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Efficient Farming

BROWN ROT OF STONE FRUITS.

Brown rot is found annually in the peach, plum and cherry orchards of Ontario. However in most years the attacks of this fungus are not severe and it is only when weather conditions are extremely favorable to its development that serious epidemics of brown rot occur and great financial loss to the grower results.

The destructive attack of this fungus has assumed two forms—one an infection of the blossoms, causing blossom blight, and the other a rotting of the fruit as it approaches maturity.

Blossom blight, especially on cherries, is often severe if damp, muggy weather prevails at that time. Again if the same weather conditions prevail at the time of ripening of the fruit brown rot sets in and great loss to the crop will result unless careful, well-timed, suitable sprays or dusts are thoroughly applied. Blossom blight is generally initiated as a browning of the calyx lobe, but later may spread to involve the whole flower and the stem which bears it. Such blossoms are killed and are therefore worthless from the standpoint of fruit production and they also serve to spread the disease throughout the orchard, since countless numbers of spores are produced thereon. These spores are carried by the wind to the fruit where they germinate under favorable conditions and cause infection.

Systematic pruning that tends to produce an open head is of prime importance in controlling brown rot, as bad air drainage favors this disease. Thorough applications of lime sulphur or Bordeaux mixture just before the blossoms open (when they show white); just after the petals have fallen and when the shucks are shed should give good control. About 3 to 4 weeks before harvest if damp muggy weather prevails an additional spray will be necessary. Many growers are applying dust instead of spray for the later applications. In such cases a dust may be applied at any time up until harvesting if weather conditions warrant it.

In the Niagara peninsula peaches generally are not sprayed for brown rot, as they receive only the dormant application for scale and peach leaf curl. If, however, later applications are applied, self-boiled lime sulphur, wettable sulphur, or sulphur dust should be used. The first brown rot application on plums is generally delayed until the shucks are off the fruit.

The brown rot fungus lives through the winter on the mummied fruit that hangs to the tree or falls to the ground. Mummied fruit that falls to the ground and is not too deeply buried will give rise in the spring to microscopic, stalked, cup-shaped fruiting bodies which produce the spores that initiate blossom infection. However, if the mummified fruit is plowed deeply under they are unable to produce spores. This is the reason that plowing and cultivation of the orchard in the spring until after blossoming time is recommended. Such practices tend to bury the mummified fruit and prevent the production of spores.—Garven N. Berkeley, Pathologist.

SUMMER HOUSES FOR HOGS.

"I use summer cabins for my brood sows and produce pork economically," is a statement recently made by a hog raiser to a group of about forty neighbors. From the nods of assent and from the discussion which followed it was easy to see that confidence in the movable hog houses was about unanimous in that gathering.

The same statement made in that community ten years ago would have caused a heated argument.

The attitude of the average hog raiser toward the small movable hog house has changed.

To-day the average man knows that by putting a sow out in a clean movable house he is subjecting her to about the same conditions as when years ago he got such nice litters by letting his sows farrow in a plum thicket or a straw stack. He realizes that the little shed is getting back to nature and is even better than a straw pile, because the sow and pigs are protected from severe cold and rainstorms. More and better pigs are raised.

These houses may be used in a number of different ways with good results. They may be used very satisfactorily for farrowing. If used for early farrowing several of them should be placed side by side and banked with straw. For late farrowing they need no banking.

They may be used to house the sows which have been farrowed out in the central hog house and later moved to a clean field. Small houses are being used quite extensively as a part of a definite system of hog-lot sanitation.

In following out one popular plan of hog-lot sanitation the central house is scrubbed with boiling lye water and sprayed with a good disenfectant. The pens are then bedded with clean bedding. The sows are thoroughly brushed and their feet, legs and udders are washed with soapy water just before they are placed in the clean pens.

When the pigs are from ten days to two weeks old they are taken, with the sow, out of the central house for the first time and are hauled to a small shed in a pasture where no hogs have been since a crop was grown.

There the pigs are kept until they are about four months old, at which time they may be allowed the freedom of the old yards with no bad results.

Disease is reduced to the minimum where movable houses are used in connection with a systematic method of raising hogs in a sanitary way. Roundworms and filth-born diseases are prevented.

As a result of having available plenty of pasture another link in the chain of economical production is provided, and one of our cheapest and best feeds is used to a greater extent.

These facts are the basis upon which the principles of a definite system of hog-lot sanitation have been worked out. The idea being none other than to raise more pigs per sow to a marketable age, to raise them in a reasonable length of time and at a cost sufficiently low to insure a fair profit.

Fixing Up the Old Home

The natural beauty of the location of our homestead should have made it attractive, but because of dilapidated fences, lack of shrubbery, holes in the lawn and mud at the doorways, it was not. So my first work after gaining possession, was the removal of some of the fences and the straightening of others, the planting of shrubbery which I obtained for the asking, building gravel walks from the entrances and leveling the lawn, all of which cost me only my labor. It has resulted in an improved appearance which now draws favorable comment from passerby and, in the end, improves the value of the whole farm. —J. B.

When we moved on our present farm, the front yard was filled with stone which were once the wall of an old hall. The yard was also very uneven. We removed such stone as could not be covered, filled in with dirt, making the yard level. Trees and shrubs were planted, while a vine, supported by wire, forms an arch over the gate. Evergreen trees now form a row along the driveway. Trees and brush, not touched for years, were pruned. An old silo pit, from which the silo had been removed, was filled with earth and planted to flowers and vines. This has brought about a wonderful transformation in our home. —J. H. D.

I moved on this farm three years ago. While the buildings were good, the yard was literally filled with old machinery and other rubbish and inclosed with an old stump fence. I moved the machinery out of sight, burned the fence and raked the yard. Some shade trees were set out and old rose bushes pruned. When the grass started, we had the satisfaction of knowing that our neighbors appreciated the change.—J. G.

The yard of an old neglected home was plowed and graded. The house was painted. A hedge of lilacs were planted on this slope. At the north side of the house shrubs that did not require much sunshine were planted. Along the borders, spirea were put in. Near the house a bed of giant pansies resulted from two five-cent packets of seed. On the end of the front porch boxes of climbing nasturtiums were placed. These were supplied from three packages of seed. Maples from the woods were also planted in the yard, while a few rosebushes, secured from a generous neighbor, found their proper place in the arrangement. While the results were transforming, it cost us just a little more than a day's work with the team and the necessary farm tools. It has brought us much comfort.—Mrs. A. K.

Never would you suspect that there was an old house within the convenient farm dwelling we now live in. When we bought this farm ten years ago, I could just hear some old trellises calling out for vines to twine around them. Soon I had clematis and honeysuckle running riot over these supports. How much they did add to the appearance of our home.

Spirea were planted in front of the porch with ferns between. The spirea is beautiful in the spring with its sprays of white blossoms, while the ferns stay green until the fall frosts are here. A rose garden has also been planted at the rear of the house. From our dining-room windows we can see flowers in bloom from the earliest tulips to the latest chrysanthmums. I love the perennials and am using more of them every year, as they require less care than the annuals.

Through replacing the little porch with a deep verandah that extends across the north side of the house and around to the east side, we secure a great deal of enjoyment. In remodelling the old house it has given us a handy kitchen with a dumb-waiter and a basement that occupies nearly the full floor area inclosed with high, dry, smooth walls. Upstairs there are three bedrooms and a bath and sewing room. Closets and draws are abundant. Furnace heat, electric lights and running water complete the modern home.

We thought at first we could not afford to make these changes, but by doing much of the work ourselves, it has cost us comparatively little and we are glad we did it. One can find more elaborate farm houses, but every dollar in this come from our hundred-acre farm.—J. E. M.

Farmers' Days at O.A.C.

The O. A. College live stock has always enjoyed an excellent reputation with the farmers of the province. It has never been exhibited at the fairs, but we are going to have a live stock parade at the College on Farmers' Days, June 12th and 13th. With 100 head of excellent College stock lined up on the campus it will be quite a little show in itself. At the same hour the departmental floats will appear in parade to illustrate the progress of agriculture during the past half century. Farmers from all counties are coming. All roads will lead to Guelph during the O.A.C. Semi-Centennial.

The Sunday School Lesson

JUNE 8.

Ezekiel Encourages the Exiles, Psalm 137; 1-6; Ezekiel 34. Golden Text—I will seek that which was lost, and will bring back that which was driven away. — Ezekiel 34: 16.

Ezekiel was a priest of the temple in Jerusalem, who was carried captive to Babylon in B.C. 597, when the Chaldeans first took Jerusalem, 2 Kings 24:10-16. Five years later he was called of God to be a prophet to his fellow exiles in that far-off land.

Before the final destruction of Jerusalem in B.C. 586, he had the hard task of rebuking false hopes of a speedy deliverance and restoration, and of endeavoring to justify to the exiles the doom of their beloved city, chs. 1 to 24. After the fall of the city he bears to them messages of hope (see chs. 33-39), and portrays in bright colors and with an architect's exactness and fulness of detail, the rebuilding of the city and temple and reconstruction of the national life in a golden age of the future. His ministry continued for a period of rather more than a score of years.

Psalm 137 presents a vivid picture of the exiles in Babylon, their homesickness, their passionate love for the city of their fathers, and their hatred both of their Babylonian conquerors and their treacherous and heartless Edomite neighbors.

Chapter 34 of Ezekiel is the "chapter of the Good Shepherd." Compare John, ch. 10. The prophet denounces the evil rulers of Israel as false shepherds. They have been utterly selfish, caring only for their own enrichment and the satisfaction of their own desires. *"Woe be to the shepherds of Israel that do feed themselves! should not the shepherds feed the sheep?"* Ezekiel believes that rulers should care first and before all else for the well-being of the people, and especially for the weak, the erring, and the needy. He declares that Israel's princes have not done this. They have fattened themselves, but they have not fed the sheep, and they have no care for the sick, and the weak, and the injured, and those which have been driven away or lost. The calamities which have come upon the people he charges to the folly and selfish greed of the rulers, vs. 11-16.

Behild I. The promise of God is that he himself will replace the false shepherds and will care for his flock. His especial care will be for the lost and the wandering. They are to him objects not of wrath, but of compassion. He will *"seek them out"* and will deliver them. The promise is especially for the scattered exiles and wanderers of Israel, whom God will bring again to their own land. The picture which is presented here is one of delightful security and peace, *"in a good fold, and in a fat pasture,"* and under the over-shadowing, ever-watchful care of their divine shepherd.

Vs. 25, 26. There is a prediction in vs.23 and 24 of the coming Messianic king, foretold by Isaiah and Micah and again by Jeremiah. He will be, so to speak, an under-shepherd, caring for the flock of God, who will make with them a *"covenant of peace,"* ensuring peace and prosperity for the days to come. All *"evil beasts,"* that is, probably, foreign invaders and oppressors, will be driven out of the land, and even in wood and wilderness there will be no fear of harm. The land itself, in this brighter future, will be made abundantly productive. God's rich favors will be poured out freely. *"There shall be showers of blessing."*

We still wait, as Israel waited, for this age of material good which will be extended to all. Perhaps when men have learned to live together as brothers it will come. Our lesson will suggest that much may be done by our rulers towards this end, that government is for the people—for all the people—and that the chief care of government must always be for those who need. Not wealth for the few, but welfare for all, must be the aim. The ideal of the good shepherd is the ideal of the right-minded ruler.

APPLICATION.

The colony of Jews was planted in Babylon, and perhaps it was only then that they bethought themselves of the strange import of their prophet's message. But Jeremiah was not amongst the captives. He stayed with the "dregs" of the nation. He went with the "dregs" into Egypt, an exile, too, from Palestine. A younger man heard the voice of the Lord in the land of captivity. He knew Jeremiah well, and his blood had often bounded faster through his veins, at the sound of the master's heroic voice. It was the task of this younger prophet—Ezekiel—to carry on his older brother's work, and to sustain the sinking hearts of his fellow-exiles in Babylon. Let us set down in order the different messages that Ezekiel delivered.

1. He supplemented Jeremiah's prediction that Jerusalem would fall. The first half of Ezekiel's book is concerned chiefly with the impending downfall of Jerusalem.

2. But Ezekiel was mainly a watchman, or pastor of souls in the land of exile. His duty it was to prepare the people for their new role in human history. He never halted in his belief that somehow the nation would be reconstituted on the soil of Palestine. There God would give it a second chance.

3. Consequently Ezekiel's message was one of hope and restoration.

4. A very important part of Ezekiel's preaching was his doctrine of individual responsibility. Had men not preached to the individual before? Jeremiah saw plainly that religion was more an affair of the individual than of the state, but it was reserved for Ezekiel to put this truth in the sharpest possible way.

What is the place of Ezekiel in the succession of Hebrew prophets? Opinions differ on details, but all agree that Ezekiel must be placed high on the roll of honor. But for him, the religion of Israel would have dwindled and died in Babylon. On all sides were the evidences of the all-powerful paganism. That religion was a gorgeous and successful affair. But Ezekiel taught his people that the Lord was mightier than the idols of Babylon, stronger and more moral than the gods of the cruel empire, that for the time being had everything on its side. Ezekiel's great merit was that he answered perfectly to the need of the hour in which he lived. He bore his people on his heart.

For Home and Country

GIRL'S JUDGING COMPETITIONS.

This year a number of counties of Ontario are having competitions for girls in judging household exhibits. In most cases these competitions are organized by the Agricultural Representative, a coach for the girls being sent out by the Institutes Branch for a few days' instruction previous to the competition. In a number of districts, the Women's Institutes have assisted materially with this work by offering prizes, catering for the contestants on the day of the competition, furnishing material to be judged, etc. In South Simcoe, the Institutes are themselves organizing a competition. These girls' judging competitions not only provide practical follow-up work after courses in domestic science; they establish in the minds of the girls standards of quality and a pride in producing only the best. We feel that any assistance along this line is a worth-while piece of home economics work for the Women's Institute.

LOCAL EXTENSION WORK.

The Westbrook Branch of the Frontenac Women's Institutes did a unique piece of extension work when, in conjunction with the pupils of the short course in home economics at the Eastern Dairy School, Kingston, they served tea to about eighty ladies of a nearby township who are considering forming a branch of the Women's Institutes.

Tea was served at the close of an address by Miss Chapman. The District President received the guests while the local President presided at the meeting and the Vice-Presidents poured tea. Junior members of the Institute provided a musical treat during the tea hour.

The meeting served greatly to foster the widening influence an Institute should exert. It also stimulated a spirit of co-operation and illustrated the beauty of its being more blessed to give than to receive—in this mercenary age of the world a free-will gift to humanity. The Institutes of Frontenac greatly appreciate the aid of the Principal of the Dairy School, Mr. Zufelt, in making such a gathering possible.

STANDING COMMITTEE WORK IN A BRANCH INSTITUTE.

Occasionally the question arises as to how standing committees can function in a branch Institute. In an Institute of small membership, the system of having five or six separate standing committees may not be workable. We have cases, however, where the standing committees have been a definite strength to the Institute. Of these Dryden furnishes perhaps the most outstanding example, with Committees on Better Schools, Home Economics, Public Health, Publicity and Immigration.

The School Committee met the teachers upon their arrival for the fall term and found temporary boarding places for them. They arranged a reception for the teachers and parents. At the opening of the new school, this committee arranged the refreshments and the entertainment, taking care of a crowd of about seven hundred people. Perhaps in this feature, as much as in any other, the Institute won the warm appreciation of the school board. A piano was provided for the school, the money being raised partly through teas given by the Institute and partly through a dance given by the teachers, with which the School Committee assisted.

The Home Economics Committee has been instrumental in introducing sewing in the public school. The primary teachers volunteered to give an hour a week to teach sewing to the senior girls and the Institute provided the necessary supplies, also gave prizes for the best work done.

The Committee on Public Health assisted the Public Health nurse at her baby clinics, sent home-cooked dishes to a tubercular patient, bought linen and other supplies which the nurse required for a patient who had not been in town long enough to be settled. They served tea to the mothers at a baby contest at the fair. They arranged for addresses on dental hygiene and goitre, these addresses being given by a dentist and doctor at the regular meetings. When the school nurse found a number of girls who were under weight, the Institute, at the recommendation of the health committee, gave prizes to the girl who gained the most from drinking milk. This committee presented the school children with weight charts and persuaded those under weight to take milk to school.

The Publicity Committee attended to the advertising of meetings and made the doings of the Institute known throughout the community.

The duty of the Committee on Immigration was to visit new families, introduce them to neighbors, put them in touch with their church society, assist in times of sickness, and introduce the public health nurse to them. During the year they called on about two dozen families and found that their advances were welcomed by the new-comers.

Note.—An Institute with a rural membership would naturally feature strongly a Committee on Agriculture. The Provincial Committee would also be pleased to hear from any Institute having an active Committee on Legislation.

FRESH MEAT AT COST ALL SUMMER

BY C. A. HOGSHEAD.

Since so many farmers have little or no fresh meat during the summer months because of the high cost of beef at the butcher shop, or perhaps because of distance from the town butcher or both, I thought it might interest some one to know how so many beef clubs are conducted in my neighborhood. There are some old clubs. It is not often that one not a member of a beef club has a chance to join a club. He generally has to organize a new club. This is evidence enough that they are very satisfactory in supplying beef during the hot months.

First, look up eight men who would like to have fresh meat during the summer, who are interested to the extent of furnishing a beef. Meet and elect your officers, the most important being the secretary. You decide on price of beef, when you will begin butchering, how often, what size, whether steer or heifer or both, how fed, each man's time in butchering, whether two men of the club will agree to butcher all the beeves for a reasonable fee at the owners' farms or whether each man kills his beef and cuts it himself. To have good beef it should be grain fed—the longer the better. Each one can well afford to feed one beef grain when he remembers that he is to help eat seven other well-fed beeves.

THE SECRETARY'S JOB.

The secretary keeps record of weight of animal furnished by each member, also what price, and weight received by each member at each butchering, so that each member at the end of the season, has had a whole beef. The secretary books the pieces as "foreleg," "hind leg," "neck," and "rump."

Two members of our club kill, cut up and divide the meat for our club for a small fee and do a nicer job than if Tom, Dick or Harry did the work. The beeves are killed on the several owners farms in the early morning (before the flies are bad) on Friday. In some clubs each man kills his own beef and takes it quartered to a central point for further cutting and weighing. Some clubs use one pair steelyards to do all the weighing for the club. This is easily carried about. The owner of each animal gets the hide, heart and liver of his own animal.

Clubs vary in the size of beef to be butchered. Some want 300-lb. beeves, net weight; some want 350 pounds, and some want 400 pounds. (All beef is the same price).

WE BEGIN BUTCHERING IN MAY.

Our club begins butchering the latter part of May, kills one beef every two weeks until four have been killed. By this time harvesting, haying, etc., are over, and we kill no more for three or four weeks. Then we kill one every two weeks until four more are killed, thus having beef for silo filling, corn cutting, wheat sowing, etc. Then we meet, settle up, and the thing is done. In this way, when each one does his part, you have a most satisfactory source of meat supply.

A word as to keeping: You may use a refrigerator, an ice-box, or hang the meat down in a well near the water, in an earthen or wooden vessel. Better still, if you fill an ice-house, dig down into the ice, having beef in bag or in a vessel. Cover over with ice and it will keep a long time, provided the ice does not melt off. We cut our steak ready to fry, pack in half-gallon fruit jars, bury in the ice, and often draw out a half-gallon jar without disturbing the rest.

Have an understanding about age of animals. If you kill old or poor beeves, you will be dissatisfied.

Sometimes, when you do not have ice you could also have an ice club, too.

If man had not become a hunter for meat he would still be in the forest.—Dr. Harry Campbell.

The final test of fitness to govern is always willingness to be governed.—Dr. L. P. Jacks.

Costly Cockerels.

I walked into the store of a local produce buyer one day and found him candling eggs.

"Do you make a separate grade for each of those four cases?" I inquired.

"Five," he corrected: "don't forget the discard. That grade will not go to market, of course, but it costs the farmers of Canada a grand total of $500,000 a year in round numbers to produce it."

"That's a lot of money," I finally contrived to remark. "Isn't there something farmers can do to relieve themselves of the burden?"

"Sure there is," he snapped. "It is merely a matter of general agreement to 'swat the rooster.' And if every farmer in this community would put that advice into execution I could throw away that candling device and buy eggs blindfolded.

"Why, do you know," he continued, warming up, "that the average temperature of this section of the country during July and August is sufficiently high to start the process of incubation in a fertile egg?

"I would not say that a fertile egg would hatch at a temperature much less than 100 degrees, but I do know, from my own experience, that incubation often begins at 70 degrees. The strength of the embryo, of course, determines just how long it will develop before it dies from lack of heat, but it does not require many hours for it to reach a point where it will be candled out of a shipment, or, at least, take a low grade. And a weak embryo will live long enough to form a blood ring.

"With 70 degrees as a starting point, you can imagine what the days of July and August would do to eggs, with the thermometer seldom registering below 75 degrees. I can assure you that cold-storage operators have very good reasons for preferring the spring-laid eggs even though they have to hold them much longer before placing them on the market."

"Assuming that the weak embryo of an egg becomes chilled and dies within an hour or so after it is laid," I inquired, "does that make the eggs more valuable."

"Not much," he exclaimed. "It requires considerable of a chill to kill the embryo of an egg in the early stages of its development.

"On the other hand, assuming as you said, that the embryo of the egg died within an hour after it was exposed to a temperature of less than 70 degrees; you still have to contend with the possibility of the dead embryo setting up a process of decay. And that is what really happens in the production of a rotten egg. An infertile egg will deteriorate, of course; but its contents do not often decay, they merely dry up."

The Big Idea in Corn Cultivation.

It is frequently a long time between a discovery of a principle and the putting of that principal to use.

There is the case of the dust-mulch theory of cultivation. They used to tell us that weeds were a good thing because weeds spurred on the farmer to keep the cultivators going. But long and exhaustive trials have shown that with weeds otherwise eliminated cultivation does the crop no good.

Out in Hawaii they are now using paper instead of the plow in pineapple and sugar-cane fields. Cheap paper is made from sugar-cane bagasse. Spread down the rows, this paper smothers out the weeds, and a maximum crop is produced with a minimum effort. The soil is not stirred at all.

The big idea in cultivating any crop is to keep down the weeds; yet with corn, one of our cultivated crops, old-style implements, designed primarily to produce a dust mulch, are still in use. Somebody may yet hit on a betted implement design for weed-killing purposes. Then will pass the old dust-mulch theory, and attention will be centred on weeds, where attention belongs.

Last year I discovered one farmer who had stepped boldly in this direction. He led me out to see a magnificent field of corn.

"This field," he said, "I cultivated with a mowing machine.

"I did not need the whole machine of course. Just took a wheel. This wheel dragged up and down a row is about as good a weed killer as I have ever found for certain friable types of land."