

The quantity of early apples is about sufficient for home consumption, and it is doubtful whether large plantations of such varieties as Duchess, Red Astrachan, or even such good fall varieties as the Gravenstein and Yellow Bellflower should be made. The European market at present is the only one that can be said to be unlimited, hence only such varieties as will carry successfully can be recommended for large plantations of commercial fruit. In the northern districts there is still room for experiments in the matter of winter varieties. Although many of these have been planted, the results as reported by the growers are somewhat conflicting. The care, however, given to orchards varies so much that it renders any conclusion impossible. It is therefore highly desirable that experimental orchards, not necessarily large, should be planted in different sections of the country, under conditions as uniform as possible. Such orchards would not only be an example of the best methods in orcharding, but would give reliable data with reference to varieties. Although I am not in a position to speak absolutely upon the subject, I am of the opinion that the varieties most in demand in the European markets can be grown in this district, though it would be no doubt better to top-graft on some such stock as McMahon's White or Tallman Sweet. It may be taken for granted that with ordinary precautions all the commercial varieties can be grown in the southern district.

The orchardists of New Brunswick are making one or two serious mistakes in orchard practice. In most of the orchards the trees are planted from 12 to 16 feet apart. This is altogether too close; much better results could be obtained even with the Duchess, a small growing tree, if it were planted 25 to 30 feet apart. Large growing varieties, such as the Rhode Island Greening and Northern Spy, should not be planted closer than 35 or 40 feet apart. The

saving in close planting is only in the rent of the land; there is a serious loss in the difficulties of performing all orchard operations. The rent on the land occupied by a tree, even at the greatest distance, should not be more than ten cents per tree, a sum that is soon gained by the ease with which spraying, pruning and gathering of the fruit may be done.

This close planting practically leads to letting the orchard run to sod, and to this fact I feel sure we can attribute much of the want of success that has been reported in individual cases. I take it for granted in recommending orchards in any place, that clean culture is to be the rule. We visited, in Fredericton, the orchard of Mr. Gillman, where we saw a splendid example of comparatively wide planting and clean culture. The vigor of his trees was so much greater than that of the orchards in the neighborhood, grown in sod, that all who have carefully studied the conditions must agree that clean culture must be the general rule for orchards. In nearly every orchard visited we found the trees badly infested with oyster-shell bark-louse, and Sun-scald was quite prevalent. For the former it was recommended that when the trees were dormant they should be sprayed with a lime whitewash made just as it would be made in use with a brush, strained carefully and applied with a spray pump. In addition, spray carefully with a kerosene emulsion when the bark lice are moving in June. For sun-scald it was pointed out that if the tree were leaned a little toward the southwest, so that the limbs would shade the trunk, and if the pruning were not too severe, this injury might be prevented. There appears to be some difficulty in getting suitable nursery stock, though it is likely that the Department of Agriculture, working through the Agricultural Societies, will make an improvement in this matter.

The necessity for thoroughly under drain-