



University of Kentucky
UKnowledge

Agronomy Notes

Plant and Soil Sciences

6-1982

Sucker Control Chemicals for Use on Burley Tobacco

W. O. Atkinson
University of Kentucky

Jones H. Smiley
University of Kentucky

Allen Wallace
University of Kentucky

Right click to open a feedback form in a new tab to let us know how this document benefits you.

Follow this and additional works at: https://uknowledge.uky.edu/pss_notes

 Part of the [Agronomy and Crop Sciences Commons](#)

Repository Citation

Atkinson, W. O.; Smiley, Jones H.; and Wallace, Allen, "Sucker Control Chemicals for Use on Burley Tobacco" (1982). *Agronomy Notes*. 104.
https://uknowledge.uky.edu/pss_notes/104

This Report is brought to you for free and open access by the Plant and Soil Sciences at UKnowledge. It has been accepted for inclusion in Agronomy Notes by an authorized administrator of UKnowledge. For more information, please contact UKnowledge@lsv.uky.edu.

AGRONOMY NOTES

Volume 15, No. 5

June, 1982

SUCKER CONTROL CHEMICALS FOR USE ON BURLEY TOBACCO

W. O. Atkinson, J. H. Smiley and Allen Wallace

Maleic hydrazide (MH) formulations containing 3 pounds per gallon of active ingredient can no longer be manufactured for sale in the United States. However, all 3-pound MH formulations that were manufactured before October, 1981 can be sold until the supply of that formulation is exhausted. MH formulations containing 1.5 or 2.25 pounds of active ingredient (Potassium salt of MH) can still be manufactured and sold in the U.S. for controlling suckers on tobacco.

Another type of sucker control chemical which contains a mixture of fatty alcohols (FA) is available. This is commonly referred to as a contact sucker control chemical because it must come in contact with small sucker buds for sucker kill to occur. (Spraying techniques for FA and MH chemicals are outlined in UK's 1982 Tobacco Handbook).

When used alone as a single treatment, a FA sucker control chemical will not consistently give as good sucker control as MH, because of failure of the chemical to contact all the sucker buds on a plant or crooked stalks. MH normally gives 95 to 100 percent sucker control, while one application of a contact usually results in 75 to 90 percent sucker control. Two applications of a fatty alcohol will usually control suckers better than one application, but will not consistently give as good control as one spraying of MH.

Another sucker control chemical which contains a mixture of FA and MH is also available for use in Kentucky. It provides sucker control by both contact and systemic action in one application and has performed well in tests on the UK Experiment Station Farm.

Comparison of FA and MH

To evaluate the effects of early topping (button stage rather than early flower), followed with a FA treatment and later by MH, a series of field tests were conducted during recent years. During this 5-year period, a total of ten tests were conducted on the UK Experiment Station Farm and on farms in 3 counties near Lexington. The treatments were: (1) topped at button stage, sprayed with 2 gal/A of FA, followed by 3 lb/A of MH (active ingredient) about one week later, and (2) topped at early flower stage and sprayed with 3 lb/A of MH. In all instances, both treatments were harvested at the same time, usually from 20-30 days after the MH was applied. Sucker control attained from the two series of treatments was equally good, ranging from 95 to 100 percent. The locations, years and yields of cured tobacco are shown in Table 1.

Table 1. Yields of Burley Tobacco from Field Tests Comparing FA + MH and MH Alone for Sucker Control.

YEAR	LOCATION	REPLICATIONS/SITE	TREATMENT	
			FA + MH	MH
LBS CURED LEAF PER ACRE				
1977	UKAES*	9	3099	3000
1978	UKAES	9	3180	3191
1978	UKAES	3	3182	3223
1979	SCOTT CO.	8	2628	2681
1979	UKAES	6	3602	3464
1979	UKAES	12	3129	3057
1980	UKAES	6	2923	2636
1981	UKAES	3	3234	3051
1981	LINCOLN CO.	3	2910	2800
1981	CLARK CO.	3	2547	2376
WEIGHTED AVERAGE YIELD			3062	2980

*UKAES (University of Kentucky Agriculture Experiment Station)

Results

The data for 62 observations were analyzed, using the t-test for paired comparisons. The difference in mean yield of 82 pounds per acre was significant at the 5 percent level of significance. The probability of obtaining an increase in yield would be high for the practice of topping early and using FA + MH for sucker control rather than later topping and using MH alone. However, yield increases should not be expected in every instance.

Use of FA and MH as two separate treatments when irregular flowering of burley occurs is discussed in the UK 1982 Tobacco Handbook which is available at all county agents' offices.

The manufacturer's directions for proper use of all approved sucker control chemicals should be followed.