

## Focus on Christmas Trees

### Profile of a Sustainable Christmas Tree Grower

Although Aubrey and Linda Raper moved to the mountains in Madison County, NC, to raise their children, they also quickly learned how to grow Christmas trees. They had no previous farm experience before growing burley tobacco, tomatoes and Christmas trees in 1977. From the beginning of their farming career, they were against the idea of using pesticides, both philosophically and pragmatically.

The Raper family saw firsthand the detrimental effects of pesticide use in Avery County. Avery County was the first county in North Carolina to grow Christmas trees. The growers in Avery County used large amounts of herbicides to kill the ground-cover beneath the trees which resulted in larvae in the soil feeding on the tree roots. The Rapers also realized that pesticides are expensive. Most Christmas tree growers use pesticides such as Round-Up and Di-Syston. The Extension Service in Madison County estimates that the herbicide Round-Up costs about \$15 per acre per year and the insecticide Di-Syston costs about \$3 per acre per year. Other pesticides may also be used by growers, but the amount and type varies by grower.

The Rapers have a 65 acre farm, three acres of which are set aside for growing Christmas Trees.

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### Facts about Christmas Trees

- Before the 1950s, Christmas trees came primarily from the forest. Today about 98 percent of all trees in the US are grown on farms (*Tree Farming: Environmental Benefits*).
- Christmas trees are grown in all 50 states. The states that produce the most Christmas trees include Oregon, Michigan, Wisconsin, Pennsylvania, California and North Carolina (*Christmas Tree Facts: Fun Facts and Figures*).
- There are approximately one million acres of land in Christmas tree production in the US. There are about 15,000 Christmas tree growers and 100,000 workers (*Christmas Tree Facts: Fun Facts and Figures*).
- In 1996 there were 31 million Christmas trees sold nationwide (*Sales Figures: Fun Facts and Figures*).
- Sales of North Carolina Christmas trees totaled \$78 million in 1996. Trees accounted for \$72 million; wreathes, roping and greenery accounted for \$6 million (*1997 North Carolina Christmas Tree Survey*).
- There were 34.2 million Christmas trees on 23,530 acres of land in NC in 1997. Ashe County produces the most Christmas trees in North Carolina, accounting for 9.8 million Christmas Trees (*1997 North Carolina Christmas Tree Survey*).
- There are approximately 1,600 Christmas tree growers in NC. Two-thirds of growers have operations over ten acres in size. The average Christmas tree grower has three acres of land in Christmas tree production (*1997 North Carolina Christmas Tree Survey*).
- The largest 60 growers in NC have Christmas tree operations of 100 or more acres. They account for less than four percent of the growers, but they produce over 51 percent of the Christmas trees (*1997 North Carolina Christmas Tree Survey*).
- The smallest growers in NC have an average of three acres of Christmas trees. They account for over 66 percent of all growers and yet they only produce 10.7 percent of the Christmas trees (*1997 North Carolina Christmas Tree Survey*).

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**SAF** is a 501(c)(3) non-profit organization whose mission is to bring students and farmworkers together to learn about each other's lives, share resources and skills, improve conditions for farmworkers, and build diverse coalitions working for social change.

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## Sustainable Grower *continued from page 1*

They grow about 1300 trees per acre, and there are about 3900 Christmas trees growing at any given time, in all stages of growth. They grow Fraser Firs which are native to the mountains of Western North Carolina. Every year they harvest about 1,000 Christmas trees. Fraser Firs grow for about three years in a seed bed, and another two years in a line out bed. They are typically about five years old before they are transplanted into the fields. This process of growing them in a nursery before in the fields is necessary for the trees to establish a large enough root system to survive the competition of weeds for nutrients. The trees typically have 16-18 inches of roots before being planted in the fields. The trees then grow in the fields for another six or seven years, making them about 12 years old before they are available to consumers.

The Rapers have never employed hired labor; with the help of their three children they have managed to do all the work themselves. Rather than spraying their fields with herbicides, they use a sickle mower and weed eater to cut the ground cover underneath the trees. They have only had minor problems with insects. Even when there was an outbreak of twig aphids one year, they only lost a few trees. They believe that the benefits of sustainable agriculture outweigh the negative side effects and expense of applying pesticides.

However, the Raper family needed to start using herbicides in 1983 when the first trees they planted had grown for five years.

There was not enough space between the trees to use a mower and the only other option would have been to space the trees out more, yielding fewer trees per acre. The Raper family uses a mild herbicide for 2-3 years underneath each tree, during their last years of growth. They are also experimenting with Fish Emulsion, a byproduct of fish that is rich in nitrogen. Rather than using other ammonia products such as ammonium nitrate, they are testing whether the natural byproduct of fish will make the trees greener.

Not all the trees that the Rapers grow are of market quality, so they established a business in mail-order wreathes. In 1980 they sold only to family and friends. They now sell about 300 mail-order wreathes a year. Aubrey expects the tree production to wane in the future; this year he only set 500 trees, whereas in years past he set 1,000. Trees take up a lot of ground space and a lot of time. The wholesale price of trees has also remained fairly constant for the last 16-18 years. The Rapers have begun to grow more vegetables, selling their mixed vegetables in places such as Durham, Chapel Hill, and Wilmington.

SAF has sold Christmas trees grown using sustainable agriculture for the past three years in the Triangle area. This is our second year working with the Raper family to sell their insecticide-free Christmas trees.

*Interview with Aubrey Raper, Sustainable Christmas Tree grower, Madison County, North Carolina.*

## !!HOLIDAY ITEMS FOR SALE!!

### **Insecticide-Free Christmas Trees \$45.00**

Beautiful 6-7 ft. Fraser Fir Christmas trees grown in the Appalachian Mountains of North Carolina. Your purchase will help Certified Organic Growers Aubrey & Linda Raper continue to use sustainable practices.

*There is a limited supply of trees. To make sure your tree is reserved, call the SAF office a.s.a.p.*

The trees will be available for pick up:

December 4 and December 7-11, M-F, 8:30 am - 6:30 pm at the SAF office. To arrange a pickup time on the weekend, call 660-3652.



*Directions to SAF, 1317 W. Pettigrew St., Durham: From Hwy 147 / Durham Freeway, take exit 14 / Swift Ave.; Travel north toward Duke East Campus / Downtown; Take your first right onto Pettigrew St.; The SAF office is in Room 104 of the Lyndhurst Building / Center for Documentary Studies.*

### **Fields Without Borders / Campos Sin Fronteras \$15.00**

Bilingual (Spanish / English) documentary publication which combines personal accounts of farmworkers' experiences in the Carolinas with national and regional data regarding the demographics of farmworkers and changes in agriculture. 60 pages, 22 black & white photographs

### **Notecards \$12.00**

Ten notecards, five of a farmworker family working in the NC cucumber fields and five of a Christmas tree farm in the NC mountains. 4' x 6' black & white notecards & envelopes

### **Postcards \$10.00**

Ten postcards, five of a farmworker and her two children and five of a Mexican Band at the Farmworker Festival. 5' x 7' black & white glossy postcards



## ORDER FORM

### # of Items

\_\_\_\_\_ x \$45 Insecticide-Free Christmas Tree  
 \_\_\_\_\_ x \$15 Fields Without Borders/Campos Sin Fronteras  
 \_\_\_\_\_ x \$12 Notecards  
 \_\_\_\_\_ x \$10 Postcards

\$ \_\_\_\_\_ Subtotal  
 \$ \_\_\_\_\_ In North Carolina, pay 6% sales tax (unless a tax-exempt number is included \_\_\_\_\_)  
 \$ \_\_\_\_\_ Shipping (\$2.75 for orders under \$20; add no shipping for Christmas Trees)  
 \$ \_\_\_\_\_ Total amount due

Name: \_\_\_\_\_ School/Organization: \_\_\_\_\_  
 Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Fax: \_\_\_\_\_  
 Email: \_\_\_\_\_

Mail or fax this form and a check, money order, or purchase order to:  
 Student Action with Farmworkers (SAF), 1317 W. Pettigrew, Durham, NC 27705, 919-681-7600 fax

