necessary—sometimes twice in the season. Many a sick looking peach tree will upon examination be found to be nearly girdled by the peach borer, whose work can be discovered by the gummy substance that exudes from the injured roots. Mounding the earth up around the tree and then removing the earth after the period of egg laying has passed is a method of some value and many report good results from applying gas tar to the base of the tree, thus shutting out the borer. The plum curculio is often quite destructive to the peach, but clean cultivation will generally destroy the pupa.

FERTILIZERS

Stable manure is all right to secure rapid wood growth, but its continued use in large quantities produces wood that is soft and tender—easily injured by the cold winters. However in our exclusive fruit section, we do not have enough stable manure on our farms to make it possible for us to do much of this kind of "damage." Fertilizers that are rich in potash and phosphoric acid are most valuable, such as unleached wood ashes and ground bone. We find great profit from the use of commercial fertilizers, the foundation of which is usually muriate of potash and ground bone from the packing houses.

COVER CROPS

About the middle or last of August we sow some cover crop in the orchards. Oats and barley have been very good, but the sand vetch is now most popular, as it makes a mammoth growth and also adds considerable nitrogen to the soil, it belonging to the class of legumes. When it first begins to grow, this cover crop acts as a "robber" crop, taking up the soil moisture and available fertility at a time when we want the trees to stop growing and to ripen their new wood. Later this cover crop acts as a blanket, to hold the leaves and snow, preventing bare spots on exposed knolls and the consequent deep freezing and root injury. In the spring this cover crop furnishes considerable humus to be turned under and thus improve the mechanical condition of the soil. Clovers would be even better for this purpose, as they furnish considerable plant food, but they have to be left too late in the spring if they get much growth, and they are then robbing the trees of food and moisture at the time when the trees should be making their best growth. We also find it difficult to get a catch of clover under large bearing trees.

Finally, adopt the most intensive methods to produce the largest and handsomest specimens, pick and pack them carefully and as near ripe as your market will permit, pack honestly so that you can guarantee every package, market through some co-operative system that will eliminate as many middle men as possible and, above all things, be "in love with your job" and "Johnny on the spot," and you will be safe in looking for a neat balance on the right side of the ledger at the end of each season.

Fall Cultivation

J. Arthur Johnson, Grimsby, Ont.

I read the article on fall cultivation by Mr. R. W. Starr of Wolfville, N. S., that appeared in the November CANADIAN HORTICULTURIST, and agree with him in some points, but in others I differ. His method of fall plowing from five to six inches deep, I cannot agree with.

In the first place plowing six inches deep brings the air space too close to the main roots of the trees. In a great many of the peach orchards of the Niagara district, the main roots are not much more than six inches from the surface of the ground; therefore, it would leave the roots too much exposed. My second and most important reason is that plowing to the depth of six inches would cut off all the fibrous roots which are the main feeders and thereby weaken the trees. My method is to allow the fibrous roots to come close to the surface so that they may get stronger nourishment and also the benefit of all the showers.

As to the cultivation on fall plowing, I have never practised it, as I never saw the need of it on sandy land, as the ground falls close together when plowing and after a good rain the ground is pretty well united. The extra expense of cultivation also is saved. But I think this method of cultivation might be well applied to heavy ground which usually breaks up in lumps when being plowed.

I agree with Mr. Starr as to leaving the fall plowing until the leaves have fallen. This year in our orchard after the leaves had fallen the ground was completely covered. This also acts as a root mulch and helps to add humus to the ground as well as to destroy all the insects and pests that may be harboring near the surface.

I agree, also, as to the time of putting on manure and fertilizers. The fall is the best time, as the summer seasons are very dry and the fertilizers cannot give good results in dry weather. My method is to spread the manure on the ground in the fall and to plow it under to a depth of three inches. This gives the trees a chance to start a vigorous growth in early spring and to produce a good crop of first class fruit and still leave the tree in healthy condition for the coming winter.

A Business Peach Tree—Low-Headed to Facilitate Labor and Open to the Sunlight

The tree illustrated is ideal in shape, according to Mr. J. W. Smith, of Winona, Ont., upon whose farm it is growing. It is four years old and is seven feet high and twelve feet wide. Trees in this orchard averaged five baskets each last season. At the last convention of the Ontario Fruit Growers' Association, Mr. Smith strongly advocated the low-heading of peach trees, by which system all the peaches can be picked without ladders. By this method, there should be No. 1 peaches at bottom of the tree as well as at the top. Pruning is done chiefly in winter. The limbs are thinned out to allow sunlight to enter and the air to circulate freely. Mr. Smith, who stands in the illustration, is one of the most successful peach growers in the Niagara district.

It is said that soda-bordeaux and Paris green will kill poison ivy—an excellent proof of its danger to fruit trees.