

RURAL AND SUBURBAN

A PLEA FOR THE CROW

By J. R. Anderson

I see there is renewed agitation for a bounty for the destruction of the much-maligned and, I fear in many instances, justly so, that derelict of birds, the old black crow. There is a saying that a certain person is not as black as he is painted, and in my opinion that may be said of the subject of this letter. Now, whilst it is undeniable that the crow causes serious loss to some fruit growers, especially in the vicinity of the sea, and occasionally to grain growers and poultry raisers, it is but just that a fair balance be struck between his sins and good deeds, before unconditionally condemning him. With that object in view, before making a recommendation that a bounty be placed on his head, as was asked by some fruit growers and farmers, I caused, whilst acting as deputy minister of agriculture, enquiries to be made not only amongst our own people, but amongst those of the adjoining states, for opinions as to the destructiveness or otherwise of the crow. The result was such that no course was left but to recommend that no action be taken. When it is considered that for eight or nine months of the year no possible injury can result to fruits, grain and chickens from the depredations of the crow, that he exists during that period by feeding, the inevitable conclusion to be arrived at is that food, other than fruit, grain, etc., must of necessity be obtained for his sustenance. Is it to be supposed that a crow will frequent pastures, fields and gardens during the period mentioned for the pleasure of viewing the beauties of nature? Just watch him for a few minutes and see how many times he digs his beak into the sod. Or when following the plow, is it supposable that he is merely taking an airing? It would be a hard matter to say how many noxious insects have been destroyed, the depredations of which would have caused infinitely greater loss to the husbandman than the toll the crow has exacted. The trouble is that the loss is not borne evenly by all classes, as the crow does not discriminate, but in the aggregate his good deeds over-balance his misdeeds. This fact has been amply demonstrated by the United States Department of Agriculture; and the inquiries alluded to certainly pointed to the same conclusion.

It is always dangerous to disturb the balance of nature; the result is almost invariably disaster. The last number of the Ottawa Naturalist has the following from the pen of Norman Criddle, of Manitoba, a gentleman well known for his keen researches, May 30, 1906: "Crows have by no means a good reputation, especially in corn belts, or among sportsmen, who accuse them of much damage to winged game through eating eggs and young; but the injury is much exaggerated. We are apt to overlook the good deeds, as the picking up of small objects, such as noxious insects; whereas to see a crow fly off with a young bird is much more likely to attract attention, especially if the parents are attempting some sort of defence."

"On a newly-plowed field that had not been under cultivation for two years, white grubs (*Lachnosterna*-sp.) were very plentiful, but every one exposed by the plow was eagerly picked up by crows, a large number of which were breeding close at hand. A rough estimate places the number of larvae eaten at fully 2,000 to the acre, but the full number consumed probably far exceeds that amount."

Lachnosterna, it may be explained, is the May bug, or June bug of the East, our insect being the Western Ten-lined June bug, the larvae of which is a large white grub, a bad pest on many plants, especially strawberries. It attacks the roots of the plants, very soon killing them by stripping off the bark from the woody plants and biting off the root below the crown of strawberries. At Mount Tolmie some years ago many plants were destroyed by this insect, and at Peachland whole beds of strawberries were shown to me to be destroyed by the same insect.

Victoria, B. C., February 26, 1910.

GOOSEBERRIES AND CURRANTS

By James Simpson

The gooseberry (*Ribes Grossularia*) of botanists is a very useful fruit, a native of Britain and of several other parts of Europe, but attains its greatest perfection in a comparatively cool climate such as that of Scotland and the North of England, where the summer temperature ranges, say, in July, about 56 to 57 deg., and in August about the same.

Near London, England, the mean of July is about 63 deg., and of August about 62 deg., and it is surprising what a difference these few extra degrees make to the flavor. The writer has in several years bought ripe gooseberries in a great many English towns from the English Channel right north to the Scotch border and found that the flavor improved the further north he got.

Here in Victoria he has studied this gooseberry question very thoroughly, and as the young fruit soon acquires a size fit for pies, tarts and puddings, he is quite surprised at the miserable showing the fruit makes in Victoria, either in the ripe or green condition; though the price is so high that it would pay anyone to put themselves to a bit of trouble to grow them well, and there is a fine field for a start, as the writer can honestly say that in and around Victoria gooseberries are the most miserable looking objects of plants he ever beheld in any country. As yet he has only seen one decent lot, and that was in the James Bay district; there the fruit was good and the plants were healthy. The pruning and trimming in the past had not been as good as it should have been, in so far as the plants were simply stools and not stems, as they should be, and they had not been trained and pruned on

the extension system, which is by far the best way for this and most other fruits.

Still the fact that they are there and in good order as far as health is concerned proves that in Victoria good plants can be grown of this very profitable and very pleasant bush fruit. It requires a deep, rich, damp and well-manured soil to grow it to perfection, and it will stand a slight shade, being frequently planted in Britain beneath and between plum trees. Still the writer prefers it as a crop by itself, and grows the plants healthy so as to produce a fairly good and strong foliage of its own, which will give it all the shade required. It should always be on clean, disbudbed stems, and the stems at least four to six inches above the surface.

Ribes Rubrum (the red currant) belongs to the same natural order as the gooseberry, and it may be considered to require much the same treatment. The writer has seen in Jersey, one of the large islands in the English Channel, a variety called *Comet*, which did remarkably well, and should also do very well in Victoria, though any good, strong-growing sort should do well. This plant is greatly benefited by the application of a little potash, which is not a stimulant but a plant food, and if Victorians who burn so much wood would simply put the ashes with the charcoal they contain on their currant and gooseberry bushes, it would do them a world of good. I have seen wornout plantations in Scotland completely renovated by nothing else. There is nothing finer in the way of jellies than that made from red currants, the fruit being also useful for pies and tarts, and the plant is certainly worth more care and attention than it has yet received on Vancouver Island.

Ribes Nigrum (the black currant) also belongs to the natural order Grossulariaceae, and like the gooseberry and red currant, is indigenous to Britain, where it is a very highly esteemed fruit, and sells usually at a much higher price than either of the above mentioned fruits, it being considered very much medicinal and making a very fine jam and also a jelly and for making wine. The skin contains an essential oil, which is probably the cause of the medicinal properties it contains. This currant requires different treatment from the red and the gooseberry, in so far as it should be grown on stools—that is to say, that the cuttings when put in should not be disbudbed, and they should never be grown on stems. The wisdom of this will be apparent when you come to consider that, like the peach and the Morello cherry, the black currant fruits on the young wood of the previous year, and never does so well if it is grown on the spur system. It was a common enough sight to see in Scotland plants of black currant 40 years old, five to six feet high, and eight to ten feet in diameter, in perfect health and producing berries two inches in circumference. The writer has measured the top berry of a bunch often and found it 2½ inches in circumference. Judging from what is at present seen here of this plant, it will take some time before we come to such a state of perfection. But no doubt time and perseverance will work wonders on this and other fruits yet in this favored clime, where there is plenty of sun to grow all hardy fruits to perfection, and where time and the three D's—dung, digging and draining—are the essentials from man for a great success.

I do not propose to treat on insect or fungoid enemies to these plants at present, believing that with thorough skill and good cultivation these enemies will trouble but little; indeed, I have found since coming to this country that many cures for diseases of plants are much worse to the plant than the disease, and should be used with very great care, or not at all.

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FIGHTING THE SCALE.

Injuries by scale insects are practically confined to three species: The oyster scale, the scurfy scale, and the San Jose scale. The last-named, the smallest and most recently discovered, is by far the most destructive of the three.

The oyster scale has an oyster-shaped, brownish scale about one-eighth of an inch long. The scurfy scale is fully as large, whitish or dirty white, individual scales being rather broad and with a yellowish speck at one extremity. It frequently forms a scurfy-like covering when abundant on a tree. These two species winter as eggs under the mother scales; the minute crawling young appearing from about the first to the latter part of May, depending upon the latitude, when they wander for a short time and then establish themselves upon the bark.

Winter treatment is not very effective, and it is therefore best to control these two species by spraying at the time the young are most active, with a kerosene emulsion (the standard formula) diluted with six or seven parts of water, or a whale-oil soap solution—one pound of soap to six or seven gallons of water.

The relatively inconspicuous San Jose scale is much smaller, only about one-sixteenth of an inch in diameter, nearly circular, and grayish or yellowish gray in color. The half-grown scales, frequently very abundant on infested wood, are only about half as large, nearly circular, with a distinct nipple surrounded by a crater-like depression, and ranging in color from a medium gray to dark gray or even black. Very young scales are whitish, while the minute crawling young appear like yellow specks.

A characteristic of this insect is the purplish red discoloration of green tissues in the immediate vicinity of the scale. This may be seen in the tissues of the inner bark, on the surface of green twigs, leaves or fruit. One of the easiest methods of detecting the presence

of this scale is to examine the fruit of apples, pears, plums or the leaves of peach trees for the scale and its reddish discoloration. This insect breeds almost continuously from the middle or the latter part of June till frost, which fact explains in large measure its great destructiveness.

The most effective method of control is by treating the dormant trees in winter with something active enough to destroy the pest. This means exceedingly thorough work with spray apparatus of any kind. The materials most extensively used in the Eastern states are lime-sulphur washes or some form of oil. The lime-sulphur wash, despite the labor necessary to prepare it and its somewhat caustic nature, is very effective in controlling the scale, and also of much value in checking certain other insects and fungoid diseases. It is the best wash to use under most conditions. It may be prepared by putting a few pails of water in a large iron kettle (twenty gallons), or cooking outfit of galvanized iron, bringing the same nearly to a boil, then adding twenty pounds of lime, followed at once with fifteen pounds of flowers of sulphur or fine sulphur flour; stir vigorously and keep the combination boiling actively for at least thirty minutes or till a deep brick-red color is obtained. Then strain through a rather fine wire netting (mosquito netting will do) or coarse bagging, dilute with cold water to forty gallons, and spray at once.

Another wash, practically as effective, if well prepared, may be made by putting five or six pails of hot water in a barrel (a good flour-barrel will answer), then add the above-named quantities of lime and sulphur and ten pounds of sal soda, stir vigorously till the lime is slaked; it may be necessary to add a little cold water to prevent boiling over. After the violent boiling has largely ceased, cover with burlap and allow the mixture to stand at least thirty minutes, stirring occasionally, then dilute and spray as described above.

One serious disadvantage about lime-sulphur washes for suburban work is the danger of spotting paint on fences and buildings, since the sulphur in the wash blackens lead paints. There are a number of commercial oil preparations on the market. They are exceedingly convenient, since it is only necessary to dilute with cold water before spraying. The most serious objection to the employment of the "soluble oils" is the danger of injury to trees, since certain of these preparations at least must be employed with much care, and it has yet to be demonstrated that they can be used for a series of years without detriment to the trees. On the other hand, the oils spread more rapidly than the lime-sulphur wash, and it is consequently easier to do a thorough job with a minimum amount of material.

The rule for treatment with oily combinations is to thoroughly wet—not drench—every portion of the trees; whereas, it is by all means advisable to thoroughly drench the trees with the lime-sulphur wash. All familiar with the destructive nature of the scale agree in recommending some treatment, even though the application may result in a certain amount of injury. A good pump for spraying can hardly be obtained for less than ten or fifteen dollars, and the owner of a few trees may find it advantageous to employ some one possessing a good spraying outfit, and in this way secure thorough treatment at a minimum cost.—E. P. Felt, State Entomologist of New York, in *Suburban Life*.

THE CULTURE OF THE MELON FOR PROFIT

Four principal things have to be considered in order to assure success in the culture of the melon—the kind of soil, the best method, the best cut and the best care. A sandy loam soil is most favorable. Every means should be taken to render the ground suitable, whether by special manures or by peculiar improvements in order that the ground may contain all the best fertilizing principles.

Method of Culture.

The best method of culture is that which makes the plant profit from the solar influence, which facilitates the free circulation of the air, and which makes the fruit absorb solar rays. This method exposes them to the influence of light. The culture of the melon, upon knolls appeals to all these conditions in preference to any other method. I recommend, therefore, hotbeds and windows (sashes) in preference to the flat ground. This kind of culture assures a greater quantity of fruit and gives more strength to the plants. The ascending direction of the sap and the descending direction of the branches, are the two great factors in this method.

By this method one can get at least ten melons a mound and even more. This is the smallest number I raise from my mounds; generally I have more. If you cultivate only one plant on a mound your melons will be bigger but, if the fruit is to be sold, it is far better to leave two plants a mound, which will give twenty melons. On an acre, at a distance of six feet from each other, you have 900 mounds. At twenty melons each mound this will yield 18,000 melons which, at ten cents each, will give a revenue of \$1,800.

In spring, as soon as the ground is in order and the weather favorable, I place my hotbeds six feet apart on the ground, which was well prepared in the fall. I then dig only the ground where the hotbed should be placed. I fill the hotbed with the best mould containing twenty per cent of pigeon's dung thoroughly mixed with the mould, leaving two or three inches between the hotbed and the ground. The front part of the hotbed should be nine inches high while the back twelve inches. The width of the base of the hotbed should be twenty-six inches, and of the top nineteen inches. The depth at the base should be twenty-six inches

and at the top twenty inches. Each pane of glass should measure fifteen by sixteen inches. The size of the hotbed can vary in size as one wishes, and consequently that of the frames. My frames are made of one inch spruce boards.

Sowing the Seeds.

Now, having made the surface of the mould even in the hotbed, I sow from ten to fifteen melon seeds with proper spacing. When the plant has sufficiently grown, I sort the plants, keeping the best ones. Then, gradually, I clear the ground so as to leave one or two a mound.

Ventilation.

As soon as the seeds begin to grow I move the window somewhat to allow the air to circulate through the corners of the box. I move the window thus between seven and eight o'clock in the morning. According as the sun gives more heat and as the plant grows, I move the window more and more.

At night I push the window back into its place about an hour before sunset so as to keep the heat inside the box. I then cover the hotbed with a heavy covering. The hotbed should be surrounded by dirt at least six inches thick and two-thirds of the height of the hotbed frame. The covering made with empty salt-bags should be thick enough so as to preserve mounds from low temperature, and should be put on the frame every evening, as soon as the melon seeds are sown, and then taken off after sunrise.

Watering.

We should never water nor warm melon plants at night, when the nights are cold, but in the morning, on the contrary, when nights are warm, we should water them an hour at least before sunrise, then close the frame and cover it. Rain water, heated by the sun is preferable to all water, because it contains more fertilizing principles. For want of rain water, we can use other waters—but waters which have been heated by the sun.

I water the melon plants with purin (French word)—a liquid manure—and common water; then, I warm with one-quarter of purin mixed with three-fourths of water. My melons are very aromatic and juicy. During the period of the culture of the melon, the watering should be made so that it may reach the interior of the mound three or four times, according to the dryness of the mound and to the temperature of the weather. The warming should be done every night or every morning, according to moisture of the night, because leaves are the soul of the plant or in other words, the pulmonary surface.

Cutting and Pinching.

When the melon plant has four leaves and the fourth one is big like the nail of a thumb, I cut the stem under the third; and I put dust-land on the wound; yet one is not obliged to do that. We should never cut cotyledons (the seed-leaves). The operation causes great harm to the plant. I never touch branches that come out from the armpit of cotyledons, because from these, appear the first female flowers I pinch them without trenching them.

When the fourth leaf appears on new branches I again cut the stem under the third leaf. This is the second cut.

New branches appear, and when they have four leaves, that is to say, when the fourth one appears, this time I cut above the third. This is the third cut. By this cut male and female flowers appear.

I make a fourth cut, also a fifth one. If the female flowers do not appear at the fifth leaf, I then pinch the branches just after the fifth leaf. It is necessary to see and to know how and when, we should pinch. When the female flowers appear we should not pinch branches immediately, because you would destroy the coming fruit in bringing the plethora of the sap to the branch before the vessels of the peduncle (stalk) of the female flower have taken enough development to receive it with profit. Likewise too great dryness at the interior of the mound brings a considerable diminution of the sap; consequently, the death of the plant and of the female flower. Therefore we have to wait three or four days before the female flower opens in order to pinch the extremity of the branch. Then you fold slowly the extremity of the branch while having it form an acute angle on the right of the insertion of the peduncle in such a manner that the latter may appear to form the lengthening of the branch and we fix it thus by means of two small branches. This is the best way to have the fruit knotted. If on the mound there are no male flowers but only female flowers, and though draughts, bees, etc., would favor the transportation of the pollen; yet it is prudent to gather flowers from the nearest mound—also to shake the stamens on the pistil of the female flower, in order to assure fertility.

When the fruit is knotted, that is to say when it has acquired the size of an egg, we cut the branch about two or three inches above the melon. If other branches come forth in the armpit it is better to take them off. If there are branches not bearing fruit we should take out some of their wood with great precaution.

We should not forget that, if we wish to get excellent melons, the solar rays have to reach them entirely and continually. This is the reason why we should prevent confusion from forming bushes and regretful confusion that cause a great harm to the circulation of the air. This is why we should not leave more than one or two plants a mound.

Making the Mound.

I come back to the making of the mound: when the leaves touch the glass I raise the box a little; then when branches reach the edge of the window I remove the hotbed. Therefore, I complete my mound. I dig the ground

around the hotbed, stir the land, and with a rake again hill up the land a little towards the melon plants. I again put some mould on the top of the mound and on the melon plant as far as the seed leaves.

I make a circular mound which depression in the centre where the plant is in such a manner so as to form a basin, in order to contain the quantity of water needed. Afterwards I put a thickness of one inch or one and one-half inches of a black substance (like dung) all around the mound, in a manner so as to mask all the surface of the mound. This is done to have all the heat possible penetrate the depths of the mound. In fact, of all colors, black absorbs most heat, and the more a mound will absorb the solar heat, the more melon plants will develop; the fruits then will be juicy and delicious. Therefore, the whole plant absorbs an excessive heat which is an advantage over flat layers.

My mounds finished, I put four shingles (about middle size) in each, leaving them a little larger than the branches of the melon, then I put on my hotbed with the frame entirely closed. I open it only to water or to warm the plants. I take off the hotbeds in June only when the heat of the temperature is strong. When the fruits are half grown, I gradually take them away from the leaves, or rather, if the weather is cloudy, I place them on a large shingle which I sharpen at one end and which I put in the mound; at the other extremity I put a support.

The height of my mounds is eighteen or twenty inches, having a circumference at the base of 100 inches at least, and at the top, a circumference of seventy or seventy-five inches.

Varieties and Seed Selection.

I have cultivated a great variety of melons with seed coming from Los Angeles, California, but the best ones that I have found are those of Montreal and of Cantaloupe. Select those varieties that are known to give the best results.

We should always select the seed. The best seed is that which is taken from the middle part of the slice of the melon. This is the first one formed, and it reaches always its full development. A melon seed, well cultivated, requires four months to cover the period of vegetation.—J. Od. Beaudry, in *Canadian Horticulturist*.

TRAINING GRAPEVINES

By many of the best authorities on grape culture the training of grape vines upon what is known as the Kniffen system is strongly advocated, more especially for the very vigorous varieties.

Under this system the plants are set eight, nine, or ten feet apart each way, as in common practice. The first year the young vines are allowed to lie upon the ground, but the second year steps must be taken towards forming the permanent top. When the vine is pruned in early spring only about two vigorous buds are allowed to remain, and if one strong shoot is obtained, that is all that is necessary. These shoots are trained to long upright stakes, so that the matured canes may be in the position of the permanent stems; a trellis is not necessary the second year, although it sometimes occurs that the vines may grow so vigorously that the top may be formed the second summer instead of the third.

At the beginning of the third year the vines are pruned, so that the one upright cane extends to the top wire of the trellis, and possibly one or two laterals may be present, but these are of minor importance. The principal object should be to get a strong, well matured upright cane. Usually the vine has but one stem. Some growers, however, prefer to have two, as it is said that the growth upon the top wire will take place at the expense of that on the lower.

The trellis should be in position before the third season's growth. Only two wires are used in the true Kniffen system. The lower one placed from three to four feet above the ground, and the second from two and a half to three feet above the first. Some fruit may be borne the third year, but too much should not be allowed to remain. When the vine is pruned at the beginning of the fourth season, all laterals except four should be near the top wire and two near the lower. After the fourth season the vine retains essentially the same form.—The Farming World.

HARD-MOUTHED HORSES

Here is something of real practical value to anyone driving a horse that pulls on the bit. Fasten a small ring to each side of the bridle and as near the brow-band as possible. Pass lines through bit-rings and snap them into the rings at the brow-band. This, with a common jointed bit, will enable a child to hold a "puller" or hard-mouthed horse with ease under almost all circumstances. It can be used on a fast horse in double team or on both, as desired. It is cheap and easily applied and it won't make the mouth sore. It is better than any patent bit.

NEW POULTRY JOURNAL.

"Successful Poultryman" is the name of a new monthly journal devoted to the poultry interests of British Columbia. The first copies show a neat, newsy publication, brimful of useful information for poultry fanciers. The journal is published in Victoria.

Home industry is threatened by the arrival in Montreal of a shipment of 6,000 dozen eggs from Russia; but if the Canadian hen refuses to supply our tables, what can we do but import?

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