

seed germination at the time of application. The soil should be prepared for planting before the chemicals are applied. Soil temperature should be 60° F. or higher for satisfactory results. Two weeks generally should elapse from the time of treatment to planting to allow the chemicals to dissipate.

Methyl bromide must be applied under a plastic cover. It can be applied to soils whose temperature is below 60° F. if the liquid is vaporized to a gas before application. Methyl bromide, of the chemicals tested has the shortest residual life in the soil

Mylone can be either rotary tilled into the soil or carried in by water. Since this chemical breaks down slowly, planting should not be done for at least two weeks.

Vapam should be applied to a soil surface which is moist and not hot, otherwise it volatilizes to form a tear gas like substance. Many Vapam applications fail because insufficient water is applied immediately after application to carry it into the soil. At least one inch of water should be used.

Eptam should only be applied to a soil surface which is dry otherwise it will volatilize rapidly. No water seal is necessary when Eptam is rotary tilled into the soil

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MODERATOR NELSON. Thank you, Professor Kamp. Is there any discussion anyone would like to bring up at this point?

PROFESSOR J. C. McDANIEL (University of Illinois, Urbana, Illinois): I would like to make one comment on the previous paper.

It is concerned with the nomenclature on the Smoke Tree. At least as far back as the 1920 edition of Bailey's Nursery Manual the Smoke Tree has been separated from the genus *Rhus*. The correct name of this plant is *Cotinus coggygria*.

(*Editor's Note:* Dr. Chadwick was unable to attend this session and presented his paper during the Question Box Session on Friday evening, December 5, 1958. It is included at this, the regularly scheduled time for reason of continuity.)

CONTROLLING SPRING WEED GROWTH IN TAXUS BY FALL APPLICATIONS OF HERBICIDES

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One of the major problems in the control of weeds in commercial nurseries is the suppression or elimination of weed growth early in the spring. Cultivation is often difficult to accomplish during this season due to unfavorable soil conditions or because nurserymen are busy digging, shipping or planting stock at that time. This experiment was conducted to determine the effectiveness of some herbicides applied during the fall on the elimination or suppression of weeds the following spring. If it is found that herbicides can be applied in the fall and suppress or

eliminate weed growth during the months of March, April and May, it would be a great aid to the nurseryman.

Five herbicides, or combinations of herbicides, Simazine, Alanap 20G, a combination of SES and CMU, a combination of SES and CIPC, and CIPC were applied on November 1, 1957, to 150 square feet plots in a block of *Taxus cuspidata intermedia*. Control plots were included and all treatments were replicated 10 times. Buffer strips, 2 feet wide, were allotted between each treatment. The soil was mostly a Brookston silt loam and was moist at the time of the application of the herbicides. The liquid herbicides were applied with a knapsack sprayer equipped with a T-jet nozzle. The Simazine was applied at two rates, 4 and 8 pounds per acre, CIPC at 8 pounds per acre, and Alanap 20G at 25 pounds per acre. In the combination treatments, SES and CMU were applied at 4 pounds and ½ pound respectively, per acre, and the combination of SES and CIPC were applied at the rate of 4 pounds of each per acre. All application rates were based on commercial formulations. Check and treated areas were free from weeds at the time the applications were made.

Observations of weed growth were made on several occasions during the spring months. Ratings of weed growth were made for each plot on May 12 and on June 26, 1958. Ratings were based on actual weed counts and on observation of weed coverage in the different plots as compared to the control plots and the adjoining buffer strips. Control plots were given a weed prevalence rating of 10 and the other plots rated from 10 to 0, depending on the prevalence of weeds in that particular plot. Weeds most prevalent in the area included purslane, crabgrass, chickweed and pigweed. Quack grass, bindweed and Canada thistle were also prevalent in certain areas.

The data in Table I show the average rating of weed prevalence in the 10 replicated plots. Ratings were made on the basis of the prevalence of weeds other than quack grass, bindweed and Canada thistle. These three noxious weeds were eliminated from the ratings because they were unevenly distributed throughout the area or absent entirely from certain areas.

Table I.—Average rating of weed prevalence in control and treated plots on May 12 and June 26, 1958. Controls were given a rating of 10.

Treatment	Rating	
	5/12/58	6/26/58
Control	10 0	10 0
Simazine 8#/A	1 3	2 6
Simazine 4#/A	2 0	4 2
CIPC 8#/A	4 4	7 9
SES 4#/A and CIPC 4#/A	5 0	7 6
SES 4#/A and CMU ½#/A	5 4	7 6
Alanap 20G 25#/A	8 5	9 1

As the data in Table I show, Simazine at both rates gave excellent weed control even after nearly eight months from the time of application. CIPC and the combination of SES and CIPC, and SES and CMU gave satisfactory weed control through May 12th but weed growth was prevalent in plots treated with these herbicides on June 26th. Alanap

20G was generally unsatisfactory at the rate and under the conditions it was used.

In plots where quack grass, bindweed and thistle were present, Simazine (8#/A) stunted growth of bindweed and thistle slightly although quack grass was noticeably stunted and off-color. Simazine (4#/A) gave similar results although differences were not as striking. Applications of the combination of SES and CMU resulted in some stunting of quack grass but had little effect on the growth of bindweed and thistle. Applications of the combination of SES and CIPC resulted in a slight stunting of quack grass with no effect on bindweed or thistle. Applications of CIPC alone resulted in little or no effect on the growth of quack grass, bindweed or Canada thistle.

In conclusion, on the basis of this experiment, it would appear that Simazine applied in the fall at 4 or 8 pounds per acre would result in great suppression or elimination of weed growth the following spring and early summer without injury to *Taxus*.

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MODERATOR NELSON: Thank you, sir.

Now that we have finished this afternoon's program I wish to thank everybody for bearing with us. It has been a pleasure to act as your moderator. I will now turn the meeting back to President Hugh Steavenson. Thank you very much.

(President Steavenson resumed the chair.)

PRESIDENT STEAVENSON: Thank you, Dr. Nelson. You and your speakers have done a wonderful job. I never thought you would be able to adhere to the time schedule and nobody else did either.

Are there any announcements before we adjourn? If not, we do stand adjourned, as our program indicates until 9:00 a.m. sharp, tomorrow morning.

One other thing for those who have not had the opportunity to register. You will have that opportunity between eight and nine in the morning. Also, there has been some comment by a few concerning the registration fee and the inclusion of the banquet ticket. Obviously the reason why the registration fee has been made a package deal, is to encourage as large attendance as possible through the entire meeting. I might say also that the registration fees will hardly cover the cost of the meeting. So if you can't possibly make the banquet, you can be glad in your heart that you are making a contribution toward our deficit.

MR WILLIAM FLEMER: I would like to make another plea for nominations for the Plant Propagators Award. We received only 10 cards from the mailing this year. Certainly there must be more whom should be considered.

PRESIDENT STEAVENSON: Bill, if I may say so, the Awards Committee did meet and have considered a number of nominations. Our purpose here is simply to supplement the nominations already made by further invitation to the group for additional nominations which might have been overlooked. I did want to make that explanation, Bill. There has been consideration for over a 12-month period concerning a nominee.

We now stand adjourned until 9:00 a.m. tomorrow morning.

The meeting recessed at four-fifty o'clock.