



## **Pruning:**

The Formative Years This is the third in a series of articles on pruning fruit trees ... Properly pruned fruit trees develop a strong, well-balanced framework that produces more fruit.

The first year or two of a tree's existence in an orchard is spent mostly in training the trees making sure a strong framework is developed. The next period can be considered the "formative years." These are the years when the growth is directed to insure proper structure develops. The intervention most frequently takes the form of limited pruning and training.

Scaffold selection occurs during the first one or two years. In most training systems the first scaffold should not be any lower than 18 to 20 inches above the ground. Thereafter shoots should be selected so that they are placed about 4 to 8 inches apart vertically and well distributed around the trunk.

The major mistake that gardeners often make in the formative years is allowing the top of the tree to develop too soon. The result is that the tree develops a 'sail' top and can be blown over and the lower limbs do not develop sufficiently. The natural tendency for trees is that the top will develop sooner and to a greater extent because this is the most vigorous area of the tree and is exposed to the highest light levels. One rule of thumb to apply to this area of the tree is the "1/2 to 3/3 rule." When branches of the central axis are between 1/2 to 3/3 the diameter of the central axis, they should be removed.

With some cultivars, the dominance of the central leader may disappear. This can happen either due to over cropping or by allowing too many limbs to develop from one area. In some instances then it is necessary to re-head the leader back to invigorate it.

One exception in the rule of reduced pruning occurs with spur type Delicious. It is not unusual that trees fail to form sufficient number or quality of scaffold limbs the year of planting. In this case it is necessary to cut back the tree severely. This is accomplished by heading the central leader back to an inch or two above where you headed the tree last year. The side limbs that did grow are also cut back until using what is commonly called a Dutch or bevel cut. By drastically reducing the top of the tree you invigorate the tree and encourage greater growth. The Dutch cut is made to force new scaffolds to develop on the underside of the original shoot having a naturally wider angle. The disadvantage to this system is a delay in the early bearing by one year.

Once the initial lower framework and tree structure is established then pruning during the early bearing years is a matter of annual pruning to insure good sunlight exposure and to develop a series of tiers of branching structures. As you move progressively up in the tree each tier should get shorter and weaker.

Be careful in not allowing the tree tops to become too large too soon in the life of the tree. The natural tendency is to make fewer cuts in the tops of the trees because it is more difficult to reach them.

On mature trees, each year, you should remove one or two large limbs. A few large cuts in the top of the tree are better than more numerous small cuts. Remember that the light environment is always best in the top of the tree so fruit quality and quantity will be greatest regardless of what you do. Prune the top so that light penetrates down into the interior and lower areas of the tree.

Any questions regarding this article can be addressed to Tom Becker, Penn State Cooperative Extension, (717) 840-7408.

## Penn State Agricultural To Hold Open House

UNIVERSITY PARK (Centre Co.) — Penn State's College of Agricultural Sciences will host an open house on Saturday, March 22, from 8 a.m. to 4 p.m.

"This event gives visitors a chance to see state-of-the-art facilities while learning more about careers and educational opportunities in agriculture," said Mari-anno Fivek, undergraduate recruitment coordinator in the college. "Prospective students and other people interested in the agricultural sciences also will have a chance to visit with deans, professors, current students and alumni in a friendly, relaxed setting."

Registration forms and more information about the event are available from the college's Office for Resident Education at (814) 865-7521.

From 8 a.m. until noon on the first floor of the Agricultural Sciences and Industries Building and Henning Building, visitors can learn more about Penn State at Exhibits highlighting student organizations and societies. academic programs and other aspects of the university, including career development and placement, financial aid, and housing and food services.

At 9 a.m., participants can take a bus or walking tour of campus, or choose among several specialized tours. "These facility tours and demonstrations will highlight the college's laboratories and expertise in different areas. including agricultural and biological engineering, animal science, biotechnology, food science, horand veterinary science," Fivek said. "Other tours will feature a computer classroom, the Land Analysis Lab and the School of Forest Resources."

Bus and walking tours of campus also will be held at 1:15 a.m. and 2:15 p.m.

An overview of the college will be held at 10 a.m. in 102 Forum Building. Afterward, prospective students can meet with faculty from each of the college's majors for academic information and advising sessions.

The Office of Student Aid will offer an overview of financial aid and scholarships from 1:15 p.m. to 2 p.m. in 101 ASI Building. At the same time, an information session for students at the Commonwealth Campuses will be held in 118 ASI Building. "This session will help these students prepare for the change to the University Park Campus," Fivek said.

To help increase diversity in the student body, an information session will be held for minority students at 2:15 a.m. in 118 ASI Building. At the same time, a panel discussion on women in the agricultural sciences will be held in 101 ASI Building. "Current students, faculty members, and alumni of the college will discuss their experiences in the University and in their careers," said Fivek.

After the Open House, families can visit the University Creamery. the Penn State Bookstore on Campus, Pattee Library, and the Palmer Museum of Art. Penn State Housing and Food Services will offer special meal deals for both



