

2011 Burley Tobacco Sucker Control Trial

MSU West Farm, Murray, KY

- **Objectives:**

- 1) Compare sucker control with standard and reduced rates of MH with Flupro applied with and without conveyor hoods.
- 2) Compare MH residues in burley tobacco where MH was applied with and without conveyor hoods.

- NC 7 LC burley tobacco transplanted June 14

- 40" rows, 32" plant spacing = 4900 plants/acre

- Topped August 17, harvested September 23

- Plots 4 rows, 40 ft. long, 4 replications

- All 4 rows treated, data collected from center 2 rows
- All applications made at 60 gal/A with and without conveyor

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MSU West Farm, Murray, KY - Treatments

Trt	Treatment	Rate (gal/A)	Application Method	Timing
1	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1.5 gal+0.5 gal	Standard 3-nozzle	1 wk pretop fb top fb 1 wk post top
2	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1.5 gal+0.5 gal	Standard with conveyor	1 wk pretop fb top fb 1 wk post top
3	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1 gal+0.5 gal	Standard 3-nozzle	1 wk pretop fb top fb 1 wk post top
4	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1 gal+0.5 gal	Standard with conveyor	1 wk pretop fb top fb 1 wk post top
5	1 OST	2 gal	Standard	1 wk pretop

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MSU West Farm, Murray, KY – Preharvest Sucker Control

Trt	Treatment	Rate (gal/A)	Application Method	% Sucker Control	#Plants w/ suckers/ 30	Sucker Wt (lbs)/10 plants
1	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1.5 gal+0.5 gal	Standard 3-nozzle	98 a	1 b	3.4 b
2	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1.5 gal+0.5 gal	Standard with conveyor	95 a	2 b	6.2 b
3	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1 gal+0.5 gal	Standard 3-nozzle	93 a	3 b	5.2 b
4	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1 gal+0.5 gal	Standard with conveyor	94 a	2 b	5.7 b
5	1 OST	2 gal	Standard	28 b	20 a	69.3 a

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MSU West Farm, Murray, KY – Burley Tobacco Yield

Trt	Treatment	Rate (gal/A)	Application Method	Flyings (lbs/A)	Cutters (lbs/A)	Leaf (lbs/A)	Tips (lbs/A)	Total (lbs/A)
1	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1.5 gal+0.5 gal	Standard 3-nozzle	268 c	447 ab	1506 a	398 ab	2620 a
2	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1.5 gal+0.5 gal	Standard with conveyor	288 bc	460 ab	1368 a	394 ab	2510 a
3	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1 gal+0.5 gal	Standard 3-nozzle	302 ab	508 a	1333 ab	406 ab	2548 a
4	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1 gal+0.5 gal	Standard with conveyor	322 a	491 a	1438 a	422 a	2672 a
5	1 OST	2 gal	Standard	293 abc	403 b	1103 b	343 b	2141 b

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MSU West Farm, Murray, KY – Burley Tobacco Quality Grade Index

Trt	Treatment	Rate (gal/A)	Application Method	Burley Quality Grade Index (0-100)
1	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1.5 gal+0.5 gal	Standard 3-nozzle	57.4 a
2	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1.5 gal+0.5 gal	Standard with conveyor	54.6 a
3	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1 gal+0.5 gal	Standard 3-nozzle	56.6 a
4	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1 gal+0.5 gal	Standard with conveyor	60.3 a
5	1 OST	2 gal	Standard	52.4 a

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MSU West Farm, Murray, KY – MH Cured Leaf Residues

Trt	Treatment	Rate (gal/A)	Application Method	Flyings ppm (range)	Cutters ppm (range)	Leaf ppm (range)	Tips ppm (range)
1	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1.5 gal+0.5 gal	Standard 3-nozzle	17.5 (BDL-24)	25.0 (BDL-52)	37.5 (28-56)	89.75 (51-122)
2	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1.5 gal+0.5 gal	Standard with conveyor	BDL	13.0 (BDL-22)	23.5 (BDL-39)	73.75 (62-84)
3	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1 gal+0.5 gal	Standard 3-nozzle	15.0 (BDL-30)	18.5 (BDL-43)	23.25 (BDL-46)	49.5 (33-62)
4	OST fb OST fb MH + Flupro	2 gal fb 2 gal fb 1 gal+0.5 gal	Standard with conveyor	12.5 (BDL-20)	17.0 (BDL-29)	10.0 (BDL-15)	26.0 (BDL-47)

*BDL = below detectable limit.

Summary

- Burley:

- Reducing MH application rates to 1 gal/A in combination with 0.5 gal local systemic can provide sucker control comparable to 1.5 gal/A MH in some seasons
- Sucker control from applications made with conveyor hoods was comparable to standard spray applications.
- Average total yield/A = 2588 lbs/A
- Burley quality grade index similar for all treatments

Summary

- Burley MH residues:

- MH residue reduced in leaf and tips with lower rate of 1 gal/A
 - Average 81.75 ppm in tips with 1.5 gal/A Royal MH-30
 - Average 37.75 ppm in tips with 1.0 gal/A Royal MH-30
- MH residue reduced in leaf and tips with use of conveyors
 - Average 69.63 ppm in tips with standard spray
 - Average 49.88 ppm in tips with conveyor