

in the middle-
ing queen 24
ly conceded
after spring
needed till
near not just
r. Leave on
as set in.

spring, what

uncapped and
practice to fill
ting position
while warm

By pouring
When one
he other side
he found it
cushion on
syrup in by
b the sealed
the center of
the feeder
a midwinter
mended to
dealer on its
Unless the
they will not

HARD.

look.

ONT.

reckless man-
the Province
ring of fruit
doubt arises
er take into
ace inside of
the fruit in-
of the fruit-
ion. In the
the Province
Ontario, be-
section that
f fruit of all
n of being
in the ex-
in the newer
arge areas of
climatic in-
d maturity
its which we
ss, such as
of plums,
ounty very
d they were
central part
ment at the
ction of our
particularly
hardy fruit,
he northern
an end of the
owing world
they have
home and
see that we
be surpassed
merican con-
y millions of
best quality.
rs? Already
our old and
a profitable
hen we take
of the last
remember
would have
ees through-
all the fruit
harvested.
port of the
that in the
ity sold as
t, there was
ular kind of
all through
ndor. We
f bushels of
amount of
f barrels of
er harvested
a Peninsula
tario, what
her sections
ndition of
y years,
part of the
ation have
the bearing
the acreage
increasing,
s enormous,
ing less.
uit from all
in to bear?
aintenance,
orked up a
all the fruit
and that in
ns will be

reached, and a proper distribution of the crop will be effected. That sounds very acceptable, but let us go slowly, as the argument will bear consideration, and I believe that before long many will wish they had given it more consideration before accepting it. An English market! What a grand thing it would be if Ontario could get the job of supplying John Bull with his luxuries in the way of fruits. But what is the result of the efforts put forth along that line? We have found that our grapes will not stand the journey and arrive in a presentable condition. More than that, we have also found that could they be put on the market in good shape they would not meet with ready sale on account of the flavor not being agreeable to the very refined taste of the English people. We have ascertained that our plums and peaches are not of a nature to carry such a long distance, and that our only hope is to secure a sale for our very choicest apples and pears in that distant land. The "small town" and proper distribution in our own Dominion" phase of the question is also very questionable. We must remember that the nursemens are getting the rural districts about these towns planted out just as rapidly as their agents can dispose of the stock, and that in a very short time they will be supplied by growers from near at hand. In the past the Ontario grower has been able to dispose of much of his produce in the Provinces of Nova Scotia, Quebec, and Prince Edward Island, and in the United States. Now, however, those Provinces are becoming rapidly filled up with bearing stock, and the tariff wall keeps us out of the American markets. So again the question presents itself, What is to become of all this fruit?

Of course it is only natural to come to but one conclusion, and that is: All progressive fruit-growers have awakened to the fact that the supply is rapidly overlapping the demand, and that some precautions must be exercised to prevent an overabundance to cause an utter failure of that branch of horticulture, and the financial ruin of many engaged therein. But a few years ago, the greater portion of the time devoted to a meeting of any fruit-growers' association was taken up by those attending in discussing the different kinds of fruits, the particular merits of each variety, the nature of soil and location suitable for same and the proper cultivation to bring them to maturity. That time is past, for, as a result of the experiments that followed those discussions, many of us now, by practical experience, know the best and more profitable varieties, their proper location and soil and the best method of cultivation. To-day the principal theme at such gatherings is how to create a demand for and secure profitable returns for that which we have brought to a harvesting stage.

We have now come to a period in the history of fruit culture when, if one engaged in that pursuit expects to receive proper remuneration for his labor and capital expended, he must not only expect to so manage his plantations that they will produce abundantly, but must also follow certain scientific principles that will tend to induce a production of high quality, and high quality only. The depression in the markets at the present time is probably not so much the result of so much fruit as it is the consequence of too much poor fruit. Seeing that these are facts which must be faced, what must the progressive grower do to try in a measure to counteract the enormous supply that must in time be a natural course of events? There is but one course to pursue, and that is to himself follow methods that are productive of high quality, and induce others to do the same. Many growers know perfectly well how to go about to accomplish the required results, but thinking they may make less their chance of personal gain, they keep their knowledge to themselves. Such a course of procedure is not worthy the least degree of commendation, for while a few are producing an article of extra good quality, there are thousands distributed throughout the country who are trying to carry on a work about which they know very little and sometimes are entirely ignorant, and the result is failure and an overproduction of produce that is unfit to be harvested, competing in the markets with that of a higher grade. There is one thing we must remember—the inferior fruit always stands in the way and hinders the ready sale of that of a superior quality. It ripens at the same time, it is harvested at the same time, or, probably what is still worse, a few days earlier and before it has properly ripened, and has a depressing influence on the markets; the producer sends it to the same markets, and it is a commodity that has to soon pass through the different stages from producer to consumer, it is sacrificed at a mere trifle, and the result is that although your product is of superior quality, it is in competition with an inferior grade, and as a result the price obtained is greatly affected. In the past much of this inferior fruit has been sent to England, and instead of aiding in opening a market for us there, it has gone far to create a feeling against our products. If, then, we cannot see that there is danger of producing too much fruit, it is very patent to all that there is already too much poor fruit.

"There is that scattereth, and yet increaseth; and there is that withholdeth more than is meet, but it tendeth to poverty." It is, then, the duty of every grower to do all in his power to induce and promote education along horticultural lines, and try, by so doing, to raise the quality of the products of the Province to a higher plane.

We know the value of scientific spraying and the results derived therefrom. Thousands throughout the country have not yet learned of the

method, or, if they are possessed of a knowledge of its existence, they do not understand the proper application of the same. When practical demonstrations of it are proposed by our Government

many of us are inclined to have a severe attack of political colic, and condemn the administration for following such lines of procedure, claiming that little if any benefit is derived therefrom, and that it is but a scheme to fatten a few political friends. There is where we make a very serious mistake, and with little consideration we can see wherein our argument is unsound. Those who have carried on these practical demonstrations can testify as to the ignorance of many growers in certain districts concerning this particular work, and of the lack of knowledge of bringing a crop to proper maturity. And these growers are the ones that are producing the small-sized, scab-covered, insect-infested, wormy, flavorless specimens that are to be presented on the same market in competition with our fruits of a high quality. Who would say in the face of such argument that any administration that is urging upon all growers the necessity of performing such operations is not doing much towards the benefit of one of the greatest industries of the Province?

The experimental stations are also an important factor in the education of the fruit-growing public. Too often in the past have unscrupulous nurserymen imposed upon the purchaser some worthless variety, introduced probably from some foreign country. The glowing description is far from being realized when the trees reach a fruiting age, but of course the fruit is pushed on the market. Hundreds of such varieties have been palmed off on the public, and to what effect the progressive grower knows only too well. The Government experimental stations are dampers to this kind of deception. Varieties are tested, and the results closely watched and reported, and unless they are worthy of propagation they are condemned. Many contend that this work has been in progress for years and at great expense. True, but the results of these investigations have yet to be made known to hundreds of growers. Such institutions should be tolerated instead of condemned, and all ardent growers should endeavor to aid the proper distribution of all literature printed setting forth the results of such investigations.

Closely allied with this institution are the fruit-growers' associations, the farmers' institutes and the horticultural societies. The annual fairs and exhibitions are also great educators, showing the advancement that is being made in the industry. All these should be patronized and promoted, for "He that questioneth much shall learn much," and it will be only when the growers of fruit become educated along the line of principles productive of quality that that branch of horticulture will prove the profitable calling it has been and should be in the future.

Producing Tomato Plants.

While it may be somewhat more convenient to purchase tomato plants ready to set out when the season arrives, the advantage of having vigorous plants of the best varieties will warrant the growing of one's own plants when it can be done with very little expense or trouble. Except one has saved seed from a former year's fruit, it will be necessary to procure it from a seed house. Among the best varieties now grown are Canada Victor, Livingston's Favorite, and Livingston's Beauty. They are all fairly early, firm, productive, and of good quality. It is well to grow several sorts, that the seed for future years may be selected from the sorts best liked. It may be pointed out just here that in selecting tomatoes for seed, the earliest, largest and best shaped specimens should be set apart and allowed to be well ripened on the vines.

Since few farmers have hothouses, the hotbed will have to be depended upon in which to grow the young plants. A bank of heating horse manure surrounded by boards and covered with six inches of earth, with a window sash above, makes a good hot-house. Make the manure heap three feet deep when fresh, and one foot wider each way than the sash and box that holds the earth.

The bed should be got into a heat of seventy or eighty degrees before sowing the seed. As the fermentation begins to cease, the heat can be kept up by banking the outside well with hot manure. The plants will need airing, but care must be taken to avoid chilling them, and when the sun comes out very warm the plants should be shaded. White-washing the glass may be done to advantage at this time.

The seed should be sown in drills about one foot apart, half an inch deep, and quite thin in the row. Press the earth down level and quite firmly. When the plants are up and showing the first rough leaf, they should be thinned to two inches apart. As they grow they should be gently shifted by hand from the rows to the spaces between, until the plants stand equal distance apart in the bed. Mr. S. H. Mitchell, St. Mary's, Ont., says, in a practical treatise on tomato-growing, that while this much space given to the plants may appear unnecessary, except one wishes to transplant the plants while they are quite young, the extra space is of great advantage. He also claims that from experience he has learned that every time a tomato plant is transplanted, it loses, to some extent, its productiveness. Grow the plants as large and strong as possible until the leaves touch each other. They should then be shifted by means of a trowel, being careful to break the roots as little as possible. Set the plants in rows a foot apart and seven or eight

inches apart in the row in cold frames, if necessary. As soon as the leaves touch again they are ready to be set out. The plants should be protected at all stages of growth from cold, as a touch of frost, or even a severe chill, will seriously weaken their vitality and productiveness.

POULTRY.

Early Pullets for Next Winter's Layers.

No doubt there are at the present time many would-be poultrymen and women somewhat disgusted with their failure to get the hens to lay liberally during the past two months. Care was taken to have the house made comfortable and light, the birds and premises were treated for lice, and the flock was carefully and regularly attended to. It is not well, however, to give up in despair, for many others are succeeding, but it must be remembered it has taken them some time to learn the tricks of the trade. An all-important factor is to have young, vigorous hens to depend upon for winter eggs, and the best results are usually obtained from early, well-matured pullets. March is the month to prepare for them by mating the select hens of the flock with a first-class male. April is the month to have the chickens hatch, but to do this provision must be made for their comfort, so that they will grow rapidly from the start. The selection of the breeding-pen should be carefully done. The cock as well as the hens should be robust and from winter-laying stock. The hens should be long-bodied, deep-keeled fowls, carrying the tail well up, and are broad behind. Two-year-old hens that were good winter layers as pullets are best to depend upon for dams. Hens are like cows. Some produce only during a few months of the year when the conditions are most favorable, while others yield well most of the time. The difference is largely one of hereditary tendency.

The breeding-pen may consist of 15 families to one male. The male should not be fat, but vigorous. He should have plenty of exercise, be sparingly fed on such foods as lean meat, linseed meal and the like. This will reduce the fat, if he be too heavy, and increase his strength. It is also desirable to allow the hens plenty of range and keep them active. It is recommended in the *Reliable Poultry Journal* by Mr. L. E. Keyser to add a little sulphur and charcoal to the morning mash in order to get a large percentage of fertile eggs. It is also recommended to take the male from the pen for a portion of the day and change cocks from one pen to another every other day.

If the pens are mated by the 10th of March there will be plenty of fertile eggs by the 25th of the month, which will be about early enough for most farmers, especially those who depend upon hens to do the hatching. Where one can manage it, the pullets, for the purpose under discussion, should all be hatched before the first of May, but if this cannot be done the pullets hatched during the first half of May will be all right if bred right and hustled to maturity.

In setting hens have as many ready at the same time as possible, and if the weather is cold not more than 10 or 11 eggs should be placed under each hen. When the eggs have been set one week the infertile ones can be detected on examination, and should be removed, and the live eggs placed under fewer hens, giving the others a new lot of eggs. A hen does not mind sitting four weeks, neither does she object to raising a large, full family. As more hens become broody set them, and as the broods hatch, double them up or use a brooder for the chicks, and set the same hens again. If they are well-fed and prevented from becoming lousy they will hatch two or three batches in succession without being any the worse for so doing.

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Veterinary.

PROBABLY NASAL GLEET.

SUBSCRIBER, Pipestone:—"Have a mare five years old; has been running at right nostril for two years. The discharge is thick, yellowish-looking matter, offensive smell, or fetid breath. Discharges very little when standing in the stable, but when driving or working there is a constant discharge. There is also a slight discharge from the right eye. I took her into Virden to a young veterinary fresh from college a year ago last summer; he examined her teeth, but said that she had chronic catarrh. I took her in again last July to a veterinary surgeon who prints on his cards "A Specialty of Dentistry." He said he thought that she had an ulcerated tooth, and that when the mare was working the increased respiration forced out the pus or matter; but he told me to take her back to him again, which I have not done. Now, I was looking over the files of the *FARMER'S ADVOCATE*. I have been a subscriber for six years, and in the issue for November 20th, 1893, there is a long article by Dr. Mole, M. R. C. V. S., Toronto, on page 444, in which he says: "Even if strangles does not appear we may have pus or matter forming in the sinuses, particularly in the upper jaw, ending in softening and degeneration of the bone." I am of the opinion that that