

"Fields of Clover"

A Major Advance

in Christmas Tree Production

By Doug Hundley, Director of Avery Co. IPM Program

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Have you noticed something different in the Christmas tree fields you've been driving by this summer? Take a closer look. There is a major change underway in weed control in your local Christmas tree fields.

Where has all the bare ground gone? It's turning greener in the tree fields and it's mostly clover! In three years and a lot of hard work, a dedicated group of tree growers and Doug Hundley with the Cooperative Extension IPM Program have been developing and testing a new way to "manage ground cover," as they like to call it.

How? "By using a common herbicide with very low toxicity and using it at such low rates it shouldn't work. The cost of the material is very inexpensive and we can apply it so cost effectively the growers are astounded. It's harmless to the trees and effective on the weeds (when done correctly). Most importantly, when it's got all that going for it, you know it will be adopted by tree growers very, very quickly," says Doug. The economic benefits are obvious.

What about the environmental benefits? They are huge! First is a great reduction in herbicide use. "This will replace the use of 5 other herbicides" says Doug. The technique involves using the common homeowner/yard herbicide, Round-up which is simply a form of sodium and no more toxic than

table salt. Then they are using very low rates per acre."

Second is the establishment of wall to wall groundcovers, thus eliminating bare ground and controlling weeds naturally. Graham Ferrell, Farm Manager for Christmas Greens says, "Interestingly, one of the first benefits observed was the proliferation of some natural groundcovers, particularly Dutch white clover that had been suppressed in previous years. As the season progressed, we noticed that some of those weeds we had fought so hard to suppress in previous years were



being choked out naturally by the groundcover".

Doug confirms Graham's statement. "Most of the fields where this practice is being used are becoming solid fields of clover".

Too good to be true? Paul Smith, tree grower and user of this practice calls it, "an amazing discovery, the most important tool to come to tree production in many years."

So is it for real? It comes from the largest Christmas Tree Study and Field Trials ever undertaken. The success of this effort came from the organization of some of our best and innovative tree growers in Avery County.

Over the last few years the Avery Co. IPM Program has matured, under Doug's direction. It is 12 years old now. Doug and members of the IPM Program have a great working relationship. Together they have been working on important field research questions and testing new ideas. This has been a team approach between Cooperative Extension and the tree growers. They call it "On Farm Research."

This particular innovative idea came from an IPM Program member back in the summer of 2000. Bill McNeely, now current president of the Avery County Christmas Tree and Nurserymen's Association, advanced the idea of a new weed control strategy.

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Doug says, "Bill and I brought the idea to the attention of some growers in the Program with personal interest in the concept. Before we knew it, we had started what would turn out to be a three year study. We called ourselves the Round-up Study Group."

In the end about 15 tree growers across 3 counties would put hundreds of thousands of trees at risk to work out the technique. In 2003 this Ground Cover Management Study Practice has been in a final widespread trial use across Avery County and into the adjoining counties. The results of which seem to have produced a technique that will revolutionize weed management in Christmas trees. NC State University has recognized the Study and is supporting the widespread distribution of the technique across Western North Carolina.




This ground cover management method suppresses weeds. It doesn't kill them. That, in itself, is not a new technique. What is new is the Round-up Study Group developed a safe and effective way to spray low rates of Round-up directly on the new growth of Fraser fir through out the spring and summer months. "This has been a tremendous success, more than we expected in the beginning," says McNeely.

"These brave growers put up their trees to make the gamble, find the rates that would and would not hurt the tree foliage during various weeks from April through July," says Hundley. "Doug spearheaded the Study," says Graham. Doug supervised the quality control of the experimental design and implementation. He collected and analyzed the data. However, all the while, he was having the Grower group participate in the scientific work and interpretation of the results of the Study. Now, still working as a team they will work together teaching the technique to their fellow growers.

"The Study has been a long process, but we knew early on it

would probably work if we kept at it. To develop and then test a new technique has been a big job for everyone involved." says Jack Wiseman Jr., Study Group member.

"I hope you have noticed some of these fields last summer. If not you will start to see them next summer." Doug reminds us, "Just remember the tree growers are as concerned about the long term quality of the water, the soil, and you, their neighbors, as you are. The growers have been working hard to make Christmas tree production a sustainable and neighbor friendly type of farming".

If you have any questions concerning the information in this article please call the Cooperative Extension Center at 733-8270 and ask for Doug Hundley, Director of the Avery County IPM Program. 

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