

Raising Ducks for Market.

Dealing with feeds and feeding of young ducks, A. G. Gilbert, in his evidence to the Standing Committee on Agriculture, in 1908, advised for the first three or four days after hatching, mash of corn meal, a little hard-boiled egg chopped fine, ground wheat or oats, or granulated oatmeal, the whole being mixed with boiling milk. The young birds are very fond of cabbage, lettuce or clover, which should be chopped fine, and may be mixed in mash. Make mash crumbly. Skim milk for drink. Later on a mash may be made of corn meal, bran and oatmeal, with chopped green stuff, and mixed with skim milk boiled. Feed the young ducks five times per day. Keep them in dry quarters, out of the hot sun, and supply water in limited quantity in shallow dishes, so as to prevent them ducking into it. After three or four weeks, reduce the rations to four per diem. As the ducklings grow, the rations may be added to by house-waste, ground bone, beef scraps, or cooked meat. Small pieces of charcoal are aids to digestion.

To fatten, feed on ground grain, meal, beef scraps, etc., made into a mash. Barley meal is excellent in the soft food. Nothing should be fed that will give the flesh a bad flavor. In nine weeks the ducklings should weigh four and a half pounds each, and are ready for market. They should be marketed before the pinfeathers begin to grow, which is likely to occur after ninth week.

A skilled poultry-keeper, of many years' experience, says that the poultry-house question, as far as British Columbia is concerned, is simply one of sheds to protect the fowls from the rains of winter, and secure a dry roosting-place at night. This is to a great extent correct. In the colder districts of this Province, the cotton-front house would doubtless prove suitable. But genial winter conditions prevail in this Province. I may, however, remark that egg and poultry values are as high, at times higher, than in our eastern part of the Dominion.—[A. G. Gilbert, C. E. F., Ottawa.]

GARDEN & ORCHARD

Willing to be Known by Their Fruits

Editor "The Farmer's Advocate":

Three years ago, about the 15th of October, I informed the purchaser of my apples that I was going to commence picking my Baldwins. He wished me to wait a while longer, as every week, he said, would add shillings per barrel to the value. I told him it was so late in the season I dare not wait longer, for fear of my apples being frozen on the trees. I started at once, and we barrelled about sixty barrels per day. It was November, before I picked any Northern Spies, and finished them about the sixth of November.

As I had not a great deal of experience in properly handling an orchard, I decided to take in the Horticultural Exhibition at Toronto. About the first lecture I attended, A. McNeill produced his wonderful map, showing practically a straight line from Hamilton to Lake St. Clair, and explained that all of the counties bordering on Lake Erie, owing to such a long season, were unfit for producing good winter apples. He said that all of our winter apples were practically fall apples, and should be picked in September, and sold at once, as they would not keep. Now, if my apples had been picked in September, they would not have kept, and the whole orchard of Kings, Baldwins and Spies might have been marked Greenings, as they were all very green at that time.

As for keeping qualities, I put Kings in my ordinary cellar in the fall of the year, and they were in good condition the following June. Last year we had Kings until harvest apples were good for cooking purposes.

You may have some idea how I felt when I went to hear a man, at the head of the Fruit Division for Canada, posing as a friend of the fruit growers. I came away with the idea that, if he was a friend of ours in this section, may the good Lord deliver us from such friends.

I maintain that no man can draw a straight line, and lay down what that particular section is adapted for. I can take him to orchards cared for similarly to mine, not five miles away, that are several days earlier.

Again, I believe that, by cultivation, fertilizing and spraying, we can lengthen our growing season for apples at least one month, which fact Mr. McNeill does not appear to realize. He was in my orchard in the fall of 1907, and then made the statement that he was surprised to see the apples so late; but still he continues his doctrine.

This fall apple hobby of his is all wrong. Should we, who are resident here, not know better what varieties are best to plant? I say it

is most unfair, and I have been surprised that the Department of Agriculture of the Dominion of Canada would allow such discriminating. We are trying to build up a trade on our apples, and it is just as J. A. Webster, of Elgin County, says, that in the Old Country, winter apples grown in counties bordering on Lake Erie are considered of poor quality because Mr. McNeill has advertised us unfairly.

I speak for Norfolk County, that we can produce winter varieties of apples that will keep in ordinary storage until May and June the following year, and be of good flavor and beautiful color. We are perfectly willing to be known by the fruit we produce. W. F. OLDS, Norfolk Co., Ont.



Norfolk County Apples in May.

Half a dozen of the basketful of Northern Spy apples sent to "The Farmer's Advocate" on May 12, by Jas. E. Johnson, Manager of the Norfolk Fruit-growers' Association. Two of the apples are wrapped in paper as shipped. As was stated in our issue of May 20, every apple was sound and clean. On May 20, only one of the six showed signs of decay, although they had lain for eight days in an office desk in a heated room.

Crop Between Orchard Trees.

Dealing with the treatment of a peach orchard for the first season, a New Jersey bulletin, No. 219, says that most any vegetable crop may be grown between the trees the first summer, without damage to the orchard, and it usually proves to be of indirect benefit. The truck crop is likely to receive attention in the form of good cultivation, and this is of much value to the trees. Where the orchard is not planted with some marketable crop, the cultivation is seldom as well done.

Such crops as tomatoes, melons, sweet corn or beans may be grown successfully in the young peach orchard, and, under average conditions, will at least pay the cost of the cultivation of the orchard for that season. Upon soils which have received good treatment in the form of fertilization and cultivation, previous to the setting of the trees, the truck crop will often pay the expense of putting out the orchard, in addition to the cost of the summer cultivation.

In the northern part of the State, it is stated, peaches are often grown upon stony soils, and under conditions which do not encourage the growing of truck crops, and the young orchard is often planted to the common dent corn, which will also pay for the expense of the summer cultivation, under average conditions. There is one precaution to be kept in mind in this practice, and that is not to plant the corn too close to the trees, as it shades them, and encourages too rapid growth.

The Royal Horticultural Society of Great Britain is in a flourishing condition and its annual meeting discloses a surplus of £7867 and a membership of nearly 11,000.

Arsenicals and Lime-sulphur Wash.

Lead arsenate is becoming more and more popular as an insecticide. There are several good reasons why it should, but it is still an unsettled point as to whether it is wise to mix it with the lime-sulphur wash. Results obtained from the mixture have not been uniform; in some cases the foliage has been badly burned, while in others no injuries have been observed.

Prof. O. S. Watkins, of the University of Illinois, has done considerable work on this subject, and, while his investigations are not completed, he is discouraging the mixing of these two materials as much as possible. Dr. W. M. Scott, of the Bureau of Plant Industry, U. S. Department of Agriculture, Washington, states that lead arsenate may be used with self-boiled lime-sulphur washes for spraying apples, but he found, in his experiments, that the fruit and foliage were badly burned when applied to the peach.

J. K. Haywood, of the Bureau of Chemistry, Washington, states: "We have made a study of the reactions which occur on mixing these two compounds, and have found that there is always more or less decomposition, some lead sulphide and calcium arsenate being formed. When heated, all of the lead is converted into the sulphide. The calcium arsenate is somewhat soluble, unless an excess of lime is present, in which case it is rendered insoluble. The lead sulphide formed, being insoluble, would remove some of the sulphur from the solution, but this amount would be relatively small, and would probably not materially lessen its efficiency. It would appear, therefore, that these materials could be used together with safety, in the presence of an excess of lime, in all cases where they can be used individually."

It will be noticed that Dr. Scott states that the lead arsenate may be mixed with the self-boiled lime-sulphur wash for spraying apple trees, in this case there would be an abundance of lime, and this conclusion would agree with the findings of Haywood, in that the excess of lime would prevent the arsenate from coming into solution. It is quite probable that if the lead arsenate were mixed with home-boiled lime-sulphur washes there would also be a sufficient excess of lime to insure the insolubility of the calcium arsenate, and thus make safe mixture for spraying purposes, especially for the apple.

Lead arsenate is used presumably in this mixture, because of the qualities which have made it so popular as an insecticide. It is evident that, when mixed with the lime-sulphur wash, it is not lead arsenate which goes on the tree, but calcium arsenate; at least, a very large proportion of the lead arsenate would be changed into calcium arsenate. This being true, it would appear as though it would be much more economical to mix white arsenic, dissolved in washing soda (sodium arsenite) with the lime-sulphur wash. This is commonly done with the Bordeaux mixture, and the lime present in the Bordeaux is sufficient to insure the insolubility of the arsenic. I do not think that this mixture would be safe on the more tender foliage, but it would probably be suitable for spraying apples. We intend to experiment with the mixture this summer, and should be glad to hear from anyone who has tried it.

In the case of mixing Paris green and the lime-sulphur wash, the Paris green appears to be entirely broken up, some of the arsenic going into solution as arsenic sulphide. A part of the copper, also, goes into solution, the remainder being rendered insoluble as sulphide. The presence of an excess of lime in this case does not entirely render the arsenic insoluble. The use of Paris green with lime-sulphur wash, therefore, would seem to be of doubtful expediency. From what has been said, it is evident that the use of the arsenicals with lime-sulphur wash is still in the experimental stages. Probably the arsenate of lead, in the presence of an excess of lime, may be safe for spraying apples. Paris green cannot be recommended, and the use of white arsenic dissolved in washing soda should not be tried, except experimentally. R. HARCOURT.

Ontario Agricultural College.

Clean Potatoes for Seed.

Clean, sound seed is most desirable for all farm crops. Sometimes it is difficult to procure potatoes that are entirely free from scab. The spores of this pest can be killed either with formaldehyde in solution, or with formaldehyde and potassium permanganate. For treating in a small way, the seed can be placed in burlap sacks and soaked for two hours in a solution made of 1 pound of formalin (40-per-cent. solution of formaldehyde) to 30 gallons of water.

For treating larger quantities, crate the potatoes and place them in a tight box or room. Place 24 ounces of potassium permanganate in a sufficiently large vessel, and on this pour four parts of formalin solution. This is enough for a room of 1,000 cubic feet capacity. Formaldehyde