

**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECTS – FOREST, SHADE AND CHRISTMAS**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>
<b>ASH</b>			
Aphids	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Ultra pure oil	2.0-4.0 gals/100 gals	
	Distance IGR	6.0-8.0 ozs/100 gals	
	Flagship	2.0-4.0 ozs or 4.0-8.0 ozs/100 gals	
	*Dursban 50WP	0.5-1.0 lb/100 gals 1.0-2.0 lbs/acre	
	Orthene TTO/75S	4.0 ozs/100 gals	Treat foliage when aphids appear; repeat at 7-to 10-day intervals if needed.
	97S	5.3 ozs/100 gals	
	Meridian 25WG	2.0-8.5 ozs/100 gals	
	Talstar 10WP	1.0 TBS/gal or 3.0-8.0 TBS/10 gals	
	Isotox	2.0 TBS/gal	
	Malathion 57% EC	1.5 pts/100 gals or 1.5 tsps/gal	
	Merit 75WP	1.0 tsp/10.0 gals or 3.5 TBS/100 gals	
	Thionex 3EC	2/3 qt/100 gals 2.0 TBS/3 gals	Do not use Thiodan near the home. Do not treat birch.
	Ultra fine oil	1.0-2.0 gals/100 gals	
	Zenith 75	1.6 ozs/300 gals	
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Borers	Acelepryn	4.0-32.0 ozs/100 gals	Selected borers.
	Permethrin SFR	2.0-5.0 qts/100 gals	
	Phaser 50WP	1.0-2.0 lbs/100 gals	
	Thionex 3EC	2/3-1 1/3 qts/100 gals	Apply in spring when buds begin to break; repeat in 10-14 days; materials may be injected into tunnels and sealed in with mud or clay.
	Astro	2.0-5.0 qts/100 gals	
	*Dursban 50WP	2.0 lbs/100 gals 8 (4 oz packets)	
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Caterpillars	Acelepryn	1.0-2.0 ozs/100 gals	
	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Ultra fine oil	1.0-2.0 gals/100 gals	
	°Confirm	2.0-8.0 ozs/acre	
	°Conserve SC (Spinosad)	0.06 oz/gal 6.0 ozs/100 gals	Caterpillars only.
	°Condor XL	0.75-1.75 pts/acre	
	Dylox 80%SP (Proxol) LS	20.0-30.0 ozs/100 gals 2.0-3.0 pts/100 gals or 2.0-3.0 tsps/gal	
	Ultra pure oil	2.0-4.0 gals/100 gals	
	°Crymax	0.5-1.5 lbs/acre	Caterpillars only.
	Marlate 50WP	2.0-3.0 lbs/100 gals or 2.0 tsps/gal	
	Orthene 97S/TTO	8.0 ozs/100 gals	
	75S/TTO	10.5 ozs/100 gals	
	°Bacillus thuringiensis		Javelin, Biobit, Thuricide, Foray 48B, Condor, Xentari, and Dipel; follow label.
Spintor 2	3.0-8.0 ozs/acre		
*Dursban 50WP	0.5-1.0 lb/100 gals 2-4 (4 oz packets)		

\*Professional use only, °Biological

**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECTS – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>	
<b><u>ASH (cont'd)</u></b>				
Caterpillars	Malathion 57% EC	2.0 pts/100 gals or 2.0 tsps/gal		
	°Dipel	1.0 tsp/gal	Use or repeat as needed.	
	Imidan 70%	0.75-1.0 lb/100 gals	Adjust pH to 5.5.	
Scales	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft		
	Ultra pure oil	2.0-4.0 gals/100 gals		
	Flagship	4.0-8.0 ozs/100 gals		
	Superior oil (60%-70%)	2.0 gals/100 gals or 5.0 TBS/gal		
	Zenith 75	1.6 ozs/300 gals		
	Malathion 57% EC	1.0-1.5 pts/100 gals or 1.0 tsp/gal	Apply when crawlers appear and repeat in 10 days.	
	Ultra fine oil	2.0-5.0 gals/100 gals	Dormant in summer.	
	Distance IGR	8.0-12.0 ozs/100 gals		
	Carbaryl 50WP	2.0 lbs/100 gals 2.0 TBS/gal		
	4F	1.0 qt/100 gals or 1.0 TBS/gal		
	Orthene TTO/75S	10.5 ozs/100 gals		
	97S	8.0 ozs/100 gals		
	*Supracide 2E	2.0 pts/100 gals		
	*Dursban 50WP	2.0 lbs/100 gals 8 (4 oz packets) 2.0-4.0 lbs/acre 8-16 (4 oz packets)		
	<b><u>BEECH</u></b>			
	Aphids	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
Ultra pure oil		0.7-1.0 gal/100 gals		
Ultra fine oil		1.0-2.0 gals/100 gals		
Distance IGR		6.0-8.0 ozs/100 gals		
Flagship		2.0-4.0 ozs/100 gals		
Orthene TTO/75S		5.3 ozs/100 gals		
97S		4.0 ozs/100 gals		
Talstar 10 WP		1.0 TBS/gal or 3.0-8.0 TBS/10 gals		
Malathion 57% EC		1.5 pts/100 gals or 1.5 tsps/gal		
Isotox		2.0 TBS/gal		
Meridian 25WG		2.0-8.5 ozs/100 gals		
Merit 75WP		1.0 tsp/10.0 gals or 3.5 TBS/100 gals		
Lacebugs	Acelepryn	Variable with plant size	Follow label.	
	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft		
	Ultra pure oil	2.0-4.0 gals/100 gals		
	Ultra fine oil	2.0-5.0 gals/100 gals		
	Orthene TTO/75S	5.3 ozs/100 gals		
	97S	4.0 ozs/100 gals		
	Carbaryl 50WP	2.0 lbs/100 gals 2.0 TBS/gal		
	4F	1.0 qt/100 gals or 1.0 TBS/gal		
	Isotox	2.0 TBS/gal		
	Malathion 57% EC	1.0 pt/100 gals or 1.0 TBS/gal		

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**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECTS – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>
<b><u>BEECH (cont'd)</u></b>			
Lacebugs	Merit 75WP	1.0 tsp/10.0 gals or 3.5 TBS/100 gals	
	*Disyston 15G	25.0-27.0 ozs/tree or 2.5 ozs/ inch of trunk diameter	
Caterpillars	Acelepryn	1.0-2.0 ozs/100 gals	
	Ultra pure oil	2.0-4.0 gals/100 gals	
	Ultra fine oil	2.0-5.0 gals/100 gals	
	Confirm 2F	2.0-8.0 ozs/acre	
	Conserve (Spinosad)	0.06 oz/gal 6.0 ozs/100 gals	
	Orthene TTO/75S	5.3 ozs/100 gals	
	97S	8.0 ozs/100 gals	
	Spintor 2	3.0-8.0 ozs/acre	
	Isotox	2.0 TBS/gal	
	Carbaryl 50WP	2.0 lbs/100 gals 2.0 TBS/gal	
	Malathion 57% EC	2.0 pts/100 gals or 2.0 tsps/gal	
	Imidan 70WP	0.75-1 lb/100 gals	
	°Crymax	0.5-1.5 lbs/acre	
	°Condor XL	0.75-1.75 lbs/acre	
Scales	Ultra pure oil	2.0-4.0 gals/100 gals	
	Ultra fine oil	2.0-5.0 gals/100 gals	
	Distance IGR	8.0-12.0 ozs/100 gals	
	Flagship	4.0-8.0 ozs/100 gals	
	Superior oil 60%-70%	2.0 gals/100 gals or 5.0 TBS/gal	
	*Dursban 50WP	2.0 lbs/100 gals Use: 8 (4 oz packets) 2.0-4.0 lbs/acre Use: 8-16 (4 oz packets)	
	Malathion 57% EC	1.0-1.5 pts/100 gals	Apply when crawlers appear and repeat in 10 days.
	Carbaryl 50WP	2.0 lbs/100 gals 2.0 TBS/gal	
	4F	1.0 qt/100 gals or 1.0 TBS/gal	
	Orthene TTO/75S 97S	10.5 ozs/100 gals 8.0 ozs/100 gals	
<b><u>RIVER BURCH</u></b>			
Aphids	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Ultra fine oil	0.7-1.0/gal	
	Ultra fine Oil	1.0-2.0 gals/100 gals	
	Distance IGR	6.0-8.0 ozs/100 gals	
	Flagship	2.0-4.0 ozs/100 gals	
	Orthene TTO/75S	5.3 ozs/100 gals	Treat foliage when aphids appear.
	97S	4.0 ozs/100 gals	
	Talstar 10WP	1.0 tsp/gal or 3.0-8.0 TBS/10 gals	
	Malathion 57% EC	1.5 pts/100 gals or 1.5 tsps/gal	
Meridian 25WG	2.0-8.5 ozs/100 gals		

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**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECTS – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>
<b><u>RIVER BURCH (cont'd)</u></b>			
	*Merit 75WP	1.0 tsp/10 gals or 3.5 TBS/100 gals	
	Isotox	2.0 TBS/gal water	
Scales	Same as Ash.		
Bronze birch borers	Same as Ash.		
Sawflies	Orthene	5.3 ozs/100 gals	
	Ultra pure oil	0.75-1 gal/100 gals	
	Ultra fine oil	1.0-2.0 gals/100 gals	
	Merit 74WP	1.0 tsp/10 gals or 3.5 TBS/100 gals	
	°Spinosad	2.0 ozs/gal or 22.0 ozs/100 gals	
Leafminers	Acelepryn	Variable	Follow label.
	°Conserve SC	0.2 oz/gal or 22.0 ozs/100 gals	
	Malathion 57% EC	1.0 qt/100 gals or 2.0 TBS/gal	
	Orthene TTO/75S	5.3 ozs/100 gals	
	97S	4.0 ozs/100 gals	
	Spintor 2	3.0-8.0 ozs/acre	
Eastern tent caterpillars	Acelepryn	1.0-2.0 ozs/100 gals	
Yellowneck caterpillars	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	1.0-2.0 gals/100 gals	
	Tempo 2	1.0-2.0 ozs/100 gals	
	Carbaryl	2.0 lbs/100 gals	Spray foliage and tent as needed in the spring.
	50WP	2.0 TBS/gal	
	Confirm 2F	2.0-8.0 ozs/acre	
	°Conserve	0.06 oz/gal	
	(Spinosad)	6.0 ozs/100 gals	
	Malathion	2.0 pts/100 gals or 2.0 tsps gal	
	Spintor 2	3.0-8.0 ozs/acre	
	Imidan 70WP	0.75-1.0 lb/100 gals	Adjust pH to 5.5.
	°B.t.		Javelin, Foray, Biobit, Thuricide, Dipel, Crymax, Condor XL; follow label.
	Orthene TTO/75S	5.3 ozs/100 gals	Spray as needed.
	97S	4.0 ozs/100 gals	
	Isotox	2.0 TBS/gal	
<b><u>BOXELDER</u></b>			
Boxelder aphids	Malathion 57% EC	1.5 pts/1,000 gals or 1.5 tsps/gal	Treat when insects are present.
Boxelder bugs	Carbaryl	2.0 lbs/100 gals	Primarily a house pest during warm days in fall, winter, and spring; spraying tree trunks and young insects when they appear before home invasion reduces the nuisance.
	50WP	2.0 TBS/gal	
	4F	1.0 qt/100 gals or 1.0 TBS/gal	
<b><u>CEDAR</u></b>			
Bagworms	Acelepryn	1.0-2.0 ozs/100 gals	
	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	

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**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECTS – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>	
<b><u>CEDAR (cont'd)</u></b>				
Bagworms	Orthene TTO/75S	1/3 lb/100 gals	Spray foliage in early June when bags are small; repeat in 10 days; handpick older larvae; spray in late afternoon.	
	97S	4.0 ozs/100 gals		
	Scimitar GS, CS	1.5-5.0 ozs/100 gals		
	Spintor 2	3.0-8.0 ozs/acre		
	Battle WP	1.2-4.8 ozs/100 gals		
	°B.t.			Same as Ash.
	Malathion 57% EC	2.0 pts/100 gals or 2.0 tsps/gal		
	Carbaryl	2.0 lbs/100 gals		
	50WP	2.0 TBS/gal		
	Dylox 80% SP	20.0-30.0 ozs/100 gals		
LS	2.0-3.0 pts/100 gals or 2.0-3.0 tsps/gal			
Isotox	2.0 TBS/gal			
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Mites	Forbid 4F	1.4-4.0 ozs/100 gals		
	Ultra pure oil	0.75-1.0 gal/100 gals		
	Ultra fine oil	1.0-2.0 gals/100 gals		
	°Conserve SC	0.2 fl oz/gal		
	(Spinosad)	22.0 ozs/100 gals		
	*Judo	2.0-4.0 ozs/100 gals		
	Mesurool 75WP	0.5-1.0 lb/acre		
	*Dicofol 35% WP	1.0-1 1/3 lbs/100 gals		
	(Kelthane)	1.5 TBS/gal		
	Talstar 10WP	1.0-2.0 TBS/gal or 3.0-8.0 TBS/10 gals		
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<b><u>CHERRY</u></b>				
Eastern tent caterpillars	Acelepryn	1.0-2.0 ozs/100 gals	Spray when webs first appear; cut webs out if practical.	
	Carbaryl	2.0 lbs/100 gals		
	50WP	2.0 TBS/gal		
	4F	1.0 qt/100 gals or 1.0 TBS/gal		
	Confirm 2F	2.0-8.0 ozs/acre		
	°Conserve SC	0.06 oz/gal		
	(Spinosad)	6.0 ozs/100 gals		
	Orthene TTO/75S	5.3 ozs/100 gals		
	97S	8.0 ozs/100 gals		
	Spintor 2	3.0-8.0 ozs/acre		
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Fall webworms	Confirm 2F	2.0-8.0 ozs/acre		
	Dylox 80% SP	20.0-30.0 ozs/100 gals		
	(Proxol) LS	2.0-3.0 pts/100 gals or 2.0-3.0 tsps/gal		
	Spintor 2	3.0-8.0 ozs/acre		
	(Spinosad)			
	Malathion 57% EC	2.0 pts/100 gals or 2.0 tsps/gal		
	Methoxychlor 50WP	2.0-3.0 lbs/100 gals		
	(Marlate)	2.0 TBS/gal		
°B.t.	Same as Ash.			

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**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECTS – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>
<b><u>CHINABERRY</u></b>			
Scales	Same as Ash.		
Whiteflies	Forbid 4F	2.0-4.0 ozs/100 gals	Drench 12-24 ozs/100 gals water.
	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	1.0-2.0 gals/100 gals	
	Safari	4.0-8.0 ozs/100 gals	
	Flagship	4.0-8.0 ozs/100 gals	
	°Distance 0.86 EC	6.0-8.0 ozs/100 gals	
	Meridian 25WG	2.0-8.5 ozs/100 gals	
	Orthene TTO/75S	10.5 ozs/100 gals	
	97S	8.0 ozs/100 gals	
	Talstar 10WP	1.0-2.0 TBS/gal or 3.0-8.0 TBS/10 gals	
	*Merit 75 WP	1.0 tsp/10 gals or 3.5 TBS/100 gals	
<b><u>CYPRESS</u></b>			
Scales	Same as Ash.		
Mites	Forbid 4F	1.4-4.0 ozs/100 gals	
	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	1.0-2.0 gals/100 gals	
	Judo	2.0-4.0 ozs/100 gals	
	*Kelthane 35% WP	1.0-1 1/3 lbs/100 gals	
	(Dicofol)	1.5 TBS/gal	
	Talstar 10WP	1.0-2.0 TBS/gal or 3.0-8.0 TBS/10 gals	
	*Mesurool 75WP	0.5-1.5 lbs/acre	
<b><u>DOGWOOD</u></b>			
Webworms	Acelepryn	1.0-2.0 ozs/100 gals	
	Carbaryl	2.0 lbs/100 gals	
	50WP	2.0 TBS/gal	
	Sevin 4F	1.0 qt/100 gals	
	Orthene TTO/75S	10.5 ozs/100 gals	
	97S	4.0 ozs/100 gals	
	*Imidan 70WP	0.75-1.0 lb/100 gals	
		Adjust pH to 5.5	
Dogwood borers and Dogwood twig borers	Same as Ash.		
<b><u>ELM</u></b>			
Aphids	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	1.0-2.0 gals/100 gals	
	Distance IGR	6.0-8.0 ozs/100 gals	
	Flagship	2.0-4.0 ozs/100 gals	
	Talstar 10WP	1.0-2.0 TBS/gal or 3.0-8.0 TBS/10 gals	
	Orthene TTO/75S	5.3 ozs/100 gals	
	97S	4.0 ozs/100 gals	

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**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECTS – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>
<b><u>ELM (cont'd)</u></b>			
	Isotox	2.0 TBS/gal	Do not use on Chinese elm.
	*Merit 75WP	1.0 tsp/10 gals or 3.5 TBS/100 gals	
	Malathion 57% EC	1.5 pts/100 gals or 1.5 tsps/gal	
	Meridian 25WG	2.0-8.5 ozs/100 gals	
	Thionex 3EC	2/3 qt/100 gals or 2.0 TBS/3gals	Do not use near home or treat birch.
	Zenith 75	1.6 ozs/300 gals water	
Elm bark beetles	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	1.0-2.0 gals/100 gals	
	Methoxychlor 25EC	<u>Hydraulic sprayers:</u> 8.0 gals/92 gals or 1.0 qt/3 gals	Apply as a dormant treatment in spring before leaves appear; thoroughly cover bark on trunk, limbs, and twigs; apply when temperature is above 40°F; do not spray Chinese elms, Japanese maples, red maples, and redbud. American and winged elms are susceptible to DED. Chinese and Siberian elms are resistant. <b>Sanitation:</b> eliminate breeding sites such as broken branches, weak trees, and newly cut wood of all elms.
		<u>Mist blowers:</u> 1.0 gal/1 gal water	
	°Conserve SC	0.06 oz/gal or 6.0 ozs/100 gals	
Elm leaf beetles	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	1.0-2.0 gals/100 gals	
	Carbaryl	2.0 lbs/100 gals	
	50WP	2.0 TBS/gal	
	4F	1.0 qt/100 gals	Spray foliage when larvae first appear about the time leaves are fully expanded; repeat in 2 weeks.
	Scimitar GS, CS	1.5-5.0 ozs/100 gals	
	Battle WP	1.2-4.8 ozs/100 gals	
	*Merit 75WP	1.0 tsp/gal or 3.5 TBS/100 gals	
	Zenith 75	1.6 ozs/300 gals	
	Orthene TTO/75S	10.5 ozs/100 gals	Do not spray on American elm.
	97S	8.0 ozs/100 gals	
Caterpillars	Acelepryn	1.0-2.0 ozs/100 gals	
	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Carbaryl	2.0 lbs/100 gals	Spray foliage and web when web is first noticed.
	50WP	2.0 TBS/gals	
	4F	1.0 qt/100 gals or 1.0 TBS/gal	
	Confirm 2F	2-8 ozs/acre	
	°Conserve SC	0.06 oz/gal or 6 ozs/100 gals	
	Methoxychlor 50WP	2.0-3.0 lbs/100 gals	
	(Marlate)	2.0 TBS/gal	
	Orthene TTO/75S	10.5 ozs/100 gals	
	97S	8.0 ozs/100 gals	
	Dylox 80% SP	20.0-30.0 ozs/100 gals	
	LS	2.0-3.0 pts/100 gals or 2.0-3.0 tsps/gal	
	°B.t.		Same as Ash; follow label.
	*Ficam W	11.0 ozs/100 gals	
	Tempo 2	1.0-2.0 ozs/100 gals	

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TREE INSECTS – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>
<b><u>ELM (cont'd)</u></b>			
Caterpillars	*Imidan 70WP	0.75-1.0 lb/100 gals	
	Scimitar GS, CS	1.5-5.0 ozs/100 gals	
	Spintor 2 (Spinosad)	3.0-8.0 ozs/acre	
	Battle WP	1.2-4.8 ozs/100 gals	
Scales	Same as Ash.		
<b><u>GUM</u></b>			
Scales	Same as Ash.		
Caterpillars	Same as Elm.		
<b><u>HAWTHORN</u></b>			
Aphids	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	1.0-2.0 gals/100 gals	
	Safari	4.0-8.0 ozs/100 gals	
	Distance IGR	6.0-8.0 ozs/100 gals	
	Flagship	2.0-4.0 ozs/gal	
	Malathion 57% EC	1.5 pts/100 gals or 1.5 tsps/gal	
	Meridian 25WG	2.0-8.5 ozs/100 gals	
	Thiodan 2EC	1.0 qt/100 gals or 2.0 TBS/3 gals	Do not use near home or treat birch.
	Orthene TTO/75S	5.3 ozs/gal or 4.0 ozs/100 gals	
	Isotox	2.0 TBS/gal	
	Meridian 25 WG	2.0-8.5 ozs/100 gals	
	*Merit 75WP	1.0 tsp/10 gals or 3.5 TBS/100 gals	
	Lace bugs	Acelepryn	1.0-2.0 ozs/100 gals
Arena 0.25G		3.0-3.6 lbs/1,000 sq ft	
Ultra pure oil		0.75-1.0 gal/100 gals	
Ultra fine oil		1.0-2.0 gals/100 gals	
Carbaryl 50WP		2.0 lbs/100 gals 2.0 TBS/gal	Treat when small nymphs appear (May through September); repeat at 7- to 10-day intervals if needed.
4F		1.0 qt/100 gals or 1.0 TBS/gal	
Malathion 57% EC		1.0 pt/100 gals or 1.0 tsp/gal	
*Merit 75WP		1.0 tsp/10 gals or 3.5 TBS/100 gals	
*Disyston 15G		25.0-27.0 ozs/tree or 2.5 ozs/inch of trunk diameter	
Orthene TTO/75S		5.3 ozs/100 gals	
97S		4.0 ozs/100 gals	
Zenith 75	1.6 ozs/300 gals		
Spider mites	Forbid 4F	1.4-4.0 ozs/100 gals	
	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	1.0-2.0 gals/100 gals	
	Judo	2.0-4.0 ozs/100 gals	
	Conserve SC	0.2 oz/gal or 22.0 ozs/100 gals	

\* Professional use only

**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECTS – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>
<b><u>HAWTHORN</u> (cont'd)</b>			
Spider mites	*Dicofol 35% WP (Kelthane)	1.0-1 1/3 lbs/100 gals 1.5 TBS/gal	Treat when mites are present; repeat at 7- to 10-day intervals if needed.
	Floramite	2.0-4.0 ozs/100 gals	
	*Mesurool 75WP	0.5-1.5 lbs/acre	
	Avid 0.15EC	8.0 ozs/100 gals	
	Tetram 5WDG	16.0-32.0 ozs/acre or 8.0-16.0 ozs	
			Does not affect adults but will cause sterilization; effective against young mites; can only be used 2 times a year; to control adults use adulticide; for use in greenhouse, lath, and shade house only.
<b><u>HICKORY</u></b>			
Twig girdler	<u>Sanitation</u>		Gather and destroy all severed branches in fall or winter.
Caterpillars	Acelepryn	1.0-2.0 ozs/100 gals	Treat when larvae are present.
	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Carbaryl 50WP	2.0 lbs/100 gals 2.0 TBS/gal	
	4F	1.0 qt/100 gals or 1.0 TBS/gal	
	°Conserve SC	0.06 oz/gal or 6.0 ozs/100 gals	
	Methoxychlor 50WP (Marlate)	2.0-3.0 lbs/100 gals 2.0 TBS/gal water	
	Malathion 57% EC	2.0 pts/100 gals or 2.0 tps/gal	
	Tempo 2	1.0-2.0 ozs/100 gals	
	*Imidan 70WP	0.75-1.0 lb/100 gals	
	°B.t.	Same as Ash.	
	Scimitar GS, CS	1.5-5.0 ozs/100 gals	
	Spintor 2	3.0-8.0 ozs/acre	
	Orthene TTO/75S	5.3 ozs/100 gals	
	97S	4.0 ozs/100 gals	
Eriophyid mites	Forbid 4F	1.4-4.0 ozs/100 gals	
	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	1.0-2.0 gals/100 gals	
	*Judo	2.0-4.0 ozs/100 gals	
	Carbaryl 50WP	2.0 lbs/100 gals 2.0 TBS/gal	
	4F	1.0 qt/100 gals or 1.0 TBS/gal	
	Talstar	0.25-0.5 oz/1,000 sq ft or 10.0-20.0 ozs/acre	
<b><u>HOLLY</u></b>			
Southern red spider mites	Forbid 4F	1.4-4.0 ozs/100 gals	
	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	1.0-2.0 gals/100 gals	
	Judo	2.0-4.0 ozs/100 gals	
	Avid 0.15EC	8.0 ozs/100 gals	
	Conserve SC	0.2 oz/gal or 22.0 ozs/100 gals	
	*Dicofol 35% WP (Kelthane)	1.0-1 1/3 lbs/100 gals 1.5 TBS/gal	

\* Professional use only, °Biological

**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECT – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>
<b><u>HOLLY (cont'd)</u></b>			
Southern red spider mites	Floramite	1/3-2/3 tsp/gal or 2.0-4.0 ozs/100 gals	
	*Mesurool 75WP	0.5-1.5 lbs/acre	
	Isotox	2.0 TBS/gal	
	Citation	2.66 ozs/100 gals	
Leafminers	Peretherin SFR	4.0-8.0 ozs/100 gals	Apply to leaves when new growth begins; a common pest of American holly sometimes occurring on English holly.
	Avid 0.15EC	0.5 tsp/gal or 8.0 ozs/100 gals	
	*Merit 75WP	1.0 tsp/10 gals water or 3.5 TBS/100 gals	
	°Conserve SC (Spinosad)	0.2/gal 22.0 ozs/100 gals	
	Isotox	2.0 TBS/gal	
	Zenith 75	1.6 ozs/300 gals	
	<b><u>JUNIPER</u></b>		
Bagworms	Acelepryn	1.0-2.0 ozs/100 gals	
	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Peretherin SFR	4.0-8.0 ozs/100 gals	
	Confirm	2.0-8.0 ozs/acre	
	°Condor XL	0.75-1.75 pts/acre	
	°Dipel	2.0-4.0 TBS/gal	
	Orthene TTO/75SP	1/3 lb/100 gals	
		97SP	4.0 ozs/100 gals
	Isotox	2.0 TBS/gal	
	Dylox 80% SP	20.0-30.0 ozs/100 gals	
		LS	2.0-3.0 pts/100 gals or 2.0-3.0 tsps/gal
	Spintor 2	3.0-8.0 ozs/acre	
	Scimitar GS, CS	1.5-5.0 ozs/100 gals	
	Battle WP	1.2-4.8 ozs/100 gals	
	°Crymax	0.5-1.5 lbs/acre	
	Malathion 57% EC	2.0 pts/100 gals or 2.0 tsps/gal	
Spider mites	Forbid 4F	1.4-4.0 ozs/100 gals	
	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	1.0-2.0 gals/100 gals	
	°Conserve SC	0.2 oz/gal or 22.0 ozs/100 gals	
	*Dicofol 35%WP (Kelthane)	1.0-1 1/3 lbs/100 gals	
		1.5 TBS/gal	
	Malathion 57%EC	1.5 pts/100 gals or 1.5 tsps/gal	
	°Mesurool 75WP	0.5-1.5 lbs/acre or 0.5-1.0 tsp/gal	
		Tetram 5WDG	16.0-32.0 ozs/acre or 8.0-16.0 ozs
	Judo	2-4 ozs/100 gals	
Vendex 50WP	1.0 qt/100 gals or 0.5-1.0 tsp gal		
	Entex 4EC	1.0 qt/100 gals or 2.0 tsps/gal	

\* Professional use only, °Biological

**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECT – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>
<b><u>JUNIPER (cont'd)</u></b>			
Leafminers	Spintor	0.2 oz or 6.0 mls/gal	
	°Conserve		
	°Citation-IGR	2.66 ozs/100 gals/acre	Dipterous (Fly) leafminers.
	Merit 75WP	1.0 tsp/10 gals water or 3.5 TBS/100 gals	
	Isotox	2.0 TBS/gal	
	°Precision-IGR	6.0-8.0 ozs/100 gals water	Lepidopterous leafminers (Azalea-Citrus).
Locust borers	Same as Ash.		
Locust leafminers	°Conserve SC	0.2 oz or 6 mls/gal	
	Malathion 57%EC	1.5 pts/100 gals or 1.5 tsps/gal	
	Merit 75WP	1.0 tsp/10 gals water or 3.5 TBS/100 gals	
	Isotox	2.0 TBS/gal water	
<b><u>LOCUST (HONEY)</u></b>			
Caterpillars	Acelepryn	1.0-2.0 ozs/100 gals	
	*Imidan 70WP	0.75-1.0/100 gals	Apply as a foliar spray when adults first appear (early summer); repeat twice at 4- to 5-week intervals; adjust water pH to 5.5.
	Orthene TTO/75S	10.5 ozs/100 gals	
	97S	8.0 ozs/100 gals	
Spintor 2	3.0-8.0 ozs/acre		
Mimosa webworms	Carbaryl	2.0 lbs/100 gals	Follow label.
	50WP	2.0 TBS/gal	
	4F	1.0 qt/100 gals or 1.0 TBS/gal	
	°B.t.	Same as Ash.	
	Dylox 80% SP	20.0-30.0 ozs/100 gals	
	LS	2.0-3.0 pts/100 gals or 2.0-3.0 tsps/gal	
	Scimitar	1.5-5.0 ozs/100 gals water	
<b><u>MAGNOLIA</u></b>			
Scales	Same as Ash.		
Leafminer weevils	Imidan 70WP	2.0 lbs/100 gals water	Water pH 5.5*
<b><u>MAPLE</u></b>			
Aphids	Ultra pure oil	0.75-1.0 gal/100 gals	MALATHION MAY INJURE SUGAR MAPLE. Treat when aphids appear. Repeat at 7- to 10-day intervals if needed. Do not use near home or treat birch.
	Ultra fine oil	1.0-2.0 gals/100 gals	
	Zenith 75	1.6 ozs/300 gals	
	Safari	4.0-8.0 ozs/100 gals	
	Flagship	2.0-4.0 ozs/100 gals	
	Talstar 10WP	1.0 TBS/gal or 3.0-8.0 TBS/10 gals	
	Orthene TTO/75S	5.3 ozs/100 gals	
	97S	4.0 ozs/100 gals	
	Malathion 57% EC	1.5 pts/100 gals or 1.5 tsps/gal	

\* Professional use only, °Biological

**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECT – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>
<b><u>MAPLE (cont'd)</u></b>			
Aphids	Thionex 3EC	2/3-1 1/3 qts/100 gals or 2.0 TBS/3 gals	
	Meridian 25WG	2.0-8.5 ozs/100 gals	
	*Merit 75WP	1.0 tsp/10 gals or 3.5 TBS/100 gals	
Bladder gall mites or Eriophid mites	Forbid 4F	1.4-4.0 ozs/100 gals	Spray trees at bud break and repeat at 10- to 14-days for 3 sprays.
	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	1.0-2.0 gals/100 gals	
	Carbaryl 50WP	2.0 lbs/100 gals 2.0 TBS/gal	
Borers	Same as Ash.		
Caterpillars	Acelepryn	1.0-2.0 ozs/100 gals	Spray when caterpillars are small.  Adjust water pH to 5.5.
	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Malathion 57% EC	2.0 pts/100 gals or 2.0 tsps/gal	
	Confirm	2.0-8.0 ozs/100 gals	
	Carbaryl 50WP	2.0 lbs/100 gals 2.0 TBS/gal	
	°B.t.	Same as Ash.	
	Spintor 2	3.0-8.0 ozs/acre	
	Tempo 2	1.0-2.0 ozs/100 gals	
	*Imidan 70WP	0.75-1.0 lb/100 gals	
	Orthene TTO/75S 97S	5.3 ozs/100 gals 4.0 ozs/100 gals	
Isotox	2.0 TBS/gal		
<b><u>MIMOSA</u></b>			
Mimosa webworms	°Conserve SC	2.0 mls/gal water or 6.0 ozs/100 gals	
	°Crymax	0.5-1.5 lbs/acre	
	°Condor XL	0.75-1.75 pts/acre	
	Orthene TTO/75S 97S	10.5 ozs/100 gals 8.0 ozs/100 gals	
	Carbaryl 50WP	2.0 lbs/100 gals 2.0 TBS/gal	
	4F	1.0 qt/100 gals or 1.0 TBS/gal	
	Dylox 80% SP LS	20.0-30.0 ozs/100 gals 2.0-3.0 pts/100 gals or 2.0-3.0 tsps/gal	
	Tempo 2	1.0-2.0 ozs/100 gals	
	Scales	Same as Ash.	
<b><u>MULBERRY</u></b>			
Lace bugs	Acelepryn	2.0-4.0 ozs/100 gals	
	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Malathion 57% EC	1.0 pt/100 gals or 1.0 TBS/gal	
	*Merit 75WP	1.0 tsp/10 gals or 3.5 TBS/100 gals	

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**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECT – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>
<b><u>MULBERRY (cont'd)</u></b>			
Mites	Forbid 4F	1.4-4.0 ozs/100 gals	
	Ultra pure oil	0.75-1.0 gal/100 gals	
	*Kelthane (Dicofol) 35WP	1.0-1 1/3 lbs/100 gals 1.5 TBS/gal	
	Ultra fine oil	2.5-5.0 ozs/gal, 1.0-2.0 gals	
	Stinkbugs	Carbaryl 50WP	2.0 lbs/100 gals 2.0 TBS/gal
<b><u>OAK</u></b>			
Aphids	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	1.0-2.0 gals/100 gals	
	Zenith 75	1.6 ozs/300 gals	
	Safari	4.0-8.0 ozs/100 gals	
	Flagship	2.0-4.0 ozs/100 gals	
	Talstar 10WP	1.0 TBS/gal or 3.0-8.0 TBS/10 gals	
	*Thiodan 2EC	1.0 qt/100 gals or 2.0 TBS/3 gals	Do not use around the home or on birch.
	Isotox	2.0 TBS/gal	
	Malathion 57% EC	1.5 pts/100 gals or 1.5 tsps/gal	
	Meridian 25WG	2.0-8.5 ozs/100 gals	
	*Merit 75WP	1.0 tsp/10 gals or 3.5 TBS/100 gals	
	Orthene TTO/75S 97S	5.3 ozs/100 gals 4.0 ozs/100 gals	
	Caterpillars (including Buckmoth)	Acelepryn	1.0-2.0 ozs/100 gals
Arena 0.25G		3.0-3.6 lbs/1,000 sq ft	
Battle		5.0-10.0 ozs/acre	
Carbaryl 50WP		2.0 lbs/100 gals or 2.0 TBS/gal	Spray foliage and web when web is first noticed.
4F		1.0 qt/100 gals or 1.0 TBS/gal	
Confirm 2F		2.0-8.0 ozs/acre	
*Imidan 70WP		0.75-1.0 lb/100 gals	Adjust water pH to 5.5
Orthene TTO/75S 97S		10.5 ozs/100 gals 8.0 ozs/100 gals	
Tempo 2		1.0-2.0 ozs/100 gals	
Malathion 57% EC		2.0 pts/100 gals or 2.0 tsps/gal	
Methoxychlor 50WP (Marlate)		2.0-3.0 lbs/100 gals 2.0 TBS/gal	
°B.t.		Same as Ash.	
Dylox 80% SP LS		20.0-30.0 ozs/100 gals 2.0-3.0 pts/100 gals or 2.0-3.0 tsps/gal	
Scimitar		1.5-5.0 ozs/100 gals	
Orange-striped oakworm		Acelepryn	1.0-2.0 ozs/100 gals
	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Battle	5.0-10.0 ozs/acre	
	°Conserve SC	2.0 mls/gal or 6.0 ozs/100 gals	

\* Professional use only, °Biological

**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECT – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>
<b><u>OAK</u> (cont'd)</b>			
Orange-striped oakworm	Carbaryl	2.0 lbs/100 gals water	
	50WP	2.0 TBS/gal water	
	4F	1.0 qt/100 gals water or 1.0 TBS/gal	
	°Crymax	0.5-1.5 lbs/acre	
	°Condor XL	0.75-1.75 pts/acre	
Tent caterpillar	Acelepryn	1.0-2.0 ozs/100 gals	
	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Battle	5.0-10.0 ozs/acre	
	Orthene TTO/75S	10.5 ozs/100 gals	
	97S	8.0 ozs/100 gals	
	Carbaryl	2.0 lbs/100 gals water	Spray when webs are first seen. Repeat at 7- to 10-day intervals if needed.
	50WP	2.0 TBS/gal water	
	4F	1.0 qt/100 gals water or 1.0 TBS/gal water	
	Confirm 2F	2.0-8.0 ozs/acre	
	°Condor XL	0.75-1.75 pts/acre	
	Malathion 57% EC	2.0 pts/100 gals or 2.0 tsps/gal	
	Methoxychlor 25EC	2.0-3.0 qts/100 gals or 2.0 TBS/gal	
	°Crymax	0.5-1.5 lbs/acre	
	°Dipel	0.5-1.0 tsp/gal	Spray in early morning or late afternoon.
	Isotox	2.0 TBS/gal	
	Spintor 2	3.0-8.0 ozs/acre	
Dylox 80SP (Proxol)	20.0-30.0 ozs/100 gals		
Tempo 2	1.0-2.0 ozs/100 gals		
Gall Wasps Several species on stems and foliage	Flagship	2.0-4.0 ozs/100 gals	The use of systemic and residual materials early at bud break are suggested to prevent infestations. Sprays should be repeated at monthly intervals for 3-4 months.
	Orthene TTO/75S	1 1/3 lbs/100 gals	
	97S	8.0 ozs/100 gals	
	Thionex 50WP	2.0 lbs/100 gals	
	Meridian 25WG	2.0-8.5 ozs/100 gals	
Lace bugs	Acelepryn	2.0-4.0 ozs/100 gals	Treat when small nymphs appear (May through September); repeat at 7-to 10-day intervals if needed.
	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Zenith 75	1.6 ozs/300 gals	
	Orthene TTO/75S	5.3 ozs/100 gals	
	97S	4.0 ozs/100 gals	
	Carbaryl	2.0 lbs/100 gals or	
	50WP	2.0 TBS/gal	
	4F	1.0 qt/100 gals or 1.0 TBS/ gal	
	Malathion 57% EC	1.0 pt/100 gals or 1.0 tsp/gal	
*Merit 75WP	1.0 tsp/10 gals or 3.5 TBS/100 gals		
Isotox	2.0 TBS/gal		

\* Professional use only, °Biological

**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECT – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>
<b><u>PECAN</u></b>			
Aphids	*Merit (Provado)	1.0 tsp/10 gals or 3.5 TBS/100	
Phylloxera	Malathion 25WP Thionex 50WP	3.0 lbs/100 gals 1.0 lb/100 gals	Apply at bud break; do not use around cattle.
	*Merit (Provado)	1.0 tsp/10 gals or 3.5 TBS/100 gals	
	*Lorsban 4E	2.0 qts/100 gals	
Twig girdler	Sanitation		Gather and destroy all severed branches in fall or winter.
Fall webworm	*Merit (Provado)	1.0 tsp/10 gals or 3.5 TBS/100	Caterpillars only.
Eriophid mites	Forbid 4F Ultra pure oil Ultra fine oil Carbaryl 50WP 4F	1.4-4.0 ozs/100 gals 0.75-1.0 gal/100 gals 1.0-2.0 gals/100 gals 2.0 lbs/100 gals 2.0 TBS/gal 1.0 qt/100 gals or 1.0 TBS/gal	
Yellowneck caterpillars	Acelepryn	1.0-2.0 ozs/100 gals	
Walnut caterpillars	Confirm 2F Spintor 2	8.0-16.0 ozs/acre 3.0-8.0 ozs/acre	
Caterpillars	°Confirm Carbaryl Malathion 57% EC Methoxychlor 50WP (Marlate)	8.0-16.0 ozs/acre 2.0 pts/100 gals 2.0 tsps/gals 2.0-3.0 lbs/100 gals 2.0 TBS/gal	
<b><u>VIRGINIA PINE AND PINES GROWN FOR CHRISTMAS TREES</u></b>			
Nantucket pine	Orthene TTO/75S	1.0 lb/100 gals	Chemical control is usually impractical under forest conditions due to high cost. Spray lawn and high value trees to coincide with moth emergence.
tip moth	97S	12.0 ozs/100 gals	
	Spintor 2 (Spinosad)	1.0 TBS/gal or 3.0-8.0 ozs/acre	Drench-spray the terminals with high or low pressure sprayer dependent on size and number of trees; destroy infested tips where practical. Shearing Christmas trees 1-3 times at proper times in conjunction with proper timing of sprays will control the Nantucket pine tip moth.
	°Conserve SC	0.2 oz/gal or 22.0 ozs/100 gals	
	*Dursban 50W	1.0 lb/100 gals 4 (4 oz packets) or 2.0 lbs/acre 8 (4 oz packets)	
	Dylox 80% SP	20.0 ozs/100 gals	
	LS	2.0 pts/100 gals	
	Astro 3.2EC	4.0-8.0 ozs/100 gals	
	Confirm 2F	8.0 ozs/acre	
	Proxol 80%SP	20.0 ozs/100 gals	
	Pounce 3.2EC	4.0-8.0 ozs/acre	
	*Imidan 70WSB	1 1/3 lbs/acre	
			Use only late season to prevent scale buildup; Christmas trees only; pH 5.5.

\*Professional use only; °Biological, °IGR

**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECT – FOREST, SHADE AND CHRISTMAS (cont'd)**

HOST AND PEST	PESTICIDE	RATE	REMARKS
<b><u>VIRGINIA PINE AND PINES GROWN FOR CHRISTMAS TREES (cont'd)</u></b>			
Southern pine plantation and Christmas trees	*Lorsban 50W	0.25-0.50 lb/acre	Apply at early stages of instar development preferably at beginning of first and second tip moth generation. Apply in sufficient water or uniform full coverage of foliage, 10-20 gallons water/acre. Protection of first-year seedling is important to getting straight stem.
	°Dimilin 25W	4.0 ozs/acre	
	°Azatin XL	10.0-20.0 ozs/acre	
Pales weevils	Arctic 3.2EC	8.0 ozs/100 gals	Water pH 5.5 See label.
Pitch-eating weevils	*Imidan 70WSB	1 1/3 lbs/acre 4% dip for young trees	
	Permethrin SFR	2.0-5.0 qts/100 gals	
	Duraguard ME	1.2 gals/100 gals	
	*Dursban 50W	1.0 lb	
	Orthene TTO/97S	12.0 ozs/100 gals	
Deodar weevils	*Imidan 70W	1 1/3-1.5 lbs/acre	
	Permethrin SFR	2.0-5.0 qts/100 gals	
Coneworms	Orthene TTO/75S	2/3-3/4 lb/100 gals	Coneworms can be a major problem in stressed or damaged Christmas trees.
	97S	8.0 ozs/100 gals	
	*Dursban 50WP	1.0 lb/100 gals 4 (4 oz packets) 2.0 lbs/acre 8 (4 oz packets)	
	Duraguard ME	1.2 gals/100 gals	They attack wounds and breaks in the trunks and stems, girdling, and killing trees.
	°Conserve SC	6.0 mls/gal or 22.0 ozs/100 gals	
	Astro 3.2 EC	4.0-8.0 ozs/100 gals	
Pine bark aphids	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	Do not use near the home; do not use on birch.
	Safari	4.0-8.0 ozs/100 gals	
	Flagship	2.0-4.0 ozs/100 gals	
	Endeavor 50%	10.0 ozs/acre	
	Talstar 10WP	1.0-3.0 TBS/gal or 3.0-8.0 ozs/50 gals	
	Malathion 57% EC	1.5 pts/100 gals or 1.5 tsps/gal	
	Meridian 25WG	2.0-8.5 ozs/100 gals	
	Thionex 3EC	2/3 qt/100 gals or	
	(Phaser)	2.0 TBS/3 gals	
	Isotox	2.0 TBS/gal	
	Orthene TTO/75S	5.3 ozs/100 gals	
	97S	4.0 ozs/100 gals	
*Merit 75WP	1.0 tsp/10 gals or 3.5 TBS/100 gals		
Pine needle scales	Safari	8.0-12.0 ozs/100 gals	
	Flagship	4.0-8.0 ozs/100 gals	
	*Dursban 50WP	2.0 lbs/100 gals	
		8 (4 oz packets)	

\*Professional use only; °Biological

**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECT – FOREST, SHADE AND CHRISTMAS (cont'd)**

HOST AND PEST	PESTICIDE	RATE	REMARKS
<b><u>VIRGINIA PINE AND PINES GROWN FOR CHRISTMAS TREES (cont'd)</u></b>			
Pine needle scales	*Dursban 50WP	2.0-4.0 lbs/acre 8-16 (4 oz packets)	
	Malathion 57% EC	4.0 pts/100 gals water or 4.0 tsps/gal	
	Duraguard ME	1.2 gals /100 gals	
All pine sawflies	Zenith 75	1.6 ozs/300 gals	Apply when insects or their damage appears Repeat weekly or as needed. MAY BE PHYTOTOXIC ON SOME SPECIES OF PINE. READ LABEL!
	Carbaryl 50WP	2.0 lbs/100 gals 2.0 TBS/gal	
	4F	1.0 qt/100 gals or 1.0 TBS/gal	
	°Conserve SC	0.06 oz/gal or 6.0 ozs/100 gals	
	Isotox	2.0 TBS/gal	
	Spintor 2	3.0-8.0 ozs/acre	
	*Merit 75WP	1.0 tsp/10 gals or 3.5 TBS/100 gals	
	Orthene TTO/75S	10.5 oz/100 gals	
	97S	8.0 ozs/100 gals	
Malathion 57% EC	2.0 pts/100 gals or 2.0 tsps/gal		
Southern pine beetles	Phaser 50WP	1.0-2.0 lbs/100 gals	Keep pine stand vigorous; promptly remove infested trees or salvage for sawtimber or pulpwood; high value trees can be protected by applying a medium spray to the entire trunk until the bark is wet. Under forest conditions or where the spray will not fall on lawn or shrubbery, diesel oil may be used for water; re-spray in 30-60 days as needed; spray until runoff; for preventive treatment apply the spray to the main trunk of pines in early spring or when threat of attack exists; apply to main trunk of infested trees (or infested tops) when damage occurs but before adult beetles begin to emerge; spray from ground to limbs; spray to runoff; repeat as needed; keep trees vigorous; avoid excessive grading and filling; prevent or control infestation by spraying lower 10 feet of trunk, exposed roots, and fresh stumps until runoff; substitute diesel oil for water where there is no danger of spray falling on lawn or shrubbery; spray when aphids are present; repeat as needed.
Pine engraver (Ips) beetles	Thionex 50WP (Phaser)	1.0-2.0 lbs/100 gals	
Turpentine beetles	Astro	2.0-5.0 qts/100 gals	
	*Dursban 50W	16.0 lbs/100 gals	
	Permethrin SFR	2.0-5.0 qts/100 gals	
Pine aphids	Zenith	1.6 ozs/300 gals	
	Flagship	2.0-4.0 ozs/100 gals	
	Orthene TTO/75S	5.3 ozs/100 gals	
	97S	4.0 ozs/100 gals	
	Endeavor 50%	10.0 ozs/acre	
	Meridian 25WG	2.0-8.5 ozs/100 gals	
	Thionex 3EC (Phaser)	2/3 qt/100 gals or 2.0 TBS/3 gals	
	Isotox	2.0 TBS/gal	

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**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECT – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>
<b><u>VIRGINIA PINE AND PINES GROWN FOR CHRISTMAS TREES (cont'd)</u></b>			
Mites	Forbid 4F	1.4-4.0 ozs/100 gals	Repeat at 7- to 10-day intervals as needed.
	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	0.75-2.5 gals/100 gals	
	Judo	2.0-4.0 ozs/100 gals	
	Avid 0.15EC	0.25 tsp/gal	
		4.0 ozs/100 gals	
Pine colaspis	Malathion 57% EC	2.0 pts/100 gals or 2.0 tsps/gal	Treat when beetles appear usually in May and June.
	Carbaryl 50WP	0.5-1.0 lb/100 gals or 2 TBS/gal	
	Orthene TTO/75S 97S	5.3-10.5 ozs/100 gals 4.0-8.0 ozs/100 gals	
<b><u>RED BUD</u></b>			
Scales		Same as Ash.	
Caterpillars		Same as Mimosa.	
<b><u>SYCAMORE</u></b>			
Lace bugs	Acelepryn	1.0-2.0 ozs/100 gals	Treat when lace bugs are present. Repeat weekly as needed.
	Arena 0.25G	3.0-3.6 lbs/1,000 sq ft	
	Zenith	1.6 os/300 gals	
	Orthene OTTO	5.3 ozs/100 gals	
	Carbaryl 50WP	2.0 lbs/100 gals 2.0 TBS/gal	
	4F	1.0 qt/100 gals or 1.0 TBS/gal	
	Merit 75WP	1.0 tsp/10 gals or 3.5 TBS/100 gals	
<b><u>WILLOW</u></b>			
Aphids	Same as Oak.		
Fall webworms	Same as Oak.		
Tent caterpillars	Same as Oak.		
Leaf beetles	Carbaryl	2.0 lbs/100 gals	
	50WP	2.0 TBS/gal	
Spider mites	Forbid 4F	1.4-4.0 ozs/100 gals	Does not effect adults but will cause sterilization; effective against young mites; can be used only 2 times a year; to control adults use adulticide; for use in greenhouse, lath, and shade house only.
	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	0.75-2.5 gals/100 gals	
	*Dicofol	1.0-1 1/3 lbs/100 gals	
	(Kelthane) 35WP	1.5 tsps/gal	
	°Conserve SC	6.0 mls/gal or 22.0 ozs/100 gals	
	Tetram 5WDG	16.0-32.0 ozs/acre or 8.0-16.0 ozs	
Eriophid mites	Forbid 4F	1.4-4.0 ozs/100 gals	
	Judo	2.0-4.0 ozs/100 gals	

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**LOUISIANA RECOMMENDATIONS FOR  
TREE INSECT – FOREST, SHADE AND CHRISTMAS (cont'd)**

<b>HOST AND PEST</b>	<b>PESTICIDE</b>	<b>RATE</b>	<b>REMARKS</b>
<b><u>WILLOW (cont'd)</u></b>			
Eriophid mites	Carbaryl	2.0 lbs/100 gals	
	50WP	2.0 TBS/gal	
Scales	Same as Oak.		
<b><u>YELLOW POPLAR</u></b>			
Tulip tree scales	Ultra pure oil	0.75-1.0 gal/100 gals	
	Ultra fine oil	2.0-5.0 gals/100 gals	Dormant in summer.
	(98%)	0.75-2.5 gals/100 gals	
	Carbaryl	2.0 lbs/100 gals	Spray when crawlers are present in July or August. Repeat in 10 days if necessary.
	50WP	2.0 TBS/gal	
	4F	1.0 qt/100 gals or 1.0 TBS/gal	
	*Dursban 50WP	2.0 lbs/100 gals 8 (4 oz packets)	
Superior oil		3.0 gals/100 gals	
	(60%-70%)	8.0 TBS/gal	
Leafminers	Imidan 70WP	1.5-2.0 lbs/100 gals	Apply after initial feeding on new growth; water pH 5.5
Ultra fine oil or Ultra pure oil can be used with insecticides to enhance control of many tree insects and mites.			

**LOUISIANA RECOMMENDATIONS FOR CONTROL OF TOWN ANTS**

These ants are foliage feeders and do not bite. They will strip the foliage off ornamentals, vegetables, and trees. The foliage is then chewed and used to grow a fungus that is the primary food source the ant. Colonies can cover small areas up to the ant of 5 or 6 acres.

<b>MATERIAL</b>	<b>FORMULATION</b>	<b>TIME OF APPLICATION</b>	<b>REMARKS</b>
Logic bait	Bait	When ants are actively foraging (1.0-1.5 lbs/acre), broadcast	
Amdro ant block		0.75 lb/colony	