2003 NCCTA Planting Survey Results

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The NCCTA invested in its first Fraser fir planting survey in 2003. A committee lead by Renee Campbell developed the survey. In addition to regular NCCTA staff duties, Linda Gragg and Julie Hayes mailed out 1,785 surveys in late summer followed by second letters and reminders. A total of 510 people (29%) responded to the survey and of these 352 are currently growing trees.

The survey was intentionally short to foster greater participation. Growers were asked how many trees they planted each year from 1998 to 2003, and how many they expected to plant in 2004. To correct for losses between planting and harvest growers were asked to estimate their cull factor. Looking to the future, growers were asked if they expected to increase, decrease, or maintain current planting levels over each of the next three years and if they thought their neighbors were planning on doing the same. These questions were included as a way to evaluate grower perception and further estimate planting trends in the near future.

When the data was tabulated, a general increase was observed from 1998 to 2003:

- Not every grower reported setting trees every year.
- The average number of trees planted per grower increased from 8,552 in 1998 to 12,098 trees in 2003.
- The number of estimated acres being planted by respondents (assuming 1750 trees at 5 ft. by 5 ft. spacing) increased from 1,544 acres in 1998 to 2,599 acres in 2003.
- The total number of trees planted by survey respondents by year grew from 2,292,037 trees in 1998 to 4,137,162 trees in 2003. The totals from the survey are found in Figure 1. Reported increases occurred steadily with 300,000 to 400,000 more trees being planted each year during the 6-year period.

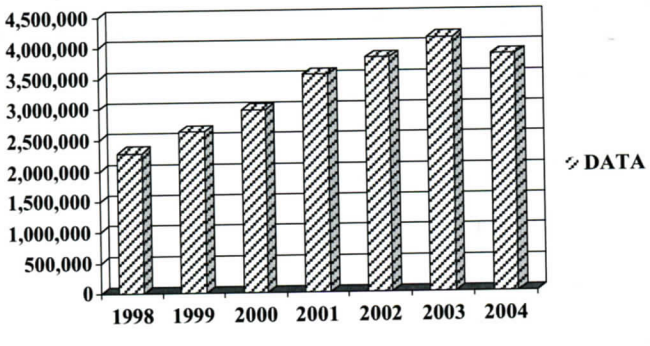

Figure 1. Annual planting of Fraser fir reported by respondents

The 352 survey respondents reported planting 1,845,125 more trees in 2003 than they did in 1998. This represents an 80.5% increase in the number of trees planted in 2003 compared to 1998. This is a significant increase in the number of trees being planted by survey respondents. However, we really need to know how many trees the North Carolina population of growers planted, not only those who responded to the survey.

An assumption needed to be made regarding the size and composition of the population of growers in North Carolina. The North Carolina Department of Agriculture and Consumer Services (NCDA & CS) identified 1,465 Fraser fir growers in North Carolina in their 1997 market survey. In completing that survey, growers who did not send back the survey form were interviewed by telephone or in-person. It still is the most complete picture of the North Carolina grower population available.

1997 NCDA Survey			2003 NCCTA Survey		
Grower Size Class		Number of Growers	Number of Respondents	Percentage of NCDA survey	Multiplier to the Population
Part-time	< 10 acres	927	75	8.0 %	92%
Small	10-24 acres	300	52	17.3 %	83%
Medium	25-49 acres	103	37	35.9 %	64%
Large	50-99 acres	75	20	26.7 %	73%
Major	100 +	60	49	81.6 %	18%

Table 1. Size classes of grower respondents as compared to the 1997 NCDA survey.

The survey data was weighted by the number of growers in each size class listed in Table 1. For example, only about 8% of the small growers identified in 1997 responded to the NCCTA survey. Their class needed to be expanded by 92% to represent the population. However, 82% of major growers who responded in 1997 responded in 2003. Thus, the major grower category was only increased by 18% to represent the population.

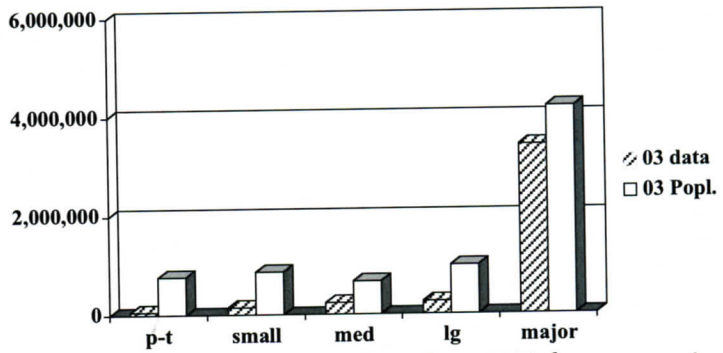

Figure 2. Number of trees planted in 2003 by grower size class.

Reported planting varied greatly by grower size class as shown in Figure 2. Major growers accounted for 3.4 million trees in 2003 or 83% of the planting reported in the survey data. Combined, the other grower size classes accounted for only 17% of trees reported. Expanded to the population, planting by the major grower class accounted for 56% or 4.2 million trees. Other size classes were increased to represent 44% of the population.

From 1998 to 2003, North Carolina growers increased their planting from an estimated 5.8 to 7.5 million trees. Figure 3 represents the total estimated number of trees planted by year and those totals reduced by the average 15% cull factor claimed by respondents. Using the reported cull factor and assuming that planted trees are ready to harvest in eight years, expected market inventory would increase from 4.9 million trees in 2005 to 6.3 million trees in 2010.

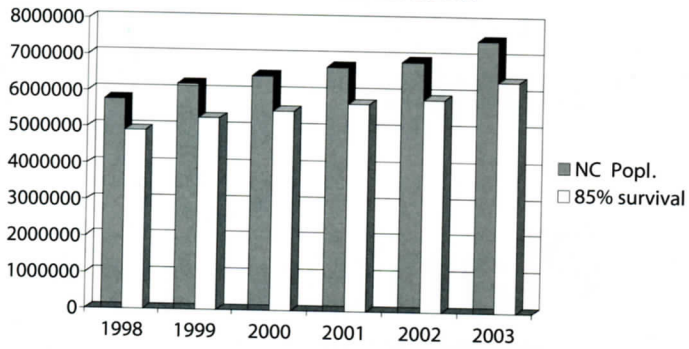

Figure 3. Estimated Fraser fir planting and survival by North Carolina Growers.

These planting and harvest estimates are based on the assumption that the population of North Carolina growers has not changed drastically since the 1997 NCDA & CS survey. Yet, we know it has changed. A change in the number of major growers is the greatest concern because adding a few individuals can impact planting numbers. Major grower respondents reported planting as many as 300,000 trees in 2003 although the average was about 70,000 trees. Each uncounted, new major grower could represent another 70,000 trees. If fifteen new major growers are in production now above the 1997 numbers, the total estimated planting for 2003 would increase by about 1 million trees. If there are more major growers in 2003 than the 60 identified in 1997, the question is how many more? For now, we can only work with the numbers we have in hand.

In the survey, growers were also asked what direction they thought their future planting would take. Figure 4 shows the average number of respondents that expected to increase, decrease, or maintain the same level of planting during 2004, 2005, and 2006 as they did in 2003. Close to 30% expected increase planting in 2004, but that level dropped to only 13% of growers by 2006. Increased planting was balanced initially by 18 % of the growers in 2004 that expected to decrease planting but those decreasing dropped to 12% by 2006. The number of growers that expect to maintain the same level of planting jumped from 35% to 52% indicating a leveling off of expected future planting. When asked about their neighbors, respondents reported almost identical patterns of future planting as they predicted for themselves (except for a higher percentage of growers who did not know).

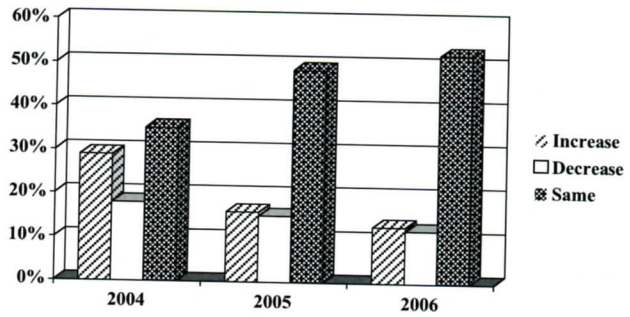

Figure 4. Percent of respondents increasing, decreasing, or maintaining planting.

Given that most NC Fraser fir growers have sold out of trees the last several years, increased planting is no surprise. Optimism is an appropriate response to a seller's market. The concern about planting has been driven by national sales trends and reported planting increases in other regions. The National Christmas Tree Association's 2002 polling indicated a sharp downward trend in the number of homes using a real Christmas tree. Estimates dropped from a high of 36 million trees in the mid 1990's to as little as 22 million trees in 2002. Reduced demand may be exacerbated by increased production of Noble firs from the Pacific Northwest in the next three years.

Certainly there is reason for concern about the national market, but not for panic. If increases in the Noble market are not sustained as some sources indicate, national numbers could again be down by the time North Carolina Fraser fir peaks. Awareness of the NC planting trends can provide growers with the needed information to support their own production with targeted marketing and promotion.

The "Perfect Christmas Tree" brand identity promotional program by the NCCTA is working to build market share ahead of North Carolina Fraser fir supply. Efforts at NC State, the NCDA, and NCCTA related to Christmas tree freshness are geared to address public concerns about the freshness of real trees. The NCCTA retailer newsletter planned for 2004 will provide research-based information to the segment of our industry that deals directly with the consumer. Together the

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industry can work to address key problems that face the Christmas tree market.

Growers should not automatically cut back on planting based on these survey results. Trees planted this year won't be ready for market until after NC Fraser fir production is likely to peak! With a long-rotation crop, planting response to market cycles lags behind the effect. Growers can get "out of synch" and unable to meet market demand. It would be better in the long run to hold to your production plan and respond to short-term market swings with increased investment in marketing and promotion.

Leadership of the NCCTA saw a need for better information about North Carolina production. It cost the Association approximately $2,454 to conduct this survey, not including many hours of volunteer help. Please let your leadership know if this information from your association is helpful in planning for your business. If it is worthwhile to the membership, it will be continued.

Julie, Melissa Barr, Jody Gimlin. Thanks for all the help.