## WHAT TEE FOREST OWNER IS LOOKING FOR IN A HARDWOOD SEEDLING

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In my present duties with Crown Zellerbach, I deal exclusively with cottonwood. In the past I have dealt with sycamore, oak, gum, etc. With the thought of giving you a more complete picture of what we in the industry would like in planting stock, I approached several other people who have active planting programs in the Delta.

Before I get into the meat of this, let me say this is quite a challenge for all of you to meet. It is not impossible but it will take a lot of hard work.

I think, we all agree, that those of us planting hardwoods are treated by the nurserymen as stepchildren. I'm not referring to personality conflicts, but to the fact that your bread and butter is pine and anything else takes second place.

The hardwood industry has pumped thousands of dollars into state treasuries for establishment, development and operation of state nurseries. It has only been in the last few years that hardwood planting stock has been in demand. I will say that the supply of cottonwood cuttings has been adequate for the demand but everything else has been in short supply.

Now, the specifics. Here is what we would like in hardwood planting stock.

## A. Cottonwood cuttings

- 1. Expand only proven improved stock.
- 2. Take better care of stock you get to custom grow. Put cuttings in water immediately after receiving and until planted. Soak no longer than one week after receiving.
  - 3. Closer pruning of switches
- 4. Put switches in water after cutting and store in water until customer picks them up.
  - 5. Cut no more than 2 days before pickup or delivery (switches).
  - 6. Better method of estimating number of cuttings in switch length.
  - 7. Cut in even lengths and each length in separate bundle.

- 8. Cuttings 1/2" to 1 1/4" in diameter
- 9. Bundle in peat moss.
- 10. All buds up when packed in bundles.
- 11. When packed in bundles, paint top of bundle bright color. This prevents planting upside down and helps tractor driver to see stick before it sprouts during first cultivation.
  - 12. Deliver one day after cutting (stick length).
  - 13. Planting stock free of insects and disease
  - 14. Live up to commitment date.
- 15. Several people feel the nursery at Mt. Olive, Mississippi produces inferior planting stock because of its location.

## B. Cottonwood Seedlings

- 1. At least 2' tall but no taller than 5'.
- 2. 3/8 1" at root collar
- 3. Pack in bundles of fairly even lengths.
- 4. A dependable method of producing cottonwood seedlings.
- C. Sycamore This seems to be the next most important species after cottonwood. It is hardy, not susceptible to deer damage and is a fast grower.
  - 1. Seedlings range 1 1/2' to 3' tall average 2'. This size seedling seems to survive better, and is easier and cheaper to handle. It is also tall enough to see in cultivation but not so tall that they can't be straddle-cultivated the first time or two.
    - 2. 3/8" to 1" at root collar
  - 3. Roots no longer than 6". Pruning of the roots should be done at the nursery or develop some type of screen to prevent excessive size in sycamore roots.
  - 4. Hold seed in cold storage until later in the planting season. Trees will have shorter growing season and should not get too large.
  - 5. Sycamore production is very unreliable. A system must be developed to insure consistent germination.

Ash - This species is going to get considerably more attention in the future. It is not a slow grower but a relatively fast grower. Not fast in the sense of cottonwood or willow, but it will grow 1/2" to 3/4" per year and that isn't slow. It seems to be adaptable to planting on low sites. Seedlings are easy to handle and the seed easy to collect.

Sweet Pecan - This is another tree of the future. I've heard this tree called "the walnut of the South".

Other species of interest are sweet gum, yellow poplar, willow and shumard oak.

For ash, sweet pecan, ,sweet gum, etc., we would like the following:

Seedlings 2' to 3' tall

Seedlings 3/8" to 1" at root collar

Care in lifting - do not lift early and heel in or store. Bundle and ship as soon after lifting as possible.

All seedlings well packed in damp peat moss.

Bundles bound with metal rather than plastic straps. (Plastic straps tend to stretch and bundles fall apart.)

Maximum - 250 seedlings per bundle.

Some type of systemic insecticide and rodent repellant

As far as hardwoods go - cottonwood is the big dog for the nurseries, but you can look for accelerated activity in sycamore, sweet gum, green ash, and sweet pecan.

I'm not indicating here that you can expect orders for 100,000's of seedlings of these species. International Paper may be looking for 500M to 1MM sycamore or sweetgum seedlings but the rest of the orders will be in the 50M to 100M category.

If all the nurseries you represent total your orders and come up with 10MM seedlings and cuttings for any given year in the decade of the 70's, it will be quite a surprise. I doubt if you even have a market for half that at present.

Most of the specifications I have made can be met this fall with only a little additional effort. I dare say that all can be met by next fall. I hope I didn't upset any of you too much in my earlier comments about all nurseries being pine oriented, but if you will reflect a little you will find that these comments have a firm basis.

We're kind of like a knat in your ear--we make a hell of a lot of noise but aren't big enough to do any harm.