

Evaluation of Experimental A Insecticide in Burley Tobacco 2008 – MSU, Murray, KY

- Objectives of trial:
 - Evaluate tolerance of dark and burley tobacco to foliar applications of Experimental A insecticide at various rates
 - Evaluate control of *Lepidoptera* worm pests (budworm, hornworm) of tobacco by Experimental A insecticide.

2008 Experimental A Tobacco Trials

Burley Tobacco Trial – Murray, KY

- Burley tobacco trial: MSU West Farm, Murray, KY
- Burley variety: KT 206LC
- Transplanted June 10, 2008
 - 40” rows, 32” plant spacing (4900 plants/acre)
- 4 treatment applications made: 7/7, 7/24, 8/8, 8/27
- First application made at egg lay, later applications made just prior to threshold
- Hollow cone 10X nozzles directed toward rows, 15 gal/A
- Plot evaluations made following each application
 - 5 plot evaluations, budworm and hornworm present in burley trial
 - Crop phyto injury, worm damaged plants, actual worm counts
- RCBD with 4 replications
 - 2-row plots, 40-ft. long
- Air-cured burley tobacco: yield data collected

Treatments

Burley Tobacco Trial

Trt #	Treatment	Rate/Acre
1	Untreated Check	0
2	Experimental A	6 oz/A
3	Experimental A	9 oz/A
4	Experimental A	12 oz/A
5	Experimental A	24 oz/A
6	Local Standards: Orthene 97	0.77 lb/A
	Tracer SC	2 oz/A
	Dipel DF	1 lb/A

*Orthene 97 used as local standard in first 2 applications, Tracer in application 3, Dipel in application 4.

Burley Tobacco Trial: Plot Rating 1

July 14: 7 days after 1st application

Treatment (rate/A)	% of plants with worm damage
Untreated	3.94 b
Experimental A (6 oz/A)	10.18 ab
Experimental A (9 oz/A)	4.45 b
Experimental A (12 oz/A)	8.38 ab
Experimental A (24 oz/A)	9.53 ab
Orthene 97 (0.77 lb/A)	12.78 a

LSD _{0.05}	6.51
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Burley Tobacco Trial: Plot Rating 2

July 30: 6 days after 2nd application

Treatment (rate/A)	% Tobacco Injury (0-100%)	% of plants with worm damage	# Worms per plant
Untreated	0.00 c	14.93 a	0.0273 a
Exp. A (6 oz/A)	0.75 c	13.64 ab	0.0548 a
Exp. A (9 oz/A)	2.50 b	5.97 bc	0.0308 a
Exp. A (12 oz/A)	3.25 b	3.54 c	0.0250 a
Exp. A (24 oz/A)	11.00 a	7.49 abc	0.0288 a
Orthene 97 (0.77 lb/A)	0.00 c	4.01 c	0.0193 a
LSD _{0.05}	1.17	8.22	0.0558

Burley Tobacco Trial: Plot Rating 3

August 12: 4 days after 3rd application

Treatment (rate/A)	% Tobacco Injury (0-100%)	% of plants with worm damage	# Worms per plant
Untreated	0 b	30.59 a	0.0333 a
Exp. A (6 oz/A)	0 b	16.06 a	0.0168 a
Exp. A (9 oz/A)	0 b	18.89 a	0.0710 a
Exp. A (12 oz/A)	1.25 b	15.72 a	0.0438 a
Exp. A (24 oz/A)	3.25 a	17.89 a	0.0240 a
Tracer SC (2 oz/A)	0 b	13.59 a	0.0293 a
LSD _{0.05}	1.74	17.61	0.0634

Burley Tobacco Trial: Plot Rating 4

September 2: 6 days after 4th application

Treatment (rate/A)	% Tobacco Injury (0-100%)	% of plants with worm damage	# Worms per plant
Untreated	0 b	30.59 a	0.0333 a
Exp. A (6 oz/A)	0.25 b	16.06 a	0.0168 a
Exp. A (9 oz/A)	0 b	18.89 a	0.0710 a
Exp. A (12 oz/A)	2.0 ab	15.72 a	0.0438 a
Exp. A (24 oz/A)	3.75 a	17.89 a	0.0240 a
Dipel DF (1 lb/A)	0 b	13.59 a	0.0293 a
LSD _{0.05}	2.26	17.61	0.0634

Burley Tobacco Trial: Plot Rating 5

September 5: 9 days after 4th application

Treatment (rate/A)	% Tobacco Injury (0-100%)	% of plants with worm damage	# Worms per plant
Untreated	0 b	31.78 a	0.0120 a
Exp. A (6 oz/A)	0.25 b	16.06 ab	0.0168 a
Exp. A (9 oz/A)	0 b	20.28 ab	0.0140 a
Exp. A (12 oz/A)	1.25 b	16.76 ab	0.0105 a
Exp. A (24 oz/A)	3.75 a	17.89 ab	0.0000 a
Dipel DF (1 lb/A)	0 b	13.59 b	0.0000 a
LSD _{0.05}	2.18	17.73	0.0336

2008 Experimental A Tobacco Trials

Burley Tobacco – MSU, Murray, KY

Burley Tobacco Yield

