

Evaluation of Experimental A Insecticide in Dark Tobacco 2008 – UKREC, Princeton, 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.

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- Dark tobacco trial: Univ. of KY Res & Educ. Ctr, Princeton, KY
- Dark variety: PD 7302LC
- Transplanted June 2, 2008
 - 40” rows, 32” plant spacing (4900 plants/acre)
- 4 treatment applications made: 6/30, 7/14, 8/1, 8/26
- 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
 - 7 plot evaluations, hornworm predominant insect pest in dark trial
 - Crop phyto injury, worm damaged plants, actual worm counts
- RCBD with 4 replications
 - 2-row plots, 40-ft. long
- Fire-cured tobacco: yield and quality data collected

Treatments

Dark 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.

Dark Tobacco Trial: Plot Rating 1

July 14: 14 days after 1st application

Treatment (rate/A)	# Worm damaged plants per 30 plant plot	# Worms per plot
Untreated	3.0 a	0.25 a
Exp. A (6 oz/A)	1.25 a	0.00 a
Exp. A (9 oz/A)	1.25 a	0.00 a
Exp. A (12 oz/A)	2.25 a	0.00 a
Exp. A (24 oz/A)	1.75 a	0.25 a
Orthene 97 (0.77 lb/A)	1.25 a	0.25 a
LSD _{0.05}	1.80	0.57

Dark Tobacco Trial: Plot Rating 2

July 21: 7 days after 2nd application

Treatment (rate/A)	% Tobacco Injury (0-100%)	# Worm damaged plants per 30 plant plot	# Worms per plot
Untreated	0 b	3.5 a	1.0 a
Exp. A (6 oz/A)	0.25 b	0.75 b	0.25 a
Exp. A (9 oz/A)	1.0 b	1.25 b	0.25 a
Exp. A (12 oz/A)	2.75 a	2.0 ab	0.50 a
Exp. A (24 oz/A)	3.5 a	1.75 b	0.25 a
Orthene 97 (0.77 lb/A)	1.25 b	1.25 b	0.25 a
LSD _{0.05}	1.45	1.70	0.94

Dark Tobacco Trial: Plot Rating 3

August 1: 14 days after 2nd application

Treatment (rate/A)	% Tobacco Injury (0-100%)	# Worm damaged plants per 30 plant plot	# Worms per plot
Untreated	0 b	8.25 a	4.25 a
Exp. A (6 oz/A)	0 b	4.25 b	3.00 ab
Exp. A (9 oz/A)	0 b	2.5 b	2.25 ab
Exp. A (12 oz/A)	0 b	3.75 b	2.50 ab
Exp. A (24 oz/A)	1.25 a	1.75 b	0.75 b
Orthene 97 (0.77 lb/A)	0 b	4.25 b	3.50 ab
LSD _{0.05}	0.31	2.67	2.99

Dark Tobacco Trial: Plot Rating 4

August 5: 4 days after 3rd application

Treatment (rate/A)	# Worms per plot
Untreated	10.75 a
Experimental A (6 oz/A)	6.75 ab
Experimental A (9 oz/A)	5.5 b
Experimental A (12 oz/A)	3.5 bc
Experimental A (24 oz/A)	3.25 bc
Tracer SC (2 oz/A)	0.5 c
$LSD_{0.05}$	4.7

Dark Tobacco Trial: Plot Rating 5

August 22: 21 days after 3rd application

Treatment (rate/A)	% Tobacco Injury (0-100%)	# Worms per plot
Untreated	0 b	12.75 a
Exp. A (6 oz/A)	0 b	3.0 b
Exp. A (9 oz/A)	0 b	2.5 b
Exp. A (12 oz/A)	0 b	1.75 b
Exp. A (24 oz/A)	1.25 a	1.0 b
Orthene 97 (0.77 lb/A)	0 b	3.25 b
LSD _{0.05}	0.31	4.84

Dark Tobacco Trial: Plot Rating 6

September 3: 7 days after 4th application

Treatment (rate/A)	# Worms per plot
Untreated	6.75 a
Experimental A (6 oz/A)	0.50 b
Experimental A (9 oz/A)	0 b
Experimental A (12 oz/A)	0.25 b
Experimental A (24 oz/A)	0 b
Dipel DF (1 lb/A)	0 b
LSD_{0.05}	4.2

Dark Tobacco Trial: Plot Rating 7

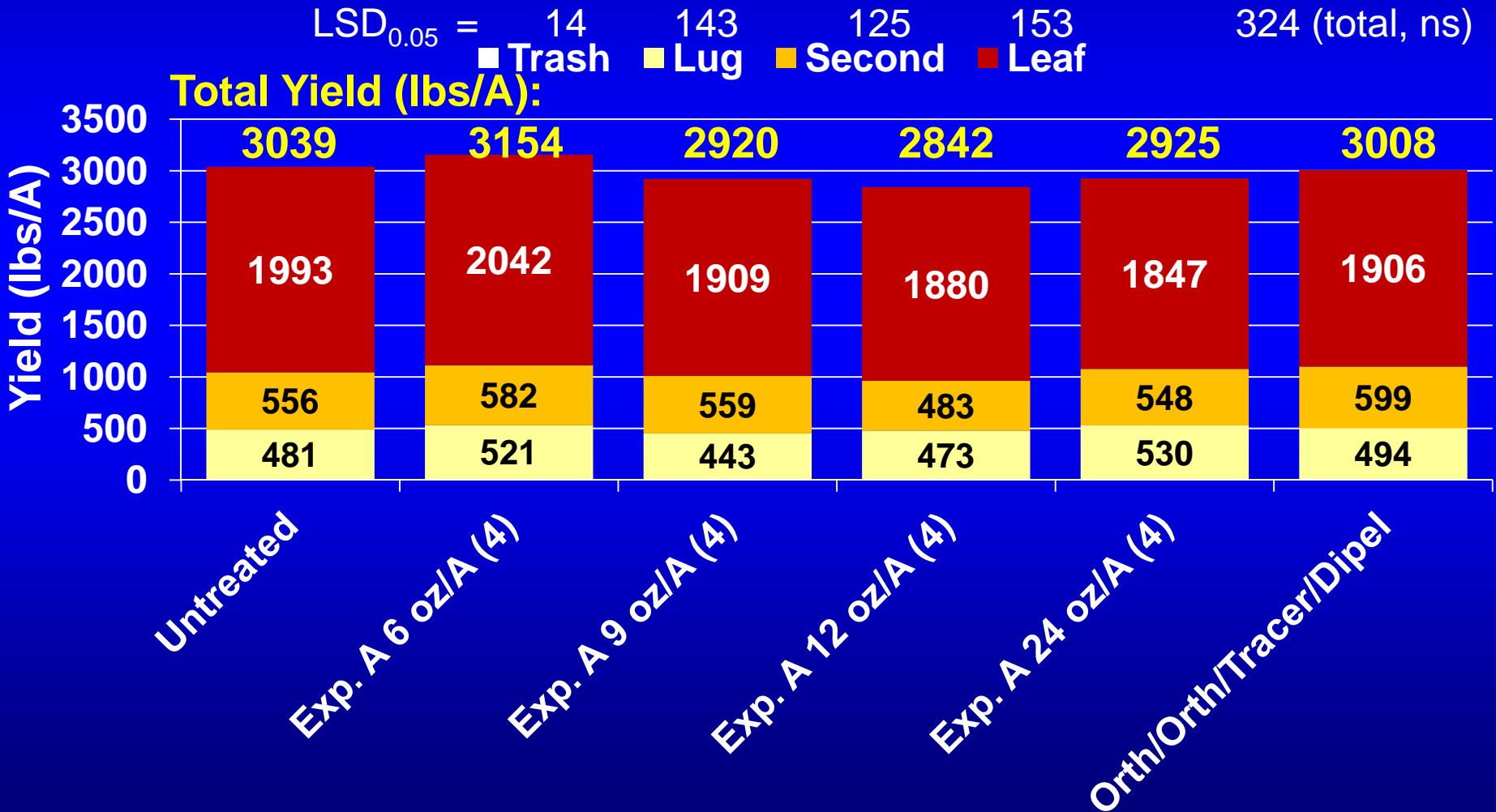
September 11: 14 days after 4th application

Treatment (rate/A)	# Worms per plot
Untreated	2.75 a
Experimental A (6 oz/A)	0 b
Experimental A (9 oz/A)	0 b
Experimental A (12 oz/A)	0 b
Experimental A (24 oz/A)	0 b
Dipel DF (1lb/A)	0 b
LSD_{0.05}	0.59

2008 Experimental A Tobacco Trials

Dark Tobacco – UKREC, Princeton, KY

Dark-Fired Tobacco Yield



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Dark-Fired Tobacco Quality Grade Index

