

Should We Continue to Plant Trees on E.M. VII Rootstocks?

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The most popular size controlling rootstock in Massachusetts has been E.M. VII. Now another series of rootstocks, Malling Merton (M.M.), are being tested at various experiment stations and in growers' orchards, some of which may have distinct advantages over E.M. rootstocks. An excellent discussion of the performance of trees on E.M. and M.M. rootstocks was given by Prof. Karl Brase, New York Agricultural Experiment Station, Geneva, New York, at the Massachusetts Fruit Growers' Annual Meeting held at Gardner in January. His report will appear in the Report of the 70th Annual Meeting of the Massachusetts Fruit Growers' Association.

At present we have had more experience with the performance of trees on E.M. rootstocks than on M.M. Although trees on M.M. are worthy of trial, trees on E.M. VII are suggested for extensive plantings of McIntosh, until more is known about the performance of M.M. stocks.

Under some circumstances, trees on seedling rootstocks may be more desirable than those on size-controlling rootstocks, for example on exposed, windy sites. The need of size-controlling rootstocks for Red Delicious is doubtful. In many of our orchards, Red

Delicious aren't excessively large trees, since they lack the inherent vigor of McIntosh in this region. Some growers believe they can control the size of seedling trees by pruning without too much difficulty. McIntosh on seedling roots has produced yields of 1000-1800 bushels per acre in Massachusetts.

He feels the final decision rests with the grower. Our obligation is to supply the best possible information upon which the grower can make his decision.

Recently, it has been suggested that growers plant trees on M.M. instead of E.M. rootstocks to avoid virus problems. Prof. Karl Brase provides the following thoughts on this subject, and he is quoted directly as follows.

“Those who advise your growers to use the Malling-Merton rootstock clones instead of certain East Malling clones, because the former do not carry a latent virus or latent virus complexes, better first inform themselves about latent virus diseases in apple varieties and rootstocks.

Even among the M.M. group are clones that do not have a single mother plant that indexes virus free on certain indicators. The same is true of many of the so-called super strains of our well advertised varieties. There are latent virus



diseases present in apple varieties as well as in certain apple rootstock clones. But before one condemns the use of certain rootstock clones, one has to prove that the latent virus actually affects growth, bearing, and the end product, namely the fruit.

Virus diseases that do harm, of course, should be eliminated - I am referring here to those with visible symptoms either on the tree or the fruit. As long as we do not know what effect the latent virus present in the rootstock has upon the variety, we should not condemn the use of the rootstock.

We have used E.M. VII and others in the E.M.

group for more than 30 years successfully and shall continue to do so. As far as we know now, the latent virus present in E.M. VII has not affected in any way the varieties we have grown on this rootstock.

I see no advantage in the use of rootstocks free of latent virus if we have to grow on them varieties that carry also a virus in a latent stage.

It will take a number of years to prove or disprove that the latent virus present in E.M. VII is harmful and affects the performance of the trees. As long as this is unknown, growers should not be alarmed about it.”

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