

# Peanut Field Day: Select Insect Identification and Management Handout

## Thrips: Tobacco Thrips (*Franklinella fusca*)

Thrips can be found in almost every peanut field every year. While our main concern is the transmission of Tomato Spotted Wilt Virus (TSWV), injury from direct thrips feeding is most common and noticeable on seedlings between emergence and 30 days after planting. Planting after May 10, planting into residue, using twin-row planting, planting resistant cultivars, and using in-furrow insecticides are ways to reduce thrips injury and Tomato spotted wilt incidence.



## Management:

At planting applications of in-furrow insecticides are the best control options for thrips management and to reduce our risk of TSWV. Options include Admire Pro (Imidacloprid) and Thimet (Phorate). While these options will kill thrips, Thimet is the only option that reduces the risk of TSWV. Most fields treated with an in-furrow insecticide will not need a foliar application. However, if there is no at-plant insecticide, heavy thrips pressure, and other stresses, a foliar application of Acephate can be made within 14 days after planting.

## Lesser Corn Stalk Borer (LCB): (*Elasmopalpus lignosellus*)

LCBs favor hot, dry, well-drained sandy soils and an open canopy.

## Identification and Scouting:

Larvae have a dark head and can range from blueish green to reddish brown and move violently when disturbed. Adult moths are smaller compared to other foliage-feeding worms. When resting, moths hold their wings straight back along the body. The front wings of males are yellowish brown with a dark brown/purplish band, whereas females are all dark brown/purplish.

**NEED TO SCOUT!** The presence of moths flying is a good sign that LCBs may be in the field. Look for wilted stems, check stems for silk tubes, and pull up plants to check tap roots, pods, and stems for feeding/tunneling and larvae.

**Management:** Check **3ft of row** at 10 locations throughout the field. If you find LCBs, LCB damage, or silk tubes in **30%** of sports checked, it's time to spray. Chlorantraniliprole, which is the AI in **Vantacor** and **Besiege**, works well. Be careful with **Besiege** as it has a pyrethroid, and you risk flaring spider mites in non-irrigated peanuts. **Diamond**, a growth regulator, also works well for LCB. These products have good residual activity as well.



Mature LCB larvae



Young LCB larvae

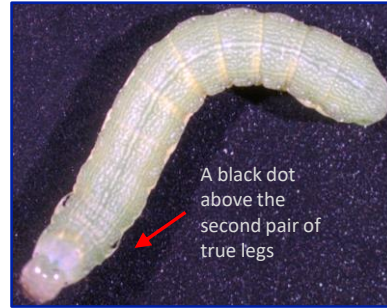
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## Foliage Feeding Caterpillars:

Various worm species feed on peanuts throughout the season, but the good thing is that we have thresholds for them. For all worms, the threshold is an average of 4-8 worms per foot of row. Use the lower end of the threshold when plants are young or stressed and the higher one when there is vigorous growth. Good scouting is accomplished by vigorously shaking peanut vines and foliage to dislodge the insects onto the ground or using a beat sheet. Sampling three feet of row at 10 locations in the field is sufficient for a typical 40–80-acre field. A good idea of the species and size of the caterpillars should be noted, as they will help with insecticide selection.

### Corn earworm/Bollworm

(*Helicoverpa zea*)  
Can be up to 1.75 in. Color variable: green, yellow, or orangish, unreliable for ID. 4-pairs of prolegs, skin coarse and covered with short black hairs.

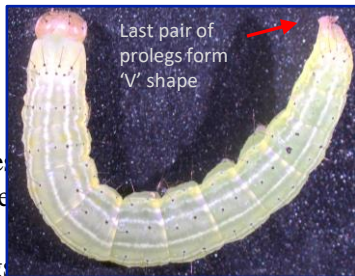


### Fall Armyworm:

(*Spodoptera frugiperda*)  
Up to 1.5 inches. Generally, gray, light brown or mottled green in color. Smooth skin with relatively few hairs. Distinct inverted 'Y' on the head capsule.

### Velvetbean Caterpillar:

(*Anticarsia gemmatilis*)  
Can be up to 2 in. Pale head capsule and body are typically green with yellow or white stripes down its length (VBC can also be black/brownish). Move violently when disturbed. 4 pairs of prolegs, last pair of prolegs project backward, forming a 'V' shape. Can be confused with soybean looper but soybean looper only has 2 pairs of prolegs. Voracious defoliators but relatively easy to kill.



### Beet Armyworm:

(*Spodoptera exigua*)  
Can be up to 1.75 in. Generally smooth in appearance and green with or without dark stripes running down the side of the body. Small black dot above the second pair of true legs.



### Southern Armyworm:

(*Spodoptera eridania*)  
Up to 1.35 in. Green or blackish green in appearance with a reddish-brown head capsule. White or yellow strip runs dorsally and along the sides of the body. Series of dark triangles are usually present along the length of the body.

### Rednecked Peanutworm:

(*Stegasta bosqueella*)  
Can be up to 0.25-0.3 in. White to cream color with reddish pro-and-meso thorax "neck". Larvae are usually found in folded terminal leaflets. Symmetrical holes on unfurled leaflets. Hard to find with beat sheets.



### Soybean Looper:

(*Chrysodeixis includens*)  
Up to 1.5 in. Green with faint white stripes. Body tapers toward the head. Distinctive 'loop' motion when moves. SBLs feed lower in the canopy. Can be missed if not scouted properly. Resistant to some insecticides

# Peanut Field Day: Insecticide Options for Peanut Insects

This is an abbreviated insecticide table. For the full version and more information, visit EDIS publication #ENY2101  
 “Insecticide & Mite Management in Florida Peanut”

Insect	MOA <sup>1</sup> code	Trade Name (Active Ingredient)	Rate Product/Acre	REI Hours	Days to Harvest	Remarks <sup>2</sup>
Thrips	1B	Orthene 97 (acephate)	6-12 oz	24 H	Digging 14 D	Can be used as a foliar if nothing is used at plant, especially if there is herbicide injury during the first 3 weeks of early season growth.
	4A	Admire Pro 4.6F (imidacloprid)	7-10.5 fl oz	12 H	4 D	Apply as an in-furrow spray at planting. Do not apply more than 10.5 oz/crop season. Do not apply to Virginia-type varieties.
	1B	Thimet 20 G (phorate)	5-7.5 lb	48 H		Apply in-furrow at planting. In-furrow applications for single rows use 5.5 oz of 20G/1000 ft of row. Do not exceed 7.5 lbs/A for twin rows. Soil moisture is necessary for adequate uptake. Young seedlings may exhibit varying degrees of leaf damage.
Lesser Cornstalk Borer	28	Vantacor 55C (chlorantraniliprole)	0.7 – 1.7 fl oz	4 H	1 D	Do not apply more than .2lb ai of chlorantraniliprole /acre/year.
Rednecked Peanut Worm	15	Diamond 0.83EC (novaluron)	6-12 fl oz	12H	28D	Do not apply more than 36 fl oz/A/season. Do not feed treated peanut hay or vines to livestock
	3A	Brigade 2EC (bifenthrin)	2.1-6.4 fl oz	12 H	14 D	Pyrethroid- can flare spider mites
Rednecked Peanut Worm Continued.	3A	Baythroid XL 1EC; Tombstone (beta-cyfluthrin)	1-1.8 fl oz	12 H	14 D	Pyrethroid- can flare spider mites
	3A	Asana XL 0.66EC (esfenvalerate)	2.9-5.8 oz	12H	21 D	Pyrethroid- can flare spider mites
Rednecked Peanut Worm Continued.	3A	Karate Z 2.08 (lambda-cyhalothrin)	0.96-1.6 oz	24 H	14 D	Pyrethroid- can flare spider mites
	3A+2 8	Besiege (lambda-cyhalothrin + chlorantraniliprole)	6-10 fl oz	14 H	7 D	Pyrethroid- can flare spider mites
	3A	Warrior II Zeon 2.08CS (lambda-cyhalothrin)	.96-1.6 fl oz	24 H		Pyrethroid- can flare spider mites
	3A	Mustang Maxx 0.8EC (zeta-cypermethrin)	1.76-4 fl oz	12 H	7 D	Pyrethroid- can flare spider mites

Insect	MOA <sup>1</sup> code	Trade Name (Active Ingredient)	Rate Product/Acre	REI Hours	Days to Harvest	Remarks <sup>2</sup>
Corn Earworm	3A	Brigade 2EC* (bifenthrin)	2.1-6.4 fl oz	12H	14 D	Pyrethroid- can flare spider mites
	28	Vantacor 55C (chlorantraniliprole)	1.2-2.5 fl oz	4 H	1 D	Do not apply more than .2lb ai of chlorantraniliprole /acre/year.
	3A	Baythroid XL 1EC; Tombstone (beta-cyfluthrin)	1.8-2.4 fl oz	12 H	14 D	Pyrethroid- can flare spider mites
	3A	Asana XL (esfenvalerate)	2.9-5.8 oz	12 H	21 D	Pyrethroid- can flare spider mites
	3A	Danitol 2.4EC (fenpropathrin)	10.66-16 fl oz	24 H	Digging 14 D	Pyrethroid- can flare spider mites
	3A	Karate Z 2.08 (lambda-cyhalothrin)	1.28-1.92 oz	24 H	14 D	Pyrethroid- can flare spider mites
	3A	Warrior II Zeon 2.08CS (lambda-cyhalothrin)	1.28-1.92 fl oz	24 H	14 D	Pyrethroid- can flare spider mites
	3A+2 8	Besiege (lambda-cyhalothrin + chlorantraniliprole)	10 fl oz	14 H	7 D	Pyrethroid- can flare spider mites
	1A	Lannate 2.4LV Lannate 90SP (methomyl)	0.75-3 pt 0.25-1 lb	48 H	21 D	Do not make more than 3 applications. Do not feed treated vines to livestock.
	5	Radiant 15C (spinetoram)	3-8 fl oz	4 H	3 D	Do not apply more than 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.
Beet Armyworm	3A	Mustang Maxx 0.8EC (zeta-cypermethrin)	3.2-4 oz	12 H	7 D	Pyrethroid- can flare spider mites
	3A	Brigade 2EC* (bifenthrin)	2.1-6.4 fl oz	12 H	14 D	Pyrethroid- can flare spider mites.
	28	Vantacor 55C** (chlorantraniliprole)	1.2-2.5 fl oz	4 H	1 D	Do not apply more than .2lb ai of chlorantraniliprole /acre/year.
	15	Dimilin 2L (diflubenzuron)	4-8 fl oz	12 H	28 D	Do not make more than 3 applications/season.
	22	Steward 1.25EC (indoxacarb)	9.2-11.3 fl oz	12 H	14 D	Do not apply more than 45 fl oz/A/season. Minimum interval between treatments is 5 days.
	3A+2 8	Besiege** (lambda-cyhalothrin + chlorantraniliprole)	6-10 fl oz	14 H	7 D	Pyrethroid- can flare spider mites.
	1A	Lannate 2.4LV Lannate 90SP (methomyl)	1.25-3 pt 0.25-1 lb	48 H	21 D	Do not make more than 3 applications. Do not feed treated vines to livestock.
	18	Intrepid 2F (methoxyfenozide)	6-10 fl oz	4 H	7 D	
	15	Diamond .083EC (novaluron)	6-12 fl oz	12 H	28 D	Do not apply more than 36 fl oz/A/season. Do not feed treated peanut hay or vines to livestock
	5	Radiant 15C (spinetoram)	3-8 fl oz	4 H	3 D	Do not apply more than 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.

## Notes:

Thrips: Everything is done at planting, if you have a history of thrips issues and TSWV, Thimet is highly recommended as it is the only product that lowers TSWV incidence.

LCBs: Both products here work well for lessers, Diamond is a growth regulator so you will not see effects as quickly as you would with Vantacor or Besiege. It would just depend on what your population looks like. Besiege is an option as well **BUT** it contains a **pyrethroid** and you run the risk of flaring spider mites in unirrigated peanut which is most susceptible to lesser, caution is advised with this product.

# Peanut Field Day: Insecticide Options for Peanut Insects

This is an abbreviated insecticide table. For the full version and more information, visit EDIS publication #ENY2101

“Insecticide & Mite Management in Florida Peanut”

Insect	MOA <sup>1</sup> code	Trade Name (Active Ingredient)	Rate Product/Acre	REI Hours	Days to Harvest	Remarks <sup>2</sup>	Insect	MOA <sup>1</sup> code	Trade Name (Active Ingredient)	Rate Product/Acre	REI Hours	Days to Harvest	Remarks <sup>2</sup>	
Fall Armyworm	1B	<b>Orthene 97</b> (acephate)	12-16 oz	24 H	Digging 14 D		Cutworm	3A	<b>Brigade 2EC</b> (bifenthrin)	2.1-6.4 fl oz	12 H	14 D	Pyrethroid- can flare spider mites	
	3A	<b>Brigade 2EC*</b> (bifenthrin)	2.1-6.4 fl oz	12 H	14 D	Pyrethroid- can flare spider mites		3A	<b>Baythroid XL 1EC; Tombstone</b> (beta-cyfluthrin)	1-1.8 fl oz	12 H	14 D	Pyrethroid- can flare spider mites	
	28	<b>Vantacor 55C</b> (chlorantraniliprole)	1.2-2.5 fl oz	4H	1 D	Do not apply more than 0.2 lb ai of chlorantraniliprole/A/year		3A	<b>Asana XL 0.66EC</b> (esfenvalerate)	9.6 oz	12 H	21 D	Pyrethroid- can flare spider mites	
	3A	<b>Baythroid XL 1EC; Tombstone</b> (beta-cyfluthrin)	2.4-2.8 fl oz	12H	14 D	Pyrethroid- can flare spider mites		22	<b>Steward 1.25EC</b> (indoxacarb)	9.2-11.3 fl oz	12 H	14 D	Do not apply more than 45 fl oz/A/season. Minimum interval between treatments is 5 days.	
	15	<b>Dimilin 2L</b> (diflubenzuron)	4-8 fl oz	12 H	28 D	Do not make more than 3 applications/season.		3A	<b>Karate Z 2.08</b> (lambda-cyhalothrin)	1.28-1.92 oz	24 H	14 D	Pyrethroid- can flare spider mites	
	3A	<b>Danitol 2.4EC</b> (fenpropathrin)	10.66-16 fl oz	24 H	Digging 14 D	Pyrethroid- can flare spider mites		3A	<b>Warrior II Zeon 2.08CS</b> (lambda-cyhalothrin)	1.28-1.92 fl oz	24 H	14 D	Pyrethroid- can flare spider mites	
	22	<b>Steward 1.25EC</b> (indoxacarb)	9.2-11.3 fl oz	12 H	14 D	Do not apply more than 45 fl oz/A/season. Minimum interval between treatments is 5 days.		1A	<b>Lannate 2.4LV Lannate 90SP</b> (methomyl)	1.5-3 pt 0.5-1 lb	48 H	21 D	Spray late in the afternoon for maximum efficacy. Do not feed treated vines to livestock	
	3A	<b>Karate Z 2.08</b> (lambda-cyhalothrin)	1.28-1.92 oz	24 H	14 D	Pyrethroid- can flare spider mites		3A	<b>Mustang Maxx 0.8EC</b> (zeta-cypermethrin)	1.28-4 oz	12 H	7 D	Pyrethroid- can flare spider mites	
	3A+2	<b>Besiege</b> (lambda-cyhalothrin + chlorantraniliprole)	6-10 fl oz	14 H	7 D	Pyrethroid- can flare spider mites		Tobacco budworm	28	<b>Vantacor 55C</b> (chlorantraniliprole)	1.7-2.5 fl oz	4 H	1 D	Do not apply more than 0.2 lb ai of chlorantraniliprole/A/year.
	8	<b>Lannate 2.4LV Lannate 90SP</b> (methomyl)	0.75-1.5 pt 0.25-0.5 lb	48 H	21 D	Do not feed treated vines to livestock			22	<b>Steward 1.25EC</b> (indoxacarb)	9.2- 11.3 fl oz	12 H	14 D	Do not apply more than 45 fl oz/A/season. Minimum interval between treatments is 5 days.
15	<b>Diamond .083EC</b> (novaluron)	6-12 fl oz	12 H	28 D	Do not apply more than 36 fl oz/A/season. Do not feed treated peanut hay or vines to livestock	5	<b>Radiant 15C</b> (spinetoram)		3-8 fl oz	4 H	3 D	Do not apply more than 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.		
Southern Armyworm	5	<b>Radiant 15C</b> (spinetoram)	3-8 fl oz	4 H	3 D	Do not apply more than 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.	Soybean Looper	28	<b>Vantacor 55C</b> (chlorantraniliprole)	1.7-2.5 fl oz	4 H	1 D	Do not apply more than 0.2 lb ai of chlorantraniliprole/A/year.	
	5	<b>Radiant 15C</b> (spinetoram)	3-8 fl oz	4 H	3 D	Do not apply more than 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.		22	<b>Steward 1.25EC</b> (indoxacarb)	9.2-11.3 fl oz	12 H	14 D	Do not apply more than 45 fl oz/A/season. Minimum interval between treatments is 5 days	
Soybean Looper	28	<b>Vantacor 55C</b> (chlorantraniliprole)	1.7-2.5 fl oz	4 H	1 D	Do not apply more than 0.2 lb ai of chlorantraniliprole/A/year.	18	<b>Intrepid Edge</b> (spinetoram + methoxyfenozide)	1.7-3.3 oz	4 H	7 D			
	22	<b>Steward 1.25EC</b> (indoxacarb)	9.2-11.3 fl oz	12 H	14 D	Do not apply more than 45 fl oz/A/season. Minimum interval between treatments is 5 days	28	<b>Vantacor 55C</b> (chlorantraniliprole)	1.7-2.5 fl oz	4 H	1 D	Do not apply more than 0.2 lb ai of chlorantraniliprole/A/year.		
	18	<b>Intrepid 2F</b> (methoxyfenozide)	6-10 fl oz	4 H	7 D	Do not make more than 3 applications/year.	22	<b>Steward 1.25EC</b> (indoxacarb)	9.2-11.3 fl oz	12 H	14 D	Do not apply more than 45 fl oz/A/season. Minimum interval between treatments is 5 days		
	15	<b>Diamond 0.83 EC</b> (novaluron)	6-12 fl oz	12H	28 D	Do not feed treated peanut hay or vines to livestock.	18	<b>Intrepid 2F</b> (methoxyfenozide)	6-10 fl oz	4 H	7 D	Do not make more than 3 applications/year.		
	5	<b>Radiant 15C</b> (spinetoram)	3-8 fl oz	4H	3 D	Do not apply more than 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.	15	<b>Diamond 0.83 EC</b> (novaluron)	6-12 fl oz	12H	28 D	Do not feed treated peanut hay or vines to livestock.		
						5	<b>Radiant 15C</b> (spinetoram)	3-8 fl oz	4H	3 D	Do not apply more than 24 fl oz of Radiant SC (0.188 lb ai spinetoram)/A/year. Do not allow grazing of peanut hay.			

## Notes:

\*Populations of Fall, southern, and beet armyworms, corn earworms, and tobacco budworms from the panhandle have been shown to be less susceptible to bifenthrin than *lab-reared* populations. Caution is advised when with this product for the specified pests.

\*\*Populations of beet armyworm from the panhandle have shown to be less susceptible to chlorantraniliprole than lab-reared populations. Caution is advised with this product when this species is the dominant one.