

from planting to spray herbicides and insecticides. In this way the quality of our work was maintained at a high level even though the planting operation was extended far beyond our expectations.

One of the problems was that we normally use our labor for potting and containerizing after the planting operation. Since potting was delayed, some plants did not make up to a satisfactory size for autumn sales. In addition, if one extends the planting season too long, when do you take your holidays! The technique must be planned into the whole of the nursery operations for the year and, if this is done, cold storage of dormant material can only be a useful adjunct to the nursery.

In conclusion, I would say that cold storage, if treated well, is good practice. It needs a good back-up facility; we could not carry on our present level of production without this storage. The cost is high, but if you are able to hire for a short period then the facility is most economical and, in our case, preferable to owning our own storage facilities.

STORAGE OF DORMANT PLANTS AT MOUNTAIN CREEK NURSERY

MIKE HALLUM

*Mountain Creek Nursery Co.
Route 5, Box 170
McMinnville, Tennessee 37110*

Proper storage of dormant plants is a necessity, whether the plants are to be shipped to customers or used as lining-out stock in the nursery. For this reason careful attention must be paid to controlling the environment of the area where dormant plants are stored.

At Mountain Creek Nursery we have attempted to develop a system whereby we can efficiently process dormant stock and still maintain plants in such a way as to insure maximum survival after transplanting. Our bare-root stock is dug soon after it becomes dormant and immediately transferred to our grading, baling and packaging building. Here the stock is graded and, depending on our needs, packaged, baled or boxed for shipment — or in the case of our lining-out stock, moved to our heeling area until planting time.

We also buy a quantity of bare-root plants from other growers. We maintain a cold-storage facility for storage of some of this stock, especially if we anticipate delays in spring planting. Inside the building this material is heeled-in in sand or old sawdust, or

the roots are packed in straw, depending on cultivar and size of the plants.

The 200- and 250-ft refrigerated area occupies the lower level of the building. It is insulated with styrofoam, and two units are used for cooling, one primarily for backup. Water from the units may accumulate and cause puddling. We spray the walls and floor with 50% Clorox solution to help avoid the development of disease problems that can easily occur under damp conditions. The floor is concrete and is thick enough that we can drive right into the storage area for loading and unloading.

It is always difficult to dig dogwood as early as it should be in the spring. Successful reestablishment is never easy later in the season. This past year we dug a small amount of our stock as soon as it became dormant and heeled the plants out in sand in the refrigerated building. We had very good results but want to repeat our trial before adopting this method as our usual procedure for dogwood.

We recently constructed a storage and shipping building for the storage of balled and burlapped stock, which enables us to take care of the stock during the time between digging and shipping. We are able to control the moisture level of the stock, and we do not have to heel-in the plants because the temperature inside is such that freezing rarely occurs. Another important advantage to this type of facility is that it allows for all-weather shipping, which is especially important during unusually wet or cold periods.

In conclusion, we have found that attention to the factors which determine success or failure in storage of dormant plants is vitally important if one desires to maintain a reputation of producing good quality plants.

STORAGE OF BARE-ROOT DECIDUOUS PLANTS

BEN DAVIS II

*Hill Country Nurseries, Inc.
Tahlequah, Oklahoma 74464*

The storage methods which will be covered here have all been used by Ozark Nurseries Company, with whom I have been associated for 21 years. Ozark Nurseries produces a broad line of field-grown deciduous ornamental and fruit plants, as well as coniferous evergreens. The firm is located at Tahlequah, Oklahoma, which is in the northeastern part of the state, in U.S.D.A. plant hardiness zone 7a. According to the U.S.D.A. map, the low