Training System Anxiety

Some growers have the knack for growing long-lived orchards. These growers tend to take the time needed for site preparation techniques mentioned above. In addition, they also use tree training techniques that encourage good tree structure. There are many training systems such as 3 to 5 scaffold open center, central leader, Y, palmette, fusetto, quad, and many variations within any one system. The key feature of a long-lived tree is that the scaffold limb arrangement avoids "plumbing" problems. One way to visualize this is to think of a tree as a plumbing project, with tubes (xylem and phloem) running just under the bark. A well-structured tree provides relatively unimpeded flow between the trunk and the scaffolds. A scaffold limb that is "stacked" directly above another scaffold has no clear access to water flow from the roots. Two scaffold limbs that are side by side block "flow" to limbs above them.

Some growers rely on old fashioned wooden clothes pins to help insure good plumbing in their trees. The trees are clothes-pinned when potential new scaffold limbs are 4 to 6 inches long. The clothespin is clamped on the central leader above the new limb such that the tails of the clothespin direct the limb to grow horizontally. This helps to avoid bad crotch angles, poor limb strength, and poor circulation.

Another trick for early years of an orchard is to use 2 or three rounds of pinching and limb breaking in the spring to early summer to encourage growth elsewhere on the tree. This is the so-called "benign neglect" approach to training, a term coined by University of California Extension Specialist Kevin Day. The presence of the broken limbs helps to prevent strong regrowth which happens if the limbs are simply pruned. The tree "gives up" on the broken limbs which are eventually pruned out, but the impact is less harsh than making strong cuts on a young tree.

A third technique to avoid problems in a young tree is to insure that the scaffold ends remain simple in the 2 or 3 years of growth. At the time of bud swell, the excess buds in the first 4 or 5 inches at the scaffold end are removed, leaving the end bud or two intact. This helps eliminate the need for later strong cuts to remove the excess cluster of limbs, a harsh pruning that often leads to disease canker problems. Debudded trees need to have a good spray program for oriental fruit moth to protect the few remaining buds on the scaffold ends.

Bill Shane is a Senior Tree Fruit Extension Specialist and Peach Breeder at Michigan State University. He is also the new director of the South West Michigan Research and Extension Center located in Benton Harbor, Michigan

Long-time UMass Pomologist and Fruit Notes Editor, Dr. William J. Lord, Passes

It is with great sadness that we report the passing of Dr. William J. Lord. Bill served at UMass as the Extension Tree Fruit Specialist, Professor of Pomology, and Editor of Fruit Notes from 1955 to 1985. Bill passed away on March 19 at age 94.

After retirement, Bill focused on fly fishing, but he continued to teach and work at the UMass Cold Spring Orchard for many years. His enthusiasm for pomology and for the orchards of Massachusetts never waned.

Donations in memory of Bill should be directed to the Winifred C. and Jesse L. Rice Fund, UMass Cold Spring Orchard Research & Education Center, 391 Sabin Street, Belchertown. The income from this fund supports the operation of the UMass Cold Spring Orchard.

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