Crops - Commercial

Cotton

Cotton – Pre-bloom

Table 1. Bollworm/tobacco budworm

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold/Remarks
indoxacarb Steward (1.25EC)	11.3 ounces	0.11	11.5	• Non-Bt and BG2 cotton varieties: Treat when population ≥ 8 larvae (any size) per 100 plants or 6% fruit injury of any kind. • WideStrike 3, TwinLink Plus, and BG3 cotton varieties: Treat when population ≥ 8 larvae (¼ inch) per 100 plants or 6% fruit injury of any kind. • Premix insecticides are available for this pest. See premix table.
spinosad Blackhawk (0.36WG)	2.4-3.2 ounces	0.054-0.072	6.7-5.0	
chlorantraniliprole Vantacor (5SC)	1.2-2.5 ounces	0.047-0.098	106.7-51.2	
Spinotoram (Radiant 1SC)	2.5-8.0 ounces	0.22-0.0625	45.7-16	

Table 2. Cutworms

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold/Remarks
esfenvalerate Asana XL (0.66EC)	5.8 ounces	0.03	22	• Treat when loss of satisfactory stand is threatened or in minimum tillage environment. • Premix insecticides are available for this pest. See premix table.
beta-cyfluthrin Baythroid XL (1EC)	0.8 ounce	0.007	160	
bifenthrin Brigade (2EC)	2.6-6.4 ounces	0.04-0.10	20.0-50.0	
cyfluthrin Tombstone (2EC)	0.8 ounce	0.013	154	
lambda-cyhalothrin Warrior II (2.08CS)	0.9-1.3 ounces	0.015-0.02	142.0-98.0	
z-cypermethrin Mustang Max (0.8EC)	1.3-2.8 ounces	0.01-0.017	80.0-47.0	
gamma-cyhalothrin Declare (1.25CS)	0.77-1.02 ounces	0.0075-0.01	166.0-125.0	
a-cypermethrin Fastac (0.83EC)	1.3-1.9 ounce	0.008-0.012	80.0-67.0	

Table 3. Plant bugs

Tarnished, clouded, cotton fleahopper

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold/Remarks
flonicamid Carbine (50WG)	2.3-2.8 ounces	0.072-0.089	7.0-8.0	• Treat when 8 to 15 of these pests per 100 sweeps are found. • Adjust pre-bloom treatment levels to maintain between 70% and 85% first position square retention. • Control of cotton fleahoppers can usually be obtained with lower rates than the rates used to control other plant bug pests. • Multiply clouded plant bug number by 1.5 when determining densities for treatment decision. • Premix insecticides are available for this pest. See premix table. NOTE: Diamond will not control adults. For adult control, tank mix with an adulticide. Repeat applications at 7- to 14-day intervals as needed to maintain control.
thiamethoxam Centric (40WG)	2.5-3.0 ounces	0.0625-0.075	6.4-5.3	
imidacloprid Admire Pro (4.6SC)	1.7 ounces	0.062	75.0	
imidacloprid (2SC)	4.0 ounces	0.062	32.0	
imidacloprid (4SC)	2.0 ounces	0.063	64	
acetamiprid Strafer Max (70WP)	1.7-2.3 ounces	0.075-0.10	9.4-7.0	
sulfoxaflor Transform (50WG)	1.5-2.25 ounces	0.047-0.071	10.7-7.1	
isocycloseram Vertento (3.33SC)	1.6-2.0 ounces	0.041-0.052	80.0-64.0	
clothianidin Belay (2.13SC)	3.0-6.0 ounces	0.05-0.1	42.7-21.0	
oxamyl Vydate (3.77 C-LV)	11.2-17.0 ounces	0.33-0.50	11.4-7.5	
novaluron Diamond (0.83EC)	6.0-12.0 ounces	0.039-0.078	21.3-10.6	

Table 4. Spider Mites

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold / Remarks
abamectin Agri-Mek (0.15EC)	8.0-16.0 ounces	0.009-0.0187	16.0-8.0	• Treat when mite infestations cause areas where plants have discolored leaves. • Anticipate repeating applications in 5 days. • Premix insecticides are available for this pest. See premix table.
fenpyroximate Portal (0.4EC)	16.0-32.0 ounces	0.05-0.10	8.0-4.0	
spiromesifen Oberon (4SC)	4.0-8.0 ounces	0.0625-0.125	32.0-16.0	
etoxazole Zeal (72WSP)	0.66-1.0 ounces	0.030-0.045	28.0-16.0	
abamectin Agri-Mek SC (0.7SC)	1.75-3.5 ounces	0.009-0.019	73.1-36.6	
isocycloseram Vertento (3.33SC)	1.1-2.0 ounces	0.028-0.052	116.4-64.0	

Table 5. Thrips - Seed Treatment

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold / Remarks
acephate Orthene (90)	6.4 ounce/100 wt	See label.	See label.	Seed Treatment • Foliar insecticides may still be needed to maintain adequate thrips control on cotton with a seed treatment. • Use Acephate With Caution: Pockets of acephate-resistant thrips have been detected in portions of Louisiana.
Imidacloprid Gaucho Grande (600)	0.375 mg AI/seed	See label.	See label.	
Avicta Elite	Commercial pre-treatment of imidacloprid + thiamethoxam	See label.	See label.	
Aeris	Commercial pre-treatment of imidacloprid+ thiodicarb	See label.	See label.	

Table 6. Thrips - At Planting

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold / Remarks
acephate Orthene (90SP)	1.1 pound	1	See label.	At planting in-furrow • Use Acephate With Caution: Pockets of acephate-resistant thrips have been detected in portions of Louisiana. • Premix insecticides are available for this pest. See premix table.
aldicarb AgLogic (15G)	3.3-5.0 pounds	0.5-0.75	See label.	
imidacloprid Admire Pro (4.6SC)	7.4-9.2 ounces	0.26-0.33	See label.	
Imidacloprid (4SC)	8.5-10.6 ounces	0.25-0.33	See label.	
Imidacloprid (2SC)	17.0-21.1 ounces	0.25-0.33	See label.	

Table 7. Thrips - Foliar Spray

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold / Remarks
acephate Orthene (90SP)	3.2 ounces	0.18	5	Foliar Spray • Use Acephate With Caution: Pockets of acephate-resistant thrips have been detected in portions of Louisiana. • Treat when immature thrips first appear on seedling cotton before the fourth true leaf. Do not apply acephate/Orthene if spider mites are present. • Spray is not necessary when utilizing ThryvOn cotton. • Premix insecticides are available for this pest. See premix table
acephate Orthene (97SP)	3.0 ounces	0.18	5.3	
isocycloseram Vertento (3.33SC)	1.1-2.0	0.028-0.052	116.4-64.0	
dicrotophos Bidrin (8E)	3.2 ounces	0.2	40	
dimethoate Dimethoate (4EC)	6.4 ounces	0.2	20	
spinetoram Radiant (1SC)	1.5-3.0 ounces	0.01-0.02	85.0-42.7	

Cotton – Bloom to Harvest

Table 8. Beet armyworms

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold/Remarks
methoxyfenozide Intrepid (2F)	6.0-10.0 ounces	0.09-0.16	21.0-12.5	• Treat when larvae are small and five to six hatch out spots (hits) are observed per 300-row feet. • Premix insecticides are available for this pest. See premix table.
indoxacarb Steward (1.25EC)	11.3 ounces	0.11	11.5	
spinosad Blackhawk (0.36WG)	2.4-3.2 ounces	0.054-0.072	6.7-5.0	
chlorantraniliprole Vantacor (5SC)	1.2-2.5 ounces			
bifenthrin, chlorantraniliprole Elevest (SC)	5.6-9.6 ounces	premix	22.8-13.3	

Table 9. Bollworm/tobacco budworm

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold/Remarks
spinetoram Radiant (1SC)	2.8-8.0 ounces	0.022-0.0625	46-16	• Non-Bt and BG2 varieties: Treat when you find 20 eggs per 100 plants or 6% fruit injury of any kind. Regardless of the size of larvae, treatment may be warranted if damaged-boll counts exceed 2% and significant numbers of larvae are present and continuing to cause damage. • WideStrike 3, TwinLink Plus, and BG3 cotton varieties: Treat when larvae 1/8-inch or longer exceed four larvae per 100 plants or 6% fruit injury of any kind. Regardless of the size of the larvae, treatment may be warranted if damaged-boll counts exceed 2% and significant numbers of larvae are present and continuing to cause damage. • Use Pyrethroids With Caution: Pyrethroid resistance is prevalent in bollworms in Louisiana. • Premix insecticides are available for this pest. See premix table.
indoxacarb Steward (1.25EC)	11.3 ounces	0.11	11.5	
spinosad Blackhawk (0.36WG)	2.4-3.2 ounces	0.054-0.072	6.7-5.0	
chlorantraniliprole Vantacor (5SC)	1.2-2.5 ounces	0.047-0.098	106.7-51.2	
bifenthrin, chlorantraniliprole Elevest (SC)	5.6-9.6 ounces	premix	22.8-13.3	

Table 10. Brown stink bugs

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold/Remarks
acephate Orthene (90SP)	0.8 pound	0.72	1.25	• Treat stink bugs when 1 adult/nymph is found per 6 row feet, 5% adults/nymphs are found in sweep nets, or 15% to 20% of 12- to 16-day old bolls have internal injury. • Premix insecticides are available for this pest. See premix table.
dicrotophos Bidrin (8EC)	6.0-8.0 ounces	0.33-0.5	24.0-16.0	
oxamyl Vydate (3.77C-LV)	17.0 ounces	0.5	7.5	
isocycloseram Vertento (3.33SC)	1.6-2.0 ounces	0.041-0.052	80.0-64.0	

Table 11. Cotton aphid

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold / Remarks
flonicamid Carbine (50WG)	1.4-2.8 ounces	0.044-0.089	11.4-5.7	• Treat when honeydew, leaf crinkling, and stunting begin to occur uniformly.
sulfoxaflor Transform (50WG)	0.75-1.0 ounce	0.023-0.031	21.3-16.0	
acetamiprid Strafer Max (70WP)	1.1 ounce	0.05	14.5	
afidopyropen Sefina (0.42SC)	3.0 ounces	0.01	42.7	
pyrifluquinazon PQZ (1.87SC)	2.4-3.2 ounces	0.035-0.047	53.3-40	

Table 12. Fall armyworms

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold/Remarks
novaluron Diamond (0.83EC)	6.0-12.0 ounces	0.039-0.077	21.3-10.6	• Treat when egg masses or small larvae appear. • Premix insecticides are available for this pest. See premix table.
methoxyfenozide Intrepid (2F)	6.0-10.0 ounces	0.09-0.16	21.0-12.5	
spinosad Blackhawk (0.36WG)	2.4-3.2 ounces	0.054-0.072	6.7-5.0	
chlorantraniliprole Vantacor (5SC)	1.2-2.5 ounces	0.047-0.098	106.7-51.2	
bifenthrin, chlorantraniliprole Elevest (SC)	5.6-9.6 ounces	premix	22.8-13.3	

Table 13. Green stink bugs

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold/Remarks
acephate Orthene (90SP)	0.8 pound	0.72	1.25	• Treat stink bugs when 1 adult/nymph is found per 6 row feet, 5% adults/nymphs are found in sweep nets, or 15% to 20% of 12- to 16-day old bolls have internal injury. • Stink bug populations normally are very clumped in fields; thus, numerous samples may be required to assess infestation. • Premix insecticides are available for this pest. See premix table.
beta-cyfluthrin Baythroid XL (1EC)	1.6-2.6 ounces	0.0125-0.02	80.0-50.0	
dicrotophos Bidrin (8EC)	4.0-8.0 ounce	0.25-0.5	32.0-16.0	
bifenthrin Brigade (2EC)	2.6-6.4 ounces	0.04-0.1	50.0-20.0	
cyfluthrin Tombstone (2EC)	1.6-2.6 ounces	0.025-0.041	80.0-50.0	
lambda-cyhalothrin Warrior II (2.08CS)	1.6-2.56 ounces	0.025-0.04	80.0-50.0	
z-cypermethrin Mustang Max (0.8EC)	2.6-3.6 ounces	0.017-0.022	47.0-36.0	
a-cypermethrin Fastac (0.83EC)	2.6-3.6 ounces	0.017-0.023	49.0-36.0	
gamma-cyhalothrin Declare (1.25CS)	1.28-2.05 ounces	0.0125-0.02	100.0-62.5	
acephate Orthene (97SP)	0.75 pound	0.72	1.29	
oxamyl Vydate (3.77CLV)	11.2-17.0 ounces	0.33-0.5	11.4-7.5	
isocycloseram Vertento (3.33SC)	1.6-2.0 ounces	0.041-0.052	80.0-64.0	

Table 14. Loopers

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold/Remarks
methoxyfenozide Intrepid (2F)	6.0-10.0 ounces	0.09-0.16	21.0-12.5	• Before cutout, treat when loopers cause 30% defoliation. After cutout treat at 45% defoliation. • Premix insecticides are available for this pest. See premix table.
indoxacarb Steward (1.25EC)	9.2 ounces	0.09	14	
spinosad Blackhawk (0.36WG)	2.4-3.2 ounces	0.054-0.072	6.7-5.0	
chlorantraniliprole Vantacor (5SC)	1.7-2.5 ounces	0.066-0.098	75.3-51.2	
bifenthrin, chlorantraniliprole Elevest (SC)	5.6-9.6 ounces	premix	22.8-13.3	

Table 15. Plant bug (tarnished, clouded)

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold/Remarks
acephate Orthene (90SP)	0.55-1.1 pound	0.5-1.0	1.8-0.9	• After first flower, treat at 3 tarnished plant bugs per black drop cloth, 15 tarnished plant bugs per 100 sweep net samples, or 10% dirty squares. • NOTE: Diamond will not control adults. For adult control, tank-mix with an adulticide. Repeat applications at 7- to 14-day intervals as needed to maintain control. • Multiply clouded plant bug number by 1.5 when determining densities for treatment decision. • Premix insecticides are available for this pest. See premix table.
acephate Orthene (97SP)	0.8-1.0 pound	0.75-0.97	1.3-1.0	
dicrotophos Bidrin (8E)	6.0-8.0 ounces	0.33–0.5	24.0-16.0	
novaluron Diamond (0.83EC)	6.0-12.0 ounces	0.039–0.078	21.3-10.67	
sulfoxaflor Transform (50WG)	1.5-2.25 ounces	0.047-0.071	10.7-7.1	
isocycloseram Vertento (3.33SC)	1.6-2.0 ounces	0.041-0.052	80.0-64.0	
oxamyl Vydate (3.77CLV)	11.2-17.0 ounces	0.33-0.5	11.4-7.5	
thiamethoxam Centric (40WG)	2.5-3.0 ounces	0.0625-0.075	6.4-5.3	
flonicamid Carbine (50WG)	2.8 ounces	0.089	5.7	

Table 16. Spider Mites

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold / Remarks
abamectin Agri-mek (0.15SC)	8.0-16.0 ounces	0.009-0.0187	16.0-8.0	• Treat when mite infestations cause areas where plants have discolored leaves. Anticipate repeating applications in five days. • Use Abamectin With Caution: Abamectin resistance in two-spotted spider mites has been detected in Louisiana. • Premix insecticides are available for this pest. See premix table.
propargite Comite II (6.0EC)	24.0-36.0 ounces	1.1-1.7	5.3-3.5	
fenpyroximate Portal (0.4EC)	16.0-32.0 ounces	0.05-0.10	8.0-4.0	
spiromesifen Oberon (4SC)	4.0-8.0 ounces	0.0625-0.125	32.0-16.0	
etoxazole Zeal (72WP)	0.66-1.0 ounces	0.03–0.045	28.0-16.0	
abamectin Agri-Mek (0.7SC)	1.75-3.5 ounces	0.009-0.019	73.1-36.6	
isocycloseram Vertento (3.33SC)	1.1-2.0	0.028-0.052	116.4-64.0	

Table 17. Whitefly

Insecticide	Amount of Concentrate per Acre	Pounds Active Ingredient per Acre	Acres Treated per Gallon or Pound SP	Treatment Threshold / Remarks
acephate Orthene (90SP)	0.83-1.0 pound	0.75-0.9	1.2-1.0	Apply when 50% of plant terminals have clustering whiteflies. Control may require 3-4 applications at 5-day intervals.
thiamethoxam Centric (40WG)	2.0 ounces	0.05	8	
acetamiprid Strafer Max (70WP)	1.7-2.3 ounces	0.075-0.1	9.4-7.0	
acephate Orthene (97SP)	0.8-1.0 pound	0.75-0.97	1.3-1.0	
spiromesifen Oberon (4SC)	4.0-8.0 ounces	.0625-0.125	32.0-16.0	

Cotton – Premix Insecticide Products

The following products are available as premixes of two or more insecticides.

Trade Name (Insecticides)	Amount of Concentrate per Acre	Acres Treated per Gallon or Pound SP	Primary Target Pests (See label for other pests that may be controlled)
Athena (bifenthrin, abamectin)	10.0-17.0 ounces	12.8-7.5	Spider mites
Besiege (chlorantraniliprole, lambda-cyhalothrin)	6.5-12.5 ounces	19.7-10.2	Most caterpillar pests, stink bugs
Bidrin XP II (dicrotophos, bifenthrin)	8.0-12.8 ounces	16.0-10.0	Stink bugs, plant bugs
Brigadier (imidacloprid, bifenthrin)	5.1-7.7 ounces	25.0-16.6	Stink bugs, plant bugs
Elevest (chlorantraniliprole, bifenthrin)	4.8-9.6 ounces	26.7-13.3	Most caterpillar pests, stink bugs
Endigo ZCX (thiamethoxam, lambda – cyhalothrin)	3.5-5.5 ounces	36.6-25.6	Stink bugs, plant bugs
Hero (zeta – cypermethrin, bifenthrin)	5.2-10.3 ounces	24.6-12.4	Stink bugs
Intrepid Edge (methoxyfenozide, spinetoram)	3.0-6.0 ounces	42.6-21.3	Thrips
Leverage 360 (imidacloprid, beta – cyfluthrin)	3.2 ounces	40	Stink bugs, plant bugs
Triple Crown (imidacloprid, zeta – cypermethrin, bifenthrin)	4.5-6.4 ounces	28.4-20.0	Stink bugs, plant bugs
Velum Total (fluopyram, imidacloprid)	14.0-18.0 ounces	9.1-7.1	Thrips