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AGRONOMY NOTES

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Prepared by Department of Agronomy, College of Agriculture, University of Kentucky

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CONTROL ANNUAL WEEDS IN TOBACCO FIELDS WITH HERBICIDES J. F. Freeman Associate Professor of Agronomy

In the years 1957 to 1967 inclusive, many promising herbicides have been used in Kentucky research trials for controlling annual weeds in tobacco fields. Burley tobacco has been used every year at Lexington, for 4 years at Eden Shale farm in Owen county, and 1 year in McCracken county, while dark air-cured tobacco was used for 4 years at the Western Kentucky Substation, Princeton.

Of all the herbicides used, vernolate (VERNAM 6-E) and diphenamid (ENIDE 50-W) have been quite effective for early weed control and with little injury to the tobacco. Both have label clearance for Kentucky and are the recommended ones for use in Kentucky. Vernolate at the rate of 3 lb/A active should be sprayed broadcast on the soil, over the tobacco plants about 1 week after transplanting and following cultivation, then cultivated in lightly to mix with the soil. Diphenamid at 6 lb/A active should be sprayed in 20-inch bands centered over the row just after transplanting, but not mixed with the soil. Weeds should be cultivated from the middles of the row. Tobacco is tolerant to diphenamid, but small grain cover crops seeded in the fall usually will grow only in the untreated middles of the rows. There it reduces soil erosion if tobacco is contour-planted.

A shallow lay-by cultivation of herbicide-treated tobacco is recommended to destroy the escaped annual weeds and perennial weeds that are not controlled by herbicide treatments.

Results on an average of 5 years' treatment of Burley tobacco with the two recommendated herbicides and a check follow:

	Rate		Visual Estimate percent 4 Weeks After Setting			Leaf	
Herbicide	1b/A Active	How Applied	Annual Wo	eed Control Broad Leaf	Early Injury	Yield 1b/A	Value \$/A
Vernolate	3	7 days after planting cultivated into soil	96	95	5	1776	1160
Diphenamid	6	Just after planting	93	85	6	1672	1021
No herbicide	Cultivate	and Chop	97	96	1	1826	1185

In the trials, vernolate has been used near transplanting time with satisfactory weed control, but this has resulted in some injury to the tobacco plants in some years. It was used about 7 days before transplanting time in 1966 and 1967 with considerable harm to the crop. 1.2M-1-68

6 30.717 (To simplify information in this publication, trade names of some products are used. No endorsement is intended, nor is criticism implied of similar products not named.)

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