

The Multiple-Variety Tree

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Starting with the 3- 4- 5-way tree which he purchased from a nurseryman or the multivariety tree which he created himself, many a pomological hobbyist has gone on to build the multiple-variety tree—varieties multiplied upon varieties until each leader is sectionalized into up to half a dozen varieties, and the laterals from these varieties changed into still other varieties.

Why does he do it? We hobbyists can give many GOOD reasons for adding variety onto variety, ad infinitum—not all of them valid. But whatever he tells himself, the reason the hobbyist makes multiple-variety trees is because he has become a collector.

He resorts to these many-variety trees because he lacks either the land on which to spread his collection as single variety trees, or the time to tend the greater area involved; or because he does not know of the dwarfing rootstocks that will permit him many varieties in a small area; or because there are no satisfactory dwarfing rootstocks for the genera in which he is interested, or for the climate in which he lives; or because he has an existing tree or trees which he does not want to destroy, but from which he wants more variation; and he makes multi-trees to see if he can, or show that he can.

Why anyone collects fruit varieties, used stamps, cups and saucers, the printed covers of paper matches, is a question for a psychologist.

Beyond satisfying the collecting urge, a man collects varieties for one or more of the following reasons: 1. To have and enjoy, over an extended

period, a variety of fruits. 2. To test—for the immediate or distant future—the commercial possibilities of varieties as fruits or trees to sell. 3. Altruistically, to test the adaptability of varieties for his community. 4. Either altruistically or commercially, to maintain a scion-bank for others. 5. To attract attention, impress, or gain publicity.

And how successful is the man who collects by way of multiple-variety trees?

The attention one gets is not worth the effort. Publicity backfires and puts the idly curious tramping thru one's holdings. The lay public does not know enough to be impressed; the professional pomologist knows too much to be impressed; the fellow hobbyist, often, is too much impressed by his own to be impressed by the other fellows.

Long and persistent must be the activities of the tester who influences a community, for people stay by the known—in fruit—or buy the beautifully illustrated.

Multiple-variety trees are far from an ideal way to maintain a scion-bank. First there is the problem of keeping the varieties identified. Name tags are frequently lost. The single variety tree is in a fixed location, its position can be recorded. But in the multiple-variety tree, the scion that was grafted away up and over there, after it is heavy with fruit can be away down and around here, and without a tag to identify it.

A collector of varieties is also a collector of the pests of fruit and tree. In the multiple-variety tree he has prepared for these insects, mites and

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fungi, varieties—buffet style. In a 23 variety sweet cherry tree of the writer, the “dead bud” fungus killed some varieties and left other varieties unharmed, but killing enough of the tree in one year that the tree was taken out.

Multiple-variety trees are far from an ideal medium for maintaining a scion-bank for the reason that every time the propagator adds a variety to his tree he chances adding a virus that will travel to every variety in the tree. Spreading a virus—even when the propagating wood is gratis—is not fair; and selling viruses is poor business.

The writer has had two Clark-dwarf apple trees—of 15 and 10 varieties—go down before the stem-pitting virus. A pear tree of 31 varieties succumbed to a complex of two serious viruses and one mild virus. On the other hand, he has an apple tree that has had over 60 varieties grafted into it, and this tree has but one known virus, the mosica virus, which seems to do little harm to tree or crop. And he knows a hobbyist with 120 apple varieties in one tree with no destructive virus having shown up.

When the hobbyist gets his multiple-variety tree to the point where he is adding varieties only to the outside of the tree (perimeter-working) he has a poor or, at best, a slow method of getting a “reading” on newly added varieties. There are several reasons for this:

1. He gets a slower growth of his scion when it is at the end of a limb than he would if it were on a good rootstock.

2. A neighboring limb can take dominance over the added variety, suppress its growth and delay its fruiting. The writer has had this happen a number of times. For example, when two forks of like diameter, laying in the same plane, were grafted (within minutes of one another) to two dif-

ferent varieties, it was the less vigorous variety, Cox Orange Pippin, that took dominance over the more vigorous variety, Granny Smith, and in five years outgrew it 20 times over.

3. In the first years of fruiting, a perimeter worked variety is often not itself, most probably because it is under the influence of a nearby variety. (Were this but a theory of the writer, he, an amateur, would hesitate to record it, but research by professionals support it.) Fruit too small for the variety, fruit which lacked the coloring of the variety, fruit that lacked the taste of the variety in the first years after perimeter working, but became typical of the variety in later years—all have been encountered by the writer. This change from atypical to typical fruit is completed by the time the leaf area of the perimeter-worked variety exceeds the leaf area of the limb to which it was added.

The writer has made multiple-variety trees of other genera than those mentioned. The European plums can be added to one another, indefinitely. The Oriental plum accepts varieties of its own genus, easily. American-oriental hybrid and European plums, apricots and peaches can be added to these trees; but there is a high degree of incompatibility in these combinations and eventually the other species and genera are cast off. When one adds many pear varieties to a large growing quince tree, he finds that varieties which are compatible with quince when they have only the rootstock to dominate, are not so compatible when they are far out on a quince limb.

The writer has not succeeded in making multivariety trees of either the peach or the apricot. He finds it not difficult to propagate either species on young seedlings; but once established as trees of one clone, these two species seemingly reject other clones. He has gotten other clones into estab-

lished tree, but comes a damaging freeze or fungus, the introduced clones are knocked out.

Pruning is a problem in the multiple-variety tree. A renewal system that takes out limbs that have been brought too low by heavy fruiting, can not be employed,—and the varieties maintained—without regrafting the low varieties into oncoming limbs, higher up. Vigorous varieties have to be over-pruned so that they do not over-crowd slow growing varieties. Varieties no longer wanted are left in the tree for numbers sake; or are left in because they are second on a limb that has a desirable terminal variety.

Eventually, however, the multiple-variety builder does achieve some of his goals, the surest of which is: He will have many varieties to experience, to enjoy and to share—in one manner or another.

When the pros and cons of a project are in, and the disadvantages seem to outweigh the advantages—as presented here—the true summation of

the writer's arguments is in his answer to the question: Would you do it again?

Yes. Under like circumstances, I'd do it over. But, if I should have the choice, I would work only with true dwarfing stocks, and I would not go beyond five varieties to a tree—and that many only where I wanted but a sampling. Where fruit for extended use was desired, I'd have a tree or trees of a single variety.

And where experience dictated, or knowledge was available (in these 3- 4- 5-way trees) I would group with an eye to vigor, grafting weak growers in one tree, strong growers in another. I would also group by spray requirements, keeping together those varieties that need spray for blight, for mildew, for scab, etc.

Far from the least reason in the decision to repeat my failures and successes with several to many varieties in a single tree, is the opportunity it would give me to meet the fine and generous sort of people who helped me in gathering my variety collections.

The Vale Strawberry

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The Crops Research Division, Agricultural Research Service, U. S. Department of Agriculture, and the Oregon Agricultural Experiment Station, have introduced the strawberry variety Vale, formerly tested as US-Oreg. 2331. Vale originated as a seedling from the cross US-Oreg. 2012 x US-Oreg. 2100, made by G. F. Waldo in Corvallis in 1950, and was selected by him in 1952. It has been tested at Corvallis by G. F. Waldo; the North Willamette Experiment Station, Aurora by R. M. Bullock; and the Malheur ex-

periment Station, Ontario, by E. N. Hoffman.

Vale, when first tested, as US-Oreg. 2331, attracted considerable attention because of its plant size, producing few and sometimes no runners. This plant vigor seemed to be maintained even when grown in soil contaminated with red stele although greenhouse bench tests did show that it was susceptible. Fruit production was also comparable to plant vigor, with yields of 10 to 13 tons per acre.

Since few runners are produced,

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