

TOBACCO INSECT CONTROL

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TOBACCO INSECT CONTROL IN THE PLANT BED

INSECT	PESTICIDE AND FORMULATION	AMOUNT PER 1000 SQ FT	MIXING AND APPLICATION	MIN DAYS PRIOR TO HANDLING
Aphids & Flea Beetles	Di-Syston 15G	10 oz	Apply granules broadcast at seeding or just after plant emergence and water thoroughly.	
	Orthene 97PE	3/4 tbsp	Mix spray using 3/4 tbsp per 1 gal water/1000 sq ft.	1
Cutworms	Orthene 97PE	3/4 tbsp	Mix spray using 3/4 tbsp per 1 gal water/1000 sq ft.	1
Slugs or Snails	Metaldehyde 5B	2 lb	Scatter around margins, walkways, and open spaces in beds.	

TOBACCO INSECT CONTROL IN GREENHOUSES

Acephate (ORTHENE 97PE) is labeled for use on tobacco in greenhouses to control cutworms, flea beetles, the green peach aphid, and the tobacco aphid, at a rate of 3/4 lb/A. Apply to foliage at the equivalent of 3/4 tbsp in 3 gal water/1000 sq ft of bed. Apply evenly to ensure thorough coverage. **NOTE:** Floatbed water should be disposed of in the transplanted field through the transplant water or through foliar spray.

Imidacloprid - ADMIRE PRO has replaced ADMIRE 2F. Both products have the same active ingredient (imidacloprid), However the ADMIRE PRO formulation is more concentrated, therefore the rates will be different. For aphids and flea beetles, it is labeled at 0.5 fl oz/1000 plants, and for mole crickets and wireworms, it is labeled at 0.6-1.2 fl oz/1000 plants. For tomato spotted wilt suppression, use 0.8-1.2 fl oz/1000 plants.

- ADMIRE 2F and generic brands are also labeled for use on tobacco as a drench to trays or flats prior to transplanting. These new generic brands include ADVISE, ALIAS, IMIDA E-AG, COURAZE, and NUPRID. An assessment of these products at the Pee Dee REC in 2007 suggests a similar effectiveness regarding insect control. For aphids and flea beetles, it is labeled at 1 fl oz/1000 plants, and for mole crickets and wireworms, it is labeled at 1.4-2.8 fl oz/1000 plants. Although this is a greenhouse application, it is for control of these insects in the field. For tomato spotted wilt suppression, use 1.8-2.8 fl oz/1000 plants.

Triamethoxam (PLATINUM 2 SC) is labeled for use on tobacco as a drench to trays or flats prior to transplanting. For aphids, flea beetles, and Japanese beetles, it is labeled at 0.8-1.3 fl. oz/1000 plants, and for wireworms, it is labeled at 1.3 fl oz/1000 plants. Although this is a greenhouse application, it is for control of these insects in the field.

An insecticidal soap, **M-Pede**, is also labeled for use on tobacco in the greenhouse. However, its effectiveness has not yet been established.

TOBACCO INSECT CONTROL IN THE FIELD

Note: Although endosulfan (Thiodan and other brands) is still labeled on tobacco in South Carolina, it is no longer included in our recommendations. Tobacco companies consider residues to be a serious problem.

INSECT	PESTICIDE AND FORMULATION	AMOUNT PER ACRE	MIXING AND APPLICATION	MIN. DAYS PRIOR TO HANDLING
WIREWORMS	Mocap 10 G or 6 EC	20 lb or 1 1/3 qt.	Broadcast granules with spreader or apply sprays evenly over area at least 7-10 days before transplanting and disc to mix 2-4 inches into soil.	
	Lorsban 15 G or 4 E	13.5 lb or 2 qt	Apply as preplant broadcast granules or a preplant broadcast spray in not less than 10 gal spray/A. Incorporate into soil 2-4 inches. CAUTION: Do NOT apply to foliage.	
	Furadan 4 F	1.5 gal	Apply preplant broadcast and incorporate. Note: May cause leaf flecking on lower leaves.	
	Admire Pro	0.6-1.2 fl oz/ 1000 plants	Apply as a drench to flats or trays prior to transplanting.	
	Admire Pro	0.8-1.2 fl oz/ 1000 plants	Apply in transplant water in a minimum of 100 gal/A.	
	Admire 2F and generic brands	1.4-2.8 fl oz/ 1000 plants	Apply as a drench to flats or trays prior to transplanting.	
	Admire 2F and generic brand	1.8-2.8 fl oz/ 1000 plants	Apply in-furrow or transplant water.	
	Platinum 2 SC	1.3 fl oz/ 1000 plants	Apply as a drench to flats or trays prior to transplanting, or in transplant water in a minimum of 100 gal/A.	
APHIDS	Orthene 97 PE	0.50 -0.75 lb	Apply in 20-40 gal spray/A for complete coverage or in transplant water in a minimum of 100 gal/A.	1
	Lannate 90 SP or 1.8 WS	0.5 lb or 1 qt	Apply in 20-40 gal spray/A for complete coverage.	5
	Di-Syston 15 G or 8 E	27 lb or 4 pt	Broadcast and incorporate before bedding or apply 6- to 12-inch band over the row and incorporate before planting.	
	Admire Pro	0.5 fl oz/ 1000 plants	Apply as a drench to flats or trays prior to transplanting.	
	Admire Pro	0.6 fl oz/ 1000 plants	Apply in transplant water in a minimum of 100 gal/A.	
	Admire 2F and generic brands	1.0 fl oz/ 1000 plants	Apply as a drench to flats or trays prior to transplanting.	
	Admire 2F and generic brand	1.4 fl oz/ 1000 plants	Apply in-furrow or transplant water.	
	Platinum 2 SC	0.8-1.3 fl oz/ 1000 plants	Apply as a drench to flats or trays prior to transplanting, or in transplant water in a minimum of 100 gal/A.	
	Provado 1.6 F	2-4 oz	Apply in 20-40 gal spray/A for complete coverage.	
	Actara	2-3 oz	Same as above.	1
	Fullfill 50 WG	2.75 oz	Same as above. Do not make more than two applications per season.	1

TOBACCO INSECT CONTROL IN THE FIELD (cont.)

INSECT	PESTICIDE AND FORMULATION	AMOUNT PER ACRE	MIXING AND APPLICATION	MIN. DAYS PRIOR TO HANDLING
FLEA BEETLES	Orthene 97 PE	0.5 - lb	Apply in 20-40 gal spray/A for complete coverage or in transplant water in a minimum of 100 gal/A.	1
	Sevin 80S 4F	1.25-2.5 lb 1-2 qt	Apply in 20-40 gal spray/A for complete coverage.	1
	Lannate 90 SP or 1.8 L	0.25-0.5 lb or 1-2 pt	Same as above.	5
	Furadan 4 F	1.0 gal	See under wireworms	
	Di-Syston 15 G or 8 E	27 lb or 4 pt	Broadcast and incorporate before bedding or apply 6- to 12-inch band over the row and incorporate before planting.	
	Admire Pro	0.5 fl oz/ 1000 plants	Apply as a drench to flats or trays prior to transplanting.	
	Admire Pro	0.6 fl oz/ 1000 plants	Apply in transplant water in a minimum of 100 gal/A.	
	Admire 2F and generic brands	1.0 fl oz/ 1000 plants	Apply as a drench to flats or trays prior to transplanting.	
	Admire 2F and generic brand	1.4 fl oz/ 1000 plants	Apply in-furrow or transplant water.	
	Platinum 2 SC	0.8-1.3 fl oz/ 1000 plants	Apply as a drench to flats or trays prior to transplanting, or in transplant water in a minimum of 100 gal/A.	
	Provado 1.6F	4 oz	Apply in 20-40 gal spray/A for complete coverage.	
	Actara	2-3 oz	Same as above.	1
BUDWORMS	Orthene 97 PE	0.75 lb	Spray directly to bud before flowering. Use full cone nozzles in 20-40 gal water/A at 60 psi. Proper spray timing and good coverage are essential for effective control. Avoid weekly schedules.	1
	Bacillus Thuringiensis*	(see label)	Same as above.	
	Lannate 90 SP or 1.8 L	0.5 lb or 1 qt	Same as above.	5
	Tracer	1.4-2.9 oz	Same as above.	3
	Denim 0.16 EC	8-12 oz	Same as above.	2
	Furadan 4 F	1.5 gal	See under wireworms.	
	CAUTION: Budworm control has been inconsistent ranging from poor to excellent. May cause leaf flecking on the lower leaves.			
Bacillus Thuringiensis	5-10 lb	Commercially prepared bait. Place small pinch in bud of each plant with a gloved hand or mechanical applicator.	Bait	

*Bt products labeled for use on tobacco in South Carolina include Dipel, Biobit, Thuricide, MVP, Lepinox and Agree.

TOBACCO INSECT CONTROL IN THE FIELD (cont.)

INSECT	PESTICIDE AND FORMULATION	AMOUNT PER ACRE	MIXING AND APPLICATION	MIN. DAYS PRIOR TO HANDLING
HORNWORMS	Orthene 97PE	0.5 lb	Apply in 20-40 gal spray/A for complete coverage.	1
	Bacillus Thuringiensis*	(see label)	Same as above	
	Lannate 90 SP or 1.8 L	0.25-0.5 lb or 1-2 pt	Same as above.	5
	Sevin 80S 4F	1.25-2.5 lb 1-2 qt	Same as above.	1
	Tracer	1.4-2.9 oz	Same as above.	3
	Denim 0.16 EC	8-12 oz	Same as above.	2
LOOPERS	Orthene 97 PE	0.75 lb	Apply 20-40 gal spray/A for complete coverage	1
	Bacillus Thuringiensis*	(see label)	Same as above.	
	Lannate 90 SP or 1.8 L	0.5 lb or 1 qt	Same as above.	5
	Tracer	1.4-2.9 oz	Same as above.	3
	Denim 0.16 EC	8-12 oz	Same as above.	2
GRASSHOPPERS	Malathion 57 EC	1.5 pt	Apply sprays in 20-40 gal spray/A for complete coverage. Early spraying around field borders aids in preventing infestations.	1
	Orthene 97PE	0.25-0.5 lb	Same as above.	1
STINK BUGS	Orthene 97PE	0.5-0.75 lb	Same as above.	1

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TOBACCO INSECT CONTROL IN THE FIELD (cont.)

INSECT	PESTICIDE AND FORMULATION	AMOUNT PER ACRE	MIXING AND APPLICATION	MIN. DAYS PRIOR TO HANDLING
JAPANESE BEETLES	Sevin 80S 4F	1.25-2.5 lb or 1-2 qt	Apply in 20-40 gal spray/A for complete coverage.	1-2
	Orthene 97PE	0.75 lb	Same as above.	1
	Actara	2-3 oz	Same as above.	1
	Platinum 2 SC	0.8-1.3 fl oz/ 1000 plants	Apply as a drench to flats or trays prior to transplanting, or in transplant water in a minimum of 100 gal/A.	
CUTWORMS	Lorsban 15G or 4E	14-20 lb or 2-3 qt	Apply as preplant broadcast granules or a preplant broadcast spray in not less than 10 gal spray/A. Incorporate into soil 2-4 inches. CAUTION: Do NOT apply to foliage.	
	Orthene 97PE	0.75 lb	Apply in 10-50 gal spray/A as needed.	1
VEGETABLE WEEVILS	Orthene 97PE	0.5-0.75 lb	Apply in 20-40 gal spray/A for complete coverage.	1

ON-FARM CONTROL OF TOBACCO MOTH AND CIGARETTE BEETLE

INSECTICIDE	DOSAGE	HOW, WHERE, AND WHEN TO APPLY
Heat treatment Tobacco moth and Cigarette beetle (all stages)	140°F	Hang in barn for a few hours. CAUTION: Tobacco must be thoroughly dried at temperature below 100°F before increasing temperature or color will change and result in decreased price.
Dichlorvos (Vapona) Resin strips Tobacco moth (moth only)	1 per 1,000 cu ft of space	Effective in reasonably tight storage facilities. Hang one resin strip per 1,000 cu ft of storage space. Replace if live moths are noticed.
Bacillus Thuringiensis* Tobacco moth (larvae only)	(see label)	Apply as a fine mist. Spray leaves in layers as tobacco is being sheeted, re-sheeted, or placed in a pile for storage. Good coverage is essential. CAUTION: Avoid excessive moisture.

*The only Bt product labeled for this use in South Carolina is Dipel.