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

SUGGESTIONS FOR THIS YEAR'S SPRAYING.

1. Do not spray at all unless you are going to try to do it well. It will not pay.

2. You cannot make a success of apple growing without good spraying.

3. You canont spray well without a good outfit which will give you plenty of pressure. So overhaul the old spray machine at once, or if it is not satisfactory, buy a new one with plenty of power.

4. Get a spray calendar from your agricultural representative, or from Mr. P. W. Hodgetts, Director Fruit Branch, Toronto, or Prof. L. Caesar, O.A.C., Guelph. Tack it up in the spray shed where it will always be available.

5. Use only the spray materials recommended in the spray calendars.

6. Do not spray when it happens to be convenient but spray at the times the spray calendar says. The time of spraying is of vast importance and the times given in the spray calendar are based on years of study.

7. Omit none of the first three regular sprays, some years the first is the most important, some the second and some the third. Each spray helps to make the next more effective and each must be given to insure clean fruit.

8. McIntosh and Snow trees should always receive a fourth application. Read what the spray calendar recommends under "Extra sprays and remarks" and be guided by it.

9. You will not control San Jose scale on large trees, twenty-five years old or more, unless you first prune them heavily and scrape the loose bark off with a hoe. Then see that every particle of the bark is wet with the liquid; a mere mist or a light spray will not kill the insect. Use lime sulphur 1 to 7 of water, preferably just as the buds are bursting.

10. For scab and codling moth cover both sides of every fruit and also cover every leaf. Scab attacks the leaves too and is often washed from them to the fruit. It will require from 7 to 13 gallons for each tree twenty-five years old or upwards, not just 2 or 3 gallons.

11. Be sure the spray reaches right through the trees. To insure this go in, if necessary, underneath the tree and spray the part beyond the trunk first, then step back to the outside and spray the remaining part. Do this from both sides. Remember that it is the centre or shaded part of the tree where scab naturally is worst and poor sprayers nearly always miss this side though they often cover the sunny or outer side all right.

12. A tower, even with a spray gun, is a great help. Often it will suffice to stand on the tank. A railing or support on it removes the danger of falling.

13. Do not use large openings in the discs of either nozzles or spray guns unless you have 225 pounds pressure or more. They are wasteful, make it difficult to maintain high pressure, and give too coarse a spray.

14. In many cases better work will be done with a rod and three-angle disc nozzles than with a gun. In any case use some system in spraying so that you will make sure everything is being covered in a methodical way.

15. Have a handy place to fill the tank. Ten minutes should be long enough for any tank.

16. Do not stop spraying because rain threatens. Go right on until the rain has well begun. It is rain and moisture which cause scab outbreaks.

17. Do not stick to an eight or ten hour day when spraying, but make every effort to get it done as soon as possible without sacrificing thoroughness. If the second spray is not finished before the blossoms open, omit the poison and go on until it is finished.

18. Wash out the tank and pump clean water through the machine and nozzles at the close of each day.

19. Remember spraying gives healthy foliage and is a great factor in producing annual crops as well as giving clean fruit. Even trees that are not bearing should be sprayed to keep them healthy.

20. Get a new spray calendar each year.

21. When in difficulty consult your agricultural representative or write to Prof. L. Caesar, O.A.C., Guelph, or W. A. Ross, Vineland.

UNTHRIFTY HORSES.

Horses are frequently seen that give little response to liberal feeding and care, continuing unthrifty due to the presence of intestinal parasites, a point often overlooked in the care of animals.

Variable appetite, unthrifty and poor condition, indigestion with periodic attacks of colic, are the common indications of the presence of cestodes, or tape worms. Two species of tape worm infest the intestines of the horse; one, the *Tenia Plicata*, ranges from six inches to thirty inches in length; the other, *Tenia Perfoliata*, is from one to two inches long. Both have comparatively large, four-sided heads in which are fashioned four round cup-shaped suckers. Their bodies consist of a number of overlapping segments. The tape worm segment, or joint, is a complete reproductive organization. When ripe, detached and expelled with the contents of the bowels it can be described as a small rectangular body containing eggs. After breaking away the eggs may be drifted or carried from place to place by various agents. Many perish, but a few are able to continue the species by being taken up in food or water by other animals, in the intestines of which they go through their life cycle and provide for the carrying on of the next generation.

Preventive measures consist in providing clean fodder and water; the avoidance of low, damp pasture land and ponds contaminated by the droppings of horses. If tape worm is suspected and no qualified veterinary is available to administer treatment, the following dosage can be given: creolin, one-half ounce; oil of turpentine, one and a half ounces; and raw linseed oil, one pint; to be given at one dose as a drench, on an empty stomach. The treatment may be repeated at intervals of several days, if necessary. Clean fodder and clean drinking water are highly important in keeping live stock healthy and free from intestinal parasites. Drinking from filthy, shallow pools or ponds in which hogs wallow and cattle and horses wade is responsible for considerable trouble, and this trouble does not usually show up until late winter or early spring. A cement water trough, well supplied with clean, cold water, is the best insurance against tape worm in horses. —L. Stevenson.

Plantin' Time.

Some folkses put their trust in signs,
When plantin' spuds, cucumber vines,
An' other kinds o' garden truck;
They'll tell you that the moon ain't right,
An' you must wait till dark or light,
Which ever 'tis, if you'd have luck.

An' one will say, "The moon is dry,
The way she's hangin' in the sky,
An' crops are apt to burn," they'll fret;
But someone else, as like as not,
Will say, "The seeds are goin' to rot,"
An' tell you that same moon is wet.

But I don't mind their talk at all,
For when I hear the robins call,
An' geese a-honkin' in the sky,
When every breeze smells fresh an' sweet,
An' ground breaks mellow under feet,
I reckon plantin' time is nigh.

—Myrtle Blassing.

Have a May-Pole Dance at Your Spring Social.

The May-pole dance given by children is always attractive. The dance should be given out-of-doors or on the floor of a large hall, as space is required. The pole should be from twelve to fifteen feet in height, with streamers of colored muslin attached near the top. An equal number of boys and girls might take part. Eight of each, perhaps. Each child takes hold of the end of a streamer and, when the music starts, the girls dance around a circle in one direction, the boys in another, passing each other in a way which weaves the streamers around the pole. Continue until the circle grows too small for further dancing. When the music starts again the dancers go in the opposite direction until the weaving is undone. There are beautiful musical numbers which you might have also. If you have no musicians upon whom you can depend, use a talking machine. The following records will be found suitable: "Oh, That We Two Were Maying," "Mendelssohn's Spring Song," Rubenstein's "Melody in F," "Lass of Richmond Hill," and "Morning," by Grieg.

Prune the Berry Bushes.

The old canes of raspberries and blackberries should all be removed before the new wood gets too far advanced. Sometimes I have seen these old canes left in the patch for years at a time, until it became almost impossible to get around to pick the berries. The right time to cut them out is just after the fruit has been picked, for then any insect or fungus trouble will be eliminated before it gets a chance to move over into the young canes.

No cane that has borne fruit will bear again. Next year's fruit will be on the new canes that grow during the season when the previous year's canes are fruiting. If the work is not done then, it should be done at the first opportunity after, and never later than the time the plants begin to swell the buds in the spring. You can remove weak new growths then, and thin strong canes to three or four to the hill with advantage. You gain in quality to make up for the number of berries you remove.

Spraying Apples.

The Department of Entomology of the Ontario Agricultural College conducted spraying experiments on a ten-acre block of McIntosh and Snow varieties at Simcoe in Norfolk County. The whole orchard, with the exception of the trees kept for checks were sprayed, part of it receiving four applications and part only three. The crop was fairly good—about 1,000 barrels—and the results from both commercial and the investigational standpoints very satisfactory, the percentage of apples absolutely free from worms or scab or defect of any kind being 93.4, whereas the checks (unsprayed trees) had an average of 91.2 per cent. of scab alone. One of the objects of the experiment was to show that even McIntosh and Snow apples could be kept free, or almost free, from worms and scab by good spraying.

Roads, to be good roads, must be good roads on bad days.

THE CHILDREN'S HOUR

DR. QUACK FOX TAKES A TUMBLE AND LEARNS A LESSON.

Do all our little folks remember how Dr. Quack Fox fooled Bruin by giving him a bottle of cough syrup for a bottle of "Sooth-all?"

Well, it was just a week from the very day that Dr. Quack Fox played this trick that he found it necessary to again take the road that lead past Rolly Rabbit's house. As he neared the house he chuckled to think how cleverly he had fooled Bruin and made a profit for himself.

"That was a good trick on Bruin," he said to himself. "I wonder when he discovered it? I would like to know, but I guess I won't stop to find out. I might get one played on me."

In fact, he was thinking so much about his clever little trick that he did not look where he was going. Just as he was right in front of Rolly's house, he stubbed his toe on a rock in the path and down he went, kerplunk. His case flew open and bottles scattered in every direction.

Rolly was preparing a porridge for the noon meal by the kitchen window, and saw it all. At first he wanted to laugh, but his heart was kind and gracious. Forgetting the mean trick, Dr. Fox had played on his friend, he hastened out to help him.

The doctor was just picking himself up when Rolly reached him.

"Oh, sir, are you hurt?" asked Rolly sympathetically.

"My toe is," said Dr. Fox, "and my knee hurts dreadfully where it bumped the rock."

"Oh, I'm so sorry," said Rolly. "Come right in the house. We will fix it up in just a few minutes. I am sure that I have something that will help it." And so Dr. Fox went limping along into the house with Rolly Rabbit, groaning at every step.

Bruin sat reading the last edition of Woodland News when they came in, and was quite surprised when he saw who it was. But when Rolly Rabbit explained that the doctor had fallen and hurt himself badly, he was just as anxious to help as Rolly.

In a short time they had the bruised foot all bandaged with "Sooth-all."

"And does that feel better?" asked Bruin as he tied the last bandage.

"Oh, ever so much better," replied Dr. Fox. "Thank you both so much."

"Oh, we are very glad to help you," said Rolly.

"And may I ask why?" asked Dr. Fox.

"Because we would like to be helped that way ourselves," answered Rolly.

As Dr. Quack Fox limped toward the door, he said, "I have learned a lesson from you to-day. I can't thank you enough for all you have done for me. You have been kind to me even after I played that mean trick on Bruin. Now I know what friends really mean and I'm going to try to make more of them. I hope that some day I can do something to help you."

To stick labels on syrup cans, reduce varnish with alcohol to a thin paste. If it gets thick by evaporation, add alcohol and it will be as good as ever.

How contagions spread

IN the world of school and play all children are equal. Youngsters from homes less clean than yours come into intimate contact with your children.

To guard against contagion, make sure that your children are completely cleaned and purified whenever they come in from play.

Your great ally is Lifebuoy Health Soap. The safe antiseptic ingredient of Lifebuoy penetrates each dirt-laden pore. Rich, creamy lather carries it into every cranny of the skin. The healthful odour vanishes a few seconds after use, but the protection remains.

LIFEBUOY
HEALTH SOAP
More than Soap - a Health Habit

Keep your children safe with Lifebuoy. Teach them to use it often.

LEVER BROTHERS LIMITED TORONTO

Lb-4-86

Best Varieties of Roses

Unless one has plenty of ground and financial resources, it is wise to select carefully the varieties of roses to be planted in the garden. Because a rose wins a National Society medal in England, or in fact in any other country, it does not follow that it would succeed in an Ontario garden. Many of the most beautiful varieties are weak growers and sparse bloomers. Others, again, may be subject to disease and yield a crop only after much troublesome treatment for mildew and blackspot. The Ontario Rose Society has done good work in analyzing the roses grown in the province with a view to establishing a list of those that are most dependable. A canvass amongst the members in different parts of the province resulted in the securing of a list of twelve of the most popular varieties, as follows:

Frau Karl Druschi, white, belongs to the Hybrid Perpetual class. Blooms fairly constantly throughout the summer and fall months.

Gruss an Teplitz, a Hybrid Tea, bright scarlet. The flowers are borne in clusters and are highly fragrant.

Madame Edouard Herriot, shrimp pink Hybrid Tea, very attractive.

Mrs. John Laing, Hybrid Tea, pink, gives especially fine bloom in the autumn.

Richmond, a red rose, blooms well in September after heavy June crop.

Ophelia, pink Hybrid Tea. Is charming in the bud and open stage; very fragrant.

Caroline Testout, pink Hybrid Tea. This variety made the Pacific Coast City of Portland famous for its roses.

General McArthur, a red rose of the Hybrid Tea class. Has stood the test of many years.

J. B. Clark is a show rose in the red class. Very productive during the main crop season and gives a small return in the autumn.

Ulrich Brunner, a Hybrid Perpetual of great size and fine fragrance.

Killarney is a greenhouse and garden rose of a pink color.

Lady Alice Stanley, a pink rose not unlike Killarney both in color and habit of growth.

Roses of most of these varieties are often obtainable as premiums with membership in horticultural societies. Through this medium these fine varieties are found growing almost everywhere in the province.—Ontario Horticultural Association.

A Garden of Herbs

BY A. B. CUTTING.

In the garden of long ago, there was always a corner or bed devoted to the culture of herbs.

The six suggested here are well worth growing. Spearmint, which should be available to every housewife, is not included because sprigs for use or roots for planting easily can be secured from a friend or neighbor.

Dill—One of the best of the comparatively newer herbs. It grows from two to two and a half feet high. Culture same as for carrots. The seeds, gathered when ripe, are used as a flavoring for condiments and pickles, and sometimes for medicine. Although an annual, the plant will reproduce itself by volunteer seedings from seed ripened and fallen.

Lavender—An aromatic shrubby plant not used in food but one of the most worthwhile herbs for the garden. When growing, it is beautiful and its flowers, when dried, are delightful for scenting household linen. It delights in a fine, rich, rather limy soil but requires somewhat more shade than the other herbs. Needs protection in cold districts in winter. Can be increased by dividing the old roots.

Sweet Marjoram—A perennial but generally grown as an annual. The seeds are very small and should merely be pressed into the soil. The leaves and other green parts are used in summer and dried in winter for seasoning. A few plants will add to the interest of any garden.

Sage—One of the most extensively used plants for seasoning. Sometimes used as a tonic in domestic medicine. Grows from one to one and a half feet high. In very cold districts, the plants need protection in winter. Everyone is familiar with this old-timer.

Summer Savory—Even the smallest garden plots should provide room for home-grown summer savory, if no other herbs. Grows eight to twelve inches high. The seed is very small. The leaves and young shoots may be used for flavoring in summer or the leaves, small stems and the flowers dried for seasoning in winter. Some European folks put up (or down) a few sprigs of this herb with garden beans in a brine. These flavored beans are then cooked as wanted with fresh meats and potatoes.

Thyme—A shrubby plant about 10 inches high, the small aromatic leaves of which are used for flavoring. Will stand transplanting. Generally hardy but may need protection in extremely cold districts. The broad-leaved English variety is best.

Many of the herbs may be planted as edging to borders or may be grown beside the paths and walks. A bed, a border or a corner given over entirely to herbs gives greater satisfaction; they are thus more easily cared for, more easily gathered and do not interfere with the other crops. They are generally easily grown in rich, mellow, well-worked soil. Sow the seeds in spring in shallow drills about one foot apart, and when the plants are up three or four inches thin out and transplant. Cultivate until midsummer and then mulch around the plant with straw to prevent sanding of the foliage by fall rains. In the north and east it is safest to protect all the perennial kinds in winter.

Those that are grown for their leaves should be gathered in the morning of a fine day as soon as the dew is off and dried quickly. If stored before they are perfectly dry, the leaves are likely to mold. The proper stage of growth for harvesting is just before the plants reach full bloom. Herbs should be cut before being frozen, although freezing may not injure them.

Any one interested in growing herbs on a commercial scale for medicinal or other purposes should write to the Department of Agriculture, Ottawa, or his, or her, provincial department of agriculture or experiment station for advice respecting the possibilities in the district concerned and for bulletins and other sources of information on the subject.

Leg Weakness in Chicks.

By S. W. Knipe.

Leg weakness is an ailment prevalent with closely confined chicks. Probably it is more correctly termed a "symptom" rather than a disease since it apparently may occur under different methods of feeding and management and in different forms, such as rheumatism, neuritis, and rickets.

Symptoms.—As the name implies, the legs become weak. It starts with an unsteadiness and the chicks soon lose use of the legs. The appetite usually continues to be good at first. The largest and most vigorous chicks are often the worst afflicted. It occurs in chicks from one to six months of age. Rheumatism and gout usually show enlarged joints.

Causes.—Little is definitely known as to the cause of leg weakness in chicks. Lack of green food, mineral matter, fresh air, exercise and sunshine, deficiency in the vitamine content in the ration, overfeeding of highly nutritious feeds, too much heat, damp quarters, and overcrowding are causes most often assigned for leg weakness.

Prevention and Cure.—It is a generally recognized fact that chicks which have access to the ground outside after they are a week old, rarely ever become affected with leg weakness.

Whether this provides exercise, sunshine, fresh air, green feed or minerals from the soil is an unanswered question. Nevertheless, the results are certain. When the weather is cool even a few minutes outside daily will be effective in preventing or curing leg weakness.

When weather conditions are bad and the chicks must be kept indoors the following will be beneficial:

Keep sand or fine litter on the floor.

Provide fresh pieces of sod each day.

Feed grain in clean dry litter to induce exercise.

Keep the brooder house well ventilated.

Supply green feed such as sprouted oats, lettuce, green alfalfa or clover.

Mix 5 pounds of granulated bone in 100 pounds of mash or feed the bone in a hopper.

Sometimes wood or hard coal ashes placed in a corner of the brooder house apparently have a value in preventing and curing leg weakness. The chicks will eat it readily and it can do no harm.

The surest means of both prevention and cure is to get the chicks outside as much as possible after they are a few days old.

Electric Circuit Troubles.

When the ammeter shows that the electrical system is not functioning as it should, a voltmeter offers a simple and quick method of discovering whether the wiring of the generating circuit is at fault. Readings are taken at various points of the circuit; first one from the live terminal of the generator to the frame of the car; then one from the live-battery terminal to the frame of the car. Taken with the engine running, these readings should be approximately the same, the reading from the generator being possibly half a volt higher than that from the battery.

Trouble due to poor connections or a break in the wiring is indicated when the generator voltage shows much higher than that from the battery. If the readings indicate trouble here, other points in the circuit between the battery and the generator should be tested, and the break or poor connection will be found in between the places where there is considerable difference in the voltmeter's readings on the same circuit.

He is not here; for He is risen as He said. Come see the place where the Lord lay.

Information for Farmers

The following bulletins and many others, of which these are examples, are available to farmers, and will be sent free on request by the Dominion Department of Agriculture. The information they contain is both useful and practical, and may point the way to greater profits from farming operations.

If interested, clip out this advertisement, check bulletins desired, and mail, without postage, in envelope addressed to:

Publications Branch,
Department of Agriculture,
Ottawa, Canada.

New Varieties of Grain.
Recommended Varieties of Field Roots.
Seed Treatment for Grain Smut.
Influence of Feeds on Type of Hogs.
Care of Ewe and Lamb.
Egg Grading.
Cultivation of the Apple.
Garden Insect Control.
Strawberry Cultivation.
Bush Fruits.
Rearing Chickens.
Bees and How to Keep Them.
Fertilizers for Field Crops.
Orchard Renovation.
Milking Machine.
Handbook on the Bacon Hog and Hog Grading.
List of 400 Publications.

Name.....

Post Office.....

R. R. No.....

Province.....

E-11

TREES, SHRUBS, ROSES, PERENNIALS

Write us for advice and 1924 Catalogue.

JOHN CONNON CO., Limited
Nurserymen and Florists
HAMILTON - ONTARIO

Bees on Farm

Nothing pays better when properly managed. Send for our catalogue of beekeepers' supplies. Expert advice freely given.

Ruddy Manufacturing Co., Ltd.
Brantford - - Ont.