From this stage on, an occasional hoeing will suffice.

So as to maintain the purity of the various strains of varieties, rogueing, or the removal of all plants that are off type, should be carefully attended to. In the annual crops, this process should be carried out prior to the plants coming in bloom. This applies especially to radish, lettuce and spinach. In all the other crops, where cross fertilization does not take place as freely as in those mentioned, rogueing may be deferred, but should, however, be attended to as promptly as possible. In the biennial crops, rogue out all plants that are off type as soon as noticed, so as to give the remaining young palnts the additional space to develop.

In sects and diseases of various kinds often do material damage to the seed plants, therefore it is necessary to see that spraying is attended to. Combined insecticides and fungicides are recommended. Use 4-4-40 Bordeaux mixture as a fungicide, with the addition of arsenate of lime as an insecticide for leaf-eating insects, and where aphis are troublesome, the addition of nicotine sulphate or Black Leaf 40 will be found to be effective. If insects and diseases are allowed to go unchecked, the resulting seed crop will be found to be seriously impaired. By writing to the Dominion Horticulturist, Central Experimental Farm, Ottawa, Ont., asking for a spray calendar, which will be mailed free, gardeners can obtain information concerning the correct method of mixing the above mentioned materials for spraying.

Seed harvesting methods for the different crops vary considerably, but for the average-size plantation, most of the seed can be harvested by hand picking. In fact, a larger percentage of the plumpest seed can be saved in this way.

After the seed has been picked, it should be spread out thinly on sheets of cotton or paper to dry. Threshing and cleaning should be done at once and the seed labelle dand stored away in suitable containers.

BEEF SCRAP VERSUS SKIM-MILK FOR HENS.

It is an accepted fact that hens must have some form of animal protein in their feeding ration and this is usually supplied by beef scrap. Two years ago an experiment was started at the Experimental Farm, Nappan, N.S., to determine the relative values of beef scrap and skim-milk when added to the laying ration. Two pens were made up of ten birds each, as uniform in breeding, age and type as it was possible to select. The rations fed to each pen were alike and constant except that Pen 1 received beef scrap and Pen 2 skim-milk. The results obtained show the possibilities there are of realizing good value for skim-milk by feeding more of it to the hen.

The average production from the ten birds receiving beef scrap for the two six-months feeding periods (Nov. 1 to April 30 each year) was 615.6 eggs at a feed cost of $13.75 or 26.8 cents per dozen, leaving a profit over feed cost of 97.2 cents per bird. In Pen 2 the ten birds receiving skim-milk over the same period had an average production of 699.5 eggs at a feed cost of $12.70 or 21.8 cents per dozen, leaving a profit over feed cost of $1.49 per bird.

By taking the average of two years it was found that 598.7 pounds skim-milk valued at 20 cents per hundred and thus costing $1.20 gave greater returns than 39 pounds beef scrap at a market price of $7.24 per hundred, thus costing $2.62. If, as believed at the Experimental Farm, the increase in production from the pens receiving milk can be attributed to the value of skim-milk as a food for laying hens, it would only be fair to state that the farmer had received slightly better than one dollar per hundredweight for his skim-milk when he marketed it through his eggs.

As this feeding test has only been carried on for two years it does not permit our drawing definite conclusions yet. However, the results to date would lead one to believe that a part of the skim milk available on the farm can be very profitably marketed through the egg and would seem to be a more profitable proposition than paying $7 per hundred for beef scrap in order to supply the amount of protein so essential for profitable egg production.

POULTRY.

If a hen is to make a high annual egg record she must not only lay during most of the year but she must lay heavily while she is at it. The rate at which she lays is often referred to as her intensity.

It makes a deal of difference at the end of the year whether she has been laying five eggs in succession before skipping a day or laying but one egg every other day. One egg every two days would make a very good record if the performance could be continued throughout the year.

The facts are, however, that the hens which lay at this slow rate are usually the ones that also take the longest vacations. The hen that will lay five or six, and on up to twenty eggs in succession without skipping a day is much more likely to be a profit maker, since she soon piles up a total sufficient to pay for her year's keep, and then goes right on laying when other hens are starting to molt.

An inspection of a one or two months' individual egg record will often give a fairly reliable indication of the relative egg-laying ability of the hens in a flock. Some poultrymen are finding it worth while to trap-nest for short periods in order to get such a picture of individual performance, even though they realize that trap-nesting is too expensive a process for them to follow throughout the year.

Market Eggs Often.

When the seasonal trend of egg prices is upward there are some persons who are foolish enough to think that it is good business to hold eggs a few days or even a few weeks in anticipation of a higher price when finally taken to town.

As a matter of fact, those who follow this practice are really lowering the price to all producers. With the aid of a candling device it is not at all difficult for the egg buyer to know what is taking place. As a result of the lower quality he finds it necessary to discount the situation by paying a few cents less a dozen than new-laid eggs are actually worth.

It is then difficult for the honest poultryman to get all that he should for a high-quality product. One cannot for long get something for nothing, and in the business of producing and marketing poultry and eggs he is very foolish to try.

Blade Blight of Oats.

Casual organisms—Ps. avenae and B. avenae (Manns).

This disease occasionally causes heavy losses in the oat crops of Eastern Canada and eastern and central States of America. It attacks also barley, wheat and bluegrass to a limited extent, so says Prof. Dan Jones, Ontario Agricultural College.

It is most noticed in the spring and early summer when it causes the young plants to turn yellow, brown and red, withering them up. In the later part of the season it induces blast in the heads.

Its spread and the amount of damage it causes is largely dependent on weather conditions. The seasons when much rain, cloudiness and muggy weather prevail are the seasons most favorable for its development.

Primary infection is chiefly through the stomata resulting from spattering of the leaves by the rain with the organisms from the soil.

Two species of bacteria working together are considered necessary to cause the disease. They are found in the soil. They do not, however, affect the plant through the root.

Little can be done to prevent or control this disease except to select and breed resistant varieties.

The Rubbing Post.

Two or three good rubbing posts in a feedlot are the best fence savers that can be devised. The kind we like best is really two posts set solidly ten or twelve feet apart and three or four strands of barb wire twisted into sort of a cable. This cable is then stretched from one post to the other and about as high as a steer's back. The steers in the lot soon learn the use of this contrivance and spend a lot of enjoyable minutes rubbing against both posts and wire.

An old gunny sack wrapped around the bases of the posts and securely wired there and kept saturated with crude oil makes about as good a hog oiler as one would want.

The number of pure-bred horses in Canada increased 44 per cent. from 1911 to 1921 according to the figures of the Dominion Bureau of Statistics. The 1921 census showed 3,610,500 horses in the Dominion of which 47,782 or slightly more than 13 in every 1,000 were pure-bred.

Edouard Herriot, premier of France, has an inseparable companion in his pipe. Despite objections the two continue in each other's company at all times. This portrait forms an excellent character study of the man.

Making Neufchatel Cheese for Home Use.

Summer time is the time for picnics and that means sandwiches and lots of them.

Cheese sandwiches are popular and soft cheeses of various kinds can be made use of in sandwich making.

Neufchatel cheese is easily made, is not too rich, and by varying the flavoring materials a variety of sandwiches can be made to suit all tastes.

Neufchatel cheese may also be used plain, spread on bread or soda biscuits.

For making the cheese, whole milk may be used, but if the milk is not rich it will be well to add a little cream to it.

In the morning bring the milk to a temperature of 70 to 72 deg. F. and to one gallon add a teaspoonful of good flavored sour milk. Let it stand until late in the afternoon. If the milk has cooled, raise the temperature to 70 or 72 deg. F., then add 5 drops of rennet extract diluted with cold water.

Stir it well, then cover and leave it undisturbed until the next morning. It should then be firmly coagulated and ready for ladling.

Ladle out the curd and place it in a strainer or wooden rack which has been covered with cheesecloth.

When the free whey has drained away, lift the cloth to turn the curd over so that it will drain more rapidly.

When the curd becomes somewhat firm the cloth may be folded over and light pressure applied. When the curd is sufficiently drained salt should be added at the rate of one ounce of salt to three pounds of curd. Mix thoroughly and when the salt is dissolved, the cheese is ready for moulding into small blocks or for putting in small glass jars.

While the plain cheese is used largely, many prefer to add some flavoring material to it. Nuts are well liked and may be mixed with the cheese, using about two ounces to the pound. When using this as a sandwich filling it is well to add some salad dressing to it. It will be easier to spread on bread and the sandwiches will have more flavor.

Celery is another favorite flavoring. Chop the celery finely and mix it with the cheese. When celery cannot be procured, celery salt may be used instead.

Those who are fond of olives will enjoy sandwiches that have chopped olives added to the cheese filling.

The fancy cheese that we buy in the stores very often has pimento flavoring. If purchasing a tin get the small size, and what is not used for flavoring the cheese on hand place in a glass jar. Cover the pimentos with a mild brine and set the jar in a cool place. Do not be long in using it. Pimentos add flavoring and give a touch of color to salads and jellied meats as well as to sandwiches.—Belle Millar, Dairy Dept., O.A.C.

Observe at Harvest Time.

At this season of the year while working in the meadows and grain fields harvesting the crop, we have ample opportunity for observation. If the crop is heavy then our thoughts can drift elsewhere, but if the crop is thin, composed in part of wild grasses and useless weeds, a little time spent in reflection on the probable causes contributing to the poor crop should lead to good resolutions for improvement in methods of meadow management. Poverty of the soil, poor farming and unfavorable seasonal conditions are the three main reasons for indifferent crop production. The two first mentioned are under the control of the man and can be improved. As for the weather conditions, we must accept the frost and rain as a matter of course. We have observed that the man who farms well rarely fails to get a good crop and harvests it in good condition irrespective of seasonal conditions, which, by the way, are generally favorable to crop production in Ontario. Unfavorable conditions, such as frost, drouth, excess rain and low temperature, affect the crops of the indifferent farmer more seriously than those of the man that farms well. Consider well the causes of crop failure—there is a way out.

Insect Enemies.

The destructive work of many of the insect enemies of the fruit grower is becoming evident as the season advances. For those that faithfully applied the three necessary sprayings the crop season just ahead holds some hope For those that neglected to spray, the destructive work of the tent caterpillar, the coddling moth, the bud moth, the fall web-worm, the blister mite, the cigar case bearer, the tussoc moth, the curculio, and the canker worm will leave but little. Neglected trees are capital invested and labor lost to the insect pests. Consult Bulletin 250. Recognize your enemies and be prepared in good time to prevent further losses.

In Canada copper is mainly derived from the nickel-copper ores of the Sudbury district, Ontario, and the copper-gold-silver ores of British Columbia. Recent years have witnessed the development of important deposits at Britannia and other points on the Pacific coast; at Copper mountain near Princeton, British Columbia; and in the Pas district, northern Manitoba.

General Bramwell Booth recently dedicated his first grandson, still a baby in arms, to the Salvation Army, in the great assembly hall at Miles End, England. The little fellow's name is Stewart Wycliffe Booth.

Preparing Dairy Products for Exhibition

BY BELLE MILLAR, DAIRY DEPARTMENT, O.A.C.

The weeks are passing quickly and Exhibition time will soon be here.

Already many women have most of their fancy work-finished. They are now putting up the early fruits and vegetables and placing to one side the jars that will compete with others at the coming fall fair.

Although the butter is prepared later than most exhibits, it is a mistake to leave it until the last minute.

It is not a good plan to churn the morning of the fair. Far better to churn a couple of days earlier. The butter will be in better condition in every way for winning a prize.

Be careful about the flavor, as it is so important. Have the cream clean and sweet, or with a very mild acid flavor.

Keep it at a low temperature until churning time and churn at a temperature low enough to bring it in nice firm granules in from 20 to 30 minutes.

Have the wash water cold enough so that the butter will be of nice firmness when placed in the worker.

Try to work it in a cool place, but if this cannot be done and the butter commences to soften, stop working and put it away where it will become firmer before finishing the working.

Butter should be worked until it is close and the beads of moisture very small, if showing at all. The best way to try it is to cut the butter with the ladle and examine the cut side.

Let the butter packages be as nearly perfect as possible. Have the blocks of butter level and even, with the corners square and no cracks or openings in the block.

Fold the papers neatly and put the butter away carefully so that the prints will not get squeezed.

When taking the butter to the fair, protect it so that it will not soften in transit. This is very important because it is only at the large exhibitions that there is refrigeration for the butter.

Just a little hint for the one who is anxious about her butter. It is a good plan before printing the butter to cut out a small piece and set it aside in a cool place. Leave it for two or three days, then examine it critically. Ask yourself questions something like this: "Could the flavor be improved, or has it any undesirable flavor " "Is the butter close and free from any greasiness?" "Is the color bright and perfectly even?" "How about the salt?"

Butter for exhibition should be salted lightly. It is better to have too little than too much salt.

A few people make a small cheese to show at the exhibition. Sometimes there is only one exhibited at a fair, showing that home cheesemaking is not carried on to any extent.

The cheese should be made early and allowed to cure or ripen before exhibition time.

One fault found with many home-made cheese is allowing too much acid to develop during the process of cheesemaking.

If the milk is a little over-ripe it will be necessary to commence heating the curd sooner and to raise the temperature more rapidly so that the curd may be firmed before too much acid has developed.

There are many bulletins printed which give careful directions for each step in the process of cheesemaking.

Any one going in for the making of home cheese will find that like all other things, it requires practice.

It is worth while taking notes of your work in cheesemaking to have on hand when the cheese is ripened and cut. Much can be learned in this way that will prove helpful in making more.

GID SPARKS' PUP

BY DAVID H. TALMADGE.

One of the most entertaining features of the day at Stony Ridge annual picnic was not on the program. Gideon Sparks, who lives in the Ridge neighborhood, brought his family over as usual. Also, without purposing to do so, he brought the family dog. The dog, it seems, had disappeared that morning and had failed to respond to the efforts of Mr. Sparks to call him to a season of confinement in the barn. The dog's arrival at the picnic grounds, however, was almost simultaneous with that of the arrival of the family. His welcome was far from cordial. The horses responded to his palpable endeavors to make his coming seem agreeable, but the humans were cold and unresponsive.

Mr. Sparks looked at him sternly, then picked up a stone. "You get for home," he ordered. The words were followed by the stone, which missed its mark widely. Somebody laughed. Mr. Sparks does not enjoy laughter when directed at himself. He became red in the face and threw another stone. Then he picked up a stick and made a rush at the dog. There was more laughter.

Now the dog was not afraid of Mr. Sparks. Mr. Sparks had always treated him well. Wherefore he did not beat a rapid retreat. He simply dodged here and there, his mouth open as if laughing, his tail wagging. He intended to stay at the picnic, and if his master objected he was sorry, that was all. And he did stay, but only after a performance which several of the delighted spectators referred to later as a regular circus.

It is probable that had not Mr. Sparks stepped on a layer cake which his wife and the girls had prepared with much care the incident would not have become worthy of recollection. But Mr. Sparks stepped on the cake, and then he slipped and fell down, and then he lost his temper.

He cornered the dog presently and belabored the animal so heavily with the stick that a murmur of protest arose from the spectators. It was a pitiful spectacle. Not that the dog was being badly hurt, for he was not, but because Mr. Sparks, a superior animal, was demonstrating a sad lack of self-control. With each whack Mr. Sparks' anger increased. Mrs. Sparks and the girls began to weep.

Then came the second act.

Uncle Bije Sawyer, six feet upwards and in proportion sideways, placed his big hands on the angry man's shoulders and turned him around.

"That's about enough, Sparks," he growled. "I reckon you don't realize it in your present frame of mind, but no dog could ever make as big a fool of himself as you're making. And besides," he added, "you're spoiling the picnic."

In a flash the stick in Mr. Sparks' hand struck Uncle Bije in the leg. Whereupon Uncle Bije kicked Mr. Sparks. Then the two men glared at each other, and the spectators, to all intents and purposes, ceased to breathe.

"I've got a notion to wallop you, Sparks," said Uncle Bije, breaking the tense silence.

"Yes?" sneered Mr. Sparks. "I don't reckon I'd try it if I were you, Sawyer."

"Bah!" said Uncle Bije.

"Bah!" echoed Mr. Sparks.

At this point in the proceedings came a diversion. Mr. Sparks' dog, hostilities having been withdrawn from his immediate person, so to speak, cocked up first one ear, then the other, and began a nervous, stiff-legged movement about the two men. After a moment or two of this, he apparently reached a conclusion as to his duty in the situation. And having reached such conclusion he acted with much promptness.

"Wow!" wailed Uncle Bije. "Call off your dog; he's chewing my leg off!"

Which was considerable of an exaggeration. As a matter of fact, the dog had merely taken hold of Uncle Bije's trousers. He had announced his allegiance. Beating or no beating, Mr. Sparks was his man. True, Uncle Bije had made friendly interference in his behalf, but that made no difference. The Sparks' fight was his fight.

Gradually a grin overspread the face of Mr. Sparks, and, a bit more gradually, another grin supplanted the expression of mock fright on the countenance of Uncle Bije. The spectators laughed and clapped their hands. Some of them cheered.

The applause became more vociferous when Mr. Sparks called to the dog and held out his hand. In an instant the animal was leaping and cavorting with joy.

"I had a notion to let him eat you up, Bije." Mr. Sparks looked at Uncle Bije from the corner of an eye. "If it hadn't been for spoiling the picnic——" He turned suddenly to the dog. "You've had your way, confound you," he said severely. "I reckon you're going to be part of this here picnic after all. But I'm plumb disappointed in you. I thought you was a gentleman, but no gentleman would have laid hold of Uncle Bije the way you did after him trying to save you from a beating-up by a hot-tempered old fool." He leaned forward, patting the shaggy head affectionately. He swallowed a number of times before further words were possible. "Why, dog-gone you ,you put in for me when I wasn't deserving of it. Likely you're the only one in the whole world that would have done so. And I was walloping you just because you were smarter than your folks!"

Stony Ridge folks are agreed that the picnic was the most pleasant one they ever had. Somehow, after Mr. Sparks had lifted his head and looked at the crowd squarely from moist eyes, everybody seemed to forget all those little old feelings that sort of hold back the best spirit when a bunch of folks get together.

Had Spare Parts.

Betty—"There's Reggie Sapp in his car—wonder if he has any spare parts?"

Bess—"My dear! Have you never seen him in a bathing suit?"