HERBICIDES 1/

Mason Carter, Auburn University, Auburn, Alabama
(Panel Moderator)

When I was asked to serve as moderator on this weed control panel, I began to wonder what we could present since there has been so little research on chemical weed control in forest nurseries. *We* have an outstanding panel with considerable experience in general weed control who can contribute much to our knowledge and understanding of the problem. Each one will give some introductory remarks on a particular subject and then the session will be open to questions.

Weed control has always been a problem to nurserymen, but it seems to be increasing. This is due to the high cost or unavailability of labor for hand-weeding. The production of hardwoods, of course, has reduced the utilization of mineral spirits because many of our hardwoods are quite sensitive to them. In many cases, the use of mineral spirits over many years has led to an increase in weeds which are resistent to it. In other words, I think many of you are now finding that you've got certain weed problems that you didn't have a few years ago and these problem weeds have considerable tolerance to mineral spirits.

We are behind the agronomist in our use of modern organic herbicides, but we can do a lot more in the future than we've done in the past if we understand the problem. There are a number of proven agronomic herbicides that we can use directly in our seedbeds to reduce this weed problem. But, the first characteristic we need in a herbicide is crop tolerance. We need to kill the weed and not the crop plant. Our work at Auburn has been aimed at establishing tolerance levels.

The second characteristic we need in an herbicide is effectiveness against the particular weed(s) that gives us a problem. In your response to my questionnaire, some of you said that you have grass problems and I'm not talking about nutgrass--everybody has that problem. There are problems with annual grasses, such as water grass, crabgrass, etc. Others have problems with broadleaves, such as the dog fennel, ironweed, and ragweed. No one herbicide, that we have been able to find, that is safe on pine trees is going to control both grasses and broadleaves. We will have to get a herbicide to tackle the particular weed problem.

We must also keep in mind that the rate of application utilized in one nursery may not be applicable at another nursery. There are

---

1/ Panel presentation. Papers of panel participants are included.

considerable soil factors involved which we hope to discuss. So, we must consider resistance variation in the herbicide, and we must pick a herbicide for the problem weed.

Our panel today is pretty well lined up along this line, with information as to how we should go about solving this problem.