

## FRUIT PACKING

Winnipeg, April 7.—Chief William McRobie of the Winnipeg fire brigade and at one time captain of the Montreal fire brigade, is lying dangerously ill in the general hospital here. He had his right foot amputated yesterday and his condition is serious.

Three hundred and thirty cases of canned apples that were shipped from the Oshawa Canning company at Oshawa to Winnipeg yesterday were seized by the city health authorities and are being held for examination and shipping fruit in Ontario for western consumption.

A cabinet council meeting will take place tomorrow at which the subject under discussion will be the government's policy of telephone construction during the present season. There are a large number of applications on hand from every part of the province, especially where the line is more than the long distance lines extended in order to connect with the towns in their vicinity. Several municipalities are considering the proposition of building their own extension lines, which would connect with the government system. The matter has not yet been decided whether the government will build and own lines or the municipalities, but at any rate the government will retain the control of all such lines.

On Swan lake Indian reserve in southern Manitoba last Sunday three Indians, unable to procure whiskey, tried to drink essence of lemon with fatal results. All three have since died.

Negotiations between the street railway company and its conductors and motormen are being continued and a meeting of the men of the men will be held after midnight tonight to receive the reply of the company to the demands presented yesterday. If these are not accepted the men will ask that a board of arbitration be appointed and if that is refused to arbitrate the men will strike. The agreement under which the men are working expires tonight.

D. B. Hanna, vice-president of the Canadian Northern, left for the east tonight. He states that his company contemplates many improvements in their system this year, including the relaying of the main line from Winnipeg to Port Arthur, with 80 pound steel.

Emma Goldman, the anarchist queen, attempted to return to the United States last night but was stopped at the Montreal boundary by American immigration officers and returned to Emerson, Man. The first station on this side of the line, where she registered at the Hotel Windsor, was an assumed name. It is said she will not again be permitted to enter the United States.

The left Winnipeg hurriedly but was closely watched by United States Inspector Carr who left on the same train for the south.

## ORCHARD MANAGEMENT

## CONDITIONS NECESSARY FOR THE GROWTH OF TREES

## WEEKLY HORTICULTURAL COLUMN IS BEGUN

As announced some days ago The Daily News has made arrangements to run a special horticultural column every Sunday morning, under the supervision of Roy C. Brock, secretary of the Kootenay Fruit Growers' association. In addition, Mr. Brock has kindly consented to reply to all queries sent in to this newspaper, the replies appearing in the Sunday News. Subscribers are urged to take full advantage of this offer and The Daily News will be glad to have suggestions whereby the horticultural column can be improved.

The article this week on orchard management, follows:

Much has been written lately in the different agricultural papers on the management of orchards. Intensive cultivation, the soil method, the mulch method and grass pastured by sheep have each been explained by their respective champions and such has proved to be only a repetition of what has been said before. The strange part of this discussion is that if you will visit each of their orchards in turn you will find they have all been successful and it will be difficult for you to decide between them.

This only goes to prove that there really is no one best method for all, different conditions require different treatment, also that different methods may be used to bring about the same results, so in discussing this question we should consider principles rather than methods. We should decide what we want to accomplish, and then taking into account all of our surroundings, and conditions, proceed in the easiest and most economical manner. In starting an orchard we aim first at growing a healthy tree, with well developed root system, a strong trunk and well balanced head, when our tree has reached the proper size and age we want it to bear regular annual crops of fruit, and at the same time keep up a reasonable growth of new wood.

What are the conditions necessary to grow a tree?

- (1) A deep well drained soil containing available plant food.
- (2) An abundant supply of moisture throughout the year.
- (3) Other things being equal, soils retain moisture in proportion to the amount of humus they contain, the more humus, the more certain will be the retention of moisture. Therefore we should take care of the humus in the soil.
- (4) In the matter of plant food, an excess of nitrogen will promote wood growth, but a deficiency of it will result in a more readily available than in a coarse or lumpy or compact soil. Cultivation helps to set free plant food in the soil. The decay of vegetable matter in the soil sets free plant food.
- (5) A mulch of any kind spread over the surface helps to conserve moisture. This may be either the most useful, formed by shallow cultivation, or some coarse material spread over the surface.
- (6) Any crop growing on the ground under the trees will use some of the moisture and some of the plant food. If we will bear in mind the above well known

facts, we can follow either method with perfect confidence. If we cultivate we must plow and cover the crop frequently to keep up the supply of humus, or in a short time the mechanical condition of our soil will be such that it will dry out in summer and freeze deep in winter, and if our trees do not die they certainly will not make a satisfactory growth. If we grow sod we must remember that the grass is taking up a part of the plant food and part of the moisture and we must either furnish a fertilizer rich in nitrogen, or a mulch, or both as the case may require, and we can readily see what is needed by watching the growth of the tree, which should be continuous and uniform each year until it has reached bearing age, when its needs will be entirely different. What are the conditions necessary for the production of fruit?

Anything that will retard the growth of the tree temporarily will cause it to form fruit buds and take on the fruit bearing habit. This by itself is not enough, a portion of the nitrogen and soil moisture will be taken up by the grass and the growth of the tree checked proportionately.

(2) A diet containing less nitrogen, and more phosphoric acid, which is needed for the production of the seeds, and more potash for the growth of the pulp surrounding the seeds and to add color to the fruit and to make the flesh firm, so that it will bear handling and keep longer.

After the tree has acquired the bearing habit it should receive annual applications of potash and phosphoric acid as the fruit of each year removes large quantities of these elements from the soil. It does not show satisfactory wood growth during any one year, it should receive a dressing of barn yard manure spread in a circle around the tree, and if the soil is poor, or the circumstances to change the method we have chosen. If we are cultivating our orchard we may find the limbs interfering with the growth of the tree, and if it is doing much, the mice may have become numerous, and force us to abandon this method, and if we are growing sod, we may find the sod is too hard, because the tree in cultivated ground is deep rooted, and the feeding roots are so far down that they will die if covered with sod, is all both. The two crops of hay were removed; the next year the sod was turned over, and the tree was constantly making roots everywhere they can find the most food and it will adapt itself to the changed conditions in one year. The writer has in mind an apple orchard in a field, which was planted some 12 years ago, that is a living proof of this assertion, a brief description of which may not be amiss at this time:

The soil is a sandy loam. Before planting the apple trees, 12 inches deep with a sub-solter that ran 12 inches below the bottom of the furrow, so that the ground was thoroughly stirred 24 inches deep. Apple and peach trees were planted in the fall of 1871 and market garden crops grown between the trees for three years at which time the peach trees were removed and the apple trees were planted. The orchard was cultivated without crops and there ended the life of the peach trees. The apples needed the whole space and the ground was left bare. Since then the orchard has been grown for three years and being heavily mulched each year with stable manure, the ground has been very rich, the apple trees were large and healthy, but have no sign of profitable crops, although 35 years old, so the orchard was seeded down to wheat with timothy and clover; a heavy crop of wheat was taken off the first year; the second year was a crop of timothy and clover. Since that time the orchard has never been plowed. It has been fertilized each year with potash and phosphoric acid, twice a year, and has been treated with stable manure, twice a year, and has been limited at the rate of 30 bushels per acre; a few years ago daisies made their appearance, so for two years a flock of sheep was kept in the orchard, and the grass was allowed to grow up and die and fall down with the leaves from the trees, being neither plowed nor moved. Since 1880 it has been sprayed from once to four times each season with Bordeaux mixture and Pay's green, as the weather and press of other work would permit. Since 1880 it has been sprayed from once to four times each season with Bordeaux mixture and Pay's green, as the weather and press of other work would permit. Since 1880 it has been sprayed from once to four times each season with Bordeaux mixture and Pay's green, as the weather and press of other work would permit.

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## GRANBY SMELTER RECEIPTS

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 to four times each season with Bordeaux  
 mixture and Paris green, as the weather  
 and press of other work would permit.