

## KEEPING AFGHAN TREES FRESH

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Afghan pine post harvest characteristics were first studied at New Mexico State University in 1979 by Montano, Fisher and Widmoyer (1980). As the acreage increased, market potentials needed greater attention. A marketing survey was conducted by Starr (1979) at the Frank Robertson tree farm in 1978-79. From a limited return, the customers liked the tree for its ease in decorating, lasting qualities, price and had made the decision to return for another tree the next year. Similar results were reported by Knorr (1984). Sales of cut eldarica trees in the Las Cruces area during the 1985 season were poor. Principal complaints concerned color, fullness and lack of fragrance.

Since the trees grow rapidly under irrigation harvest commences in 2 1/2--3 years from field planting. A choose and cut plantation can overcome most of the criticisms offered in some markets. Freshness has often been touted as the reason for buying locally produced trees. It is true that fragrance is limited with this species. As one customer has commented, "Maybe that is an advantage, especially since some of us suffer from allergies". The lack of resin exudation is considered favorable, along with needle retention. About the only solution to the lack of fragrance is to supply aerosols of pine scent for reluctant buyers.

It has been shown that a constant supply of water improves the performance of the tree in the home. This is easily accomplished by direct customer harvest and set up at home in a water holder. A tree grower-seller has to consider ways to improve water retention in the tree--to improve customer satisfaction. Most of Afghan pine needle drop observed in sales lots has been old dead needles present in the field. Growers should remove these needles before the tree leaves the farm.

The trees natural reservoir should have the optimum amount of water at harvest. In the southern New Mexico climate, an irrigation one month to six weeks ahead of harvest might be beneficial. Fresh cut trees always last longer.

The problem of color is perhaps more difficult to address. Most of Scotch pines have been sprayed with a colorant prior to harvest. In New Mexico, limited trials have included colorants. In talking to a few growers, it seems that the color additives have not been applied early enough. Most directions recommend that the trees be sprayed one month prior to harvest for best results. Another method used for larger trees for public display has been to flock the trees. This is not as popular in our area as it is further north.

Another observed problem in plantings has been the lack of weed control. Competition with weeds and grass affects the natural green color production and retention of needles in Afghan pines. The weeds compete for fertilizer

and water. Further trials of timing and amounts of fertilizers should be tried. Phillips and Fisher (1985) reported sewage treated trees had as good or better color and marketability traits as those which received commercial fertilizer applications.

Experimentation has showed that the longer a tree is cut and/or stored the less water it will take up in rehydration. The removal of the basal 1 to 2 inches increases water uptake, but may not appreciably affect fire retardant abilities. Color lost will not be recovered. In general the larger the tree, the warmer and drier the indoor atmosphere, the more water the tree will require. When first moved into the home, a greater amount of water is needed. Sales persons should recommend large containers, those holding 2 to 3 gallons of water. Have the customer check the water level each day. This will ensure an uninterrupted supply of water.

In storing trees, the results from other tree experiments has shown that trees stored in sun, have greater needle and color loss. Those growers who cut, netted and stored trees in piles in the sun had severe loss of color and needle drop. Afghan pines should always be stored in shade. Some growers have improved the quality of Virginia pines by storing trees in shade, upright and in water. At New Mexico State the addition of preservatives did not increase either longevity, color or fire retardant qualities.

#### RECOMMENDATIONS:

1. Growers need to adequately water and fertilize trees. Control weeds. Be sure trees are spaced so as to produce size and shape desired by your customers. Use colorants according to label recommendations.

2. Harvest trees as needed. This reduces storage maladies. Maintain moisture. Display only trees that you expect to sell on a given day.

3. Store trees upright. Trees will absorb moisture through their butts. A wet media such as peat, sawdust or wood chips is suitable. A plastic lined ditch could be used in a soil lot. Protect from the wind. Provide a barrier of reed fencing, lath, opaque plastic. Overhead shade is desirable.

4. Piling trees, even if covered, increases the temperature of the trees. Keep the trees as cool as possible. Unheated buildings can be used for storage, but be sure to sprinkle the trees several times a day to keep the humidity high, reducing water loss from the trees.

5. Display trees in a water stand. This helps educate the buyer on the best way to insure satisfaction and quality of tree. May lead to an extra sale.

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