Insecticide Classes, Modes of Action and EPA Registration Numbers

It is important to know the classes of insecticides being used. Rotating insecticide classes or using mixes of insecticides with two or more modes of action is often recommended to help prevent resistance. Producers are also required to keep records, including EPA product registration numbers, of all insecticides applied to fields. Product registration numbers for products not listed below are provided on the insecticide labels.

Insecticide (IRAC Class)*	EPA Product Registration Number**
Acramite (UN)	400-514
Admire Pro (4A)	264-827
Agri-Mek (6)	100-898
Capture LFR (3A)	279-3302
Cypermethrin (3A)	279-3027-5905
Asana XL (3A)	352-515
Baythroid XL (3A)	264-840
Belay (4A)	59639-150
Besiege (3A, 28)	100-1402
Bidrin (1B)	5481-448
Bidrin XP II (3A, 1B)	5481-9024
Blackhawk (5)	62719-523
Brigade (3A)	279-3313
Brigadier (3A,4A)	279-3332
Carbine (9C)	71512-9-279
Centric (4A)	100-1147
Cobalt Advanced (3A,1B)	62719-615
Comite II (12C)	400-154
Counter (1B)	5481-545
Couraze Max (4A)	264-783-67760
Cruiser (4A)	100-941
Delta Gold (3A)	264-1011-1381
Declare (3A)	67760-96
Denim (6)	100 - 903
Diamond (15)	66222-35-400
Dimethoate (1B)	See label
Dimilin (15)	400-461
Di-Syston (1B)	264-734
Discipline (3A)	5481-517

Insecticide (IRAC Class)*	EPA Product Registration Number**
Endigo ZC (3A,4A)	100-1276
Fanfare (3A)	66222-99
Force (3A)	100-1075
Fyfanon Plus ULV (1B,3A)	67760-108
Gaucho (4A)	264-968
Hero (3A)	279-3315
Intrepid (18)	62719-442
Intrepid Edge (5, 18)	62719-666
Intruder (4A)	8033-24-10163
Lannate (1A)	352-384
Leverage 360 (3A,4A)	264-1104
Lorsban Advanced (1B)	62719-591
Malathion (1B)	See label
Mustang Max (3A)	279 – 3249
Oberon (23)	264-850
Orthene 90S (1B)	59639-33
Poncho (4A)	264-789
Pounce 25WP (3A)	279-3051
Portal (21A)	71711-19
Prevathon (28)	352-844
Radiant (5)	62719-545
Sevin XLR Plus (1A)	264-333
Sevin 80S (1A)	264-316
Sivanto Prime (4D)	264-1141
Steward (22A)	352-638
Transform WG (4C)	62719-625
Vydate CL-V (1A)	352-532
Warrior II (3A)	100-1295
Zeal (10B)	59639-123

* Insecticide mode of actions class as identified by Insecticide Resistance Action Committee: 1A, carbamates; 1B, organophosphates; 3A, pyrethroids; 4A-4D, neonicotinoid subclasses; 5, spinosyns; 6, avermectins; 9C, flonicamid; 10B, etoxazole; 12C, organosulfurs; 15, benzolureas; 18, diacylhydrazines; 21A, METI acaricides; 22A, oxadiazines; 23 = spiromesifen; 28, diamides; UN = unknown. ** Registration numbers change with company brands, although the product name or active ingredient may be the same. Check the label to be sure.

Additional Brand Names of Commonly Used Active Ingredients (Generic Insecticides)

Active Ingredients (Common Brand Names)	Additional Brands with Same or Similar Active Ingredient*
abamectin (Abba, Agri-Mek, Agri-Mek SC, Zoro)	Abamex, Epi-Mek, Reaper
acephate (Orthene 90, Orthene 97)	Acephate 90, Acephate 97, Livid 90WDG, Livid 97 Prill
bifenthrin (Brigade, Discipline, Fanfare)	Bifenthrin, Bifenture, Capture LFR, Reveal, Sniper, Tundra
bifenthrin + chlorpyrifos	Match-Up, Tundra Supreme
bifenthrin + imidacloprid (Brigadier)	Avenger Bold, Skyraider, Swagger, Tempestbri
chlorpyrifos (Lorsban Advanced, Nufos)	Chlorpyrifos, Govern, Lorsban, Warhawk, Vesper, Yuma
chlorpyrifos + λ-cyhalothrin (Cobalt Advanced)	Lambdafos
cypermethrin	Battery, Cypermethrin, Holster, Up-Cyde
dicrotophos (Bidrin 8E)	Dicromax 8
diflubenzuron (Dimilin 2L)	Cavalier 2L
esfenvalerate (Asana XL)	S-FenvalorStar, Zyrate
imidacloprid (Admire Pro, Couraze Max)	Advise Four, Alias, Imida, Imidacloprid, Nuprid, Pasada, Provoke, Wrangler
methoxyfenozide (Intrepid 2F)	Troubadour 2F
permethrin (Pounce 3.2E)	Ambush 2E, Arctic, Permastar AG, Permethrin 3.2, Perm-Up
spinosad (Blackhawk 36% WDG)	Success 2F
β-cyfluthrin (Baythroid XL)	Tombstone (= cyfluthrin)
γ-cyhalothrin (Declare)	Proaxis
λ-cyhalothrin (Karate, Warrior II)	Grizzly, Grizzly Too, Grizzly Z, Kendo, Lambda, Lambda-Cy, LambdaStar, Ravage, Silencer
Z-cypermethrin (Mustang Max)	Holster, Respect

* Read the insecticide label before making application. Although active ingredients are the same or very similar, brands often have different formulations, different labeled uses, and different use rates. This information is provided for educational purposes, and some of the additional brands listed above have not been independently evaluated by the University of Tennessee.

Protection of Honeybees and Other Pollinators

Pollinators, including honeybees, are a vital component of the ecosystem. Beekeepers are having difficulty maintaining the health of honeybee colonies. The careful use of pesticides, and insecticides in particular, can help prevent additional stresses on honeybee health. Many insecticide labels indicate that applications to field crops cannot be made when bees are foraging in fields unless pest populations exceed economic thresholds. However, there are additional steps that should be taken to mitigate the potential negative effects of pesticides on pollinators.

- Beekeepers, growers and pesticide applicators should communicate so that all parties know the location of beehives near agricultural fields. Apiaries should be clearly marked with the beekeeper's contact information.
- The beekeeper should try to select apiary locations that have natural barriers, such as tree lines, to mitigate exposure to insecticide drift.
- The beekeepers should avoid placing hives directly adjacent to agricultural fields that are likely to be sprayed with insecticides.
- If hives are close to field edges, the entrances should be directed away from the field when possible.
- In high-risk areas, growers or pesticide applicators should notify beekeepers when insecticides that are toxic to bees are likely to be applied.
- Pesticide applications should not be made in conditions where drift towards beehives or natural foraging habitats is likely to occur.
- When possible, avoid aerial application in high-risk areas where beehives or naturally occurring pollinator habitat is near agricultural fields.
- Make applications when bees are not active (i.e., early in the morning or especially late in the day) in sensitive areas or when many pollinators are observed foraging within a field.

The following table is a list of commonly used insecticides and the potential risk they pose to honeybees and other pollinators.

Relative Toxicity of Commonly Used Insecticides to Adult Honeybees*

Trade Name	Common Name	Hazards to Adults (residual toxicity)
Acramite	bifenazate	Moderate
Admire Pro	imidacloprid	high (3.5 days)
Agri-Mek, Abba	abamectin	moderate (0.5 day)
Asana	esfenvalerate	high (<1 day)
Baythroid XL, Tombstone	β–cyfluthrin, cyfluthrin	high (>1 day)
Besiege	chlorantraniliprole + λ-cyhalothrin	High
Blackhawk, Success	spinosad	moderate (<2 hours)
Brigade, Sniper, Fanfare	bifenthrin	high (1 day)
Carbine	flonicamid	Low
Centric	thiamethoxam	moderate to high
Comite	propargite	None
Cruiser	thiamethoxam (seed treatment)	none to very low
Cypermethrin	cypermethrin	high (<1 day)
Diamond	novaluron	High
Dimethoate	dimethoate	high (3.5 days)

Trade Name	Common Name	Hazards to Adults (residual toxicity)
Dimilin	diflubenzuron	None
Endigo	thiamethoxam + λ-cyhalothrin	High
Gaucho	imidacloprid (seed treatment)	none to very low
Intrepid	methoxyfenozide	None
Intruder, Strafer	acetamiprid	None
Leverage 360	imidacloprid + cyfluthrin	high (3.5 days)
Lorsban	chlorpyrifos	high (3.5 days)
Malathion	malathion	high (2 days)
Mustang Max	zeta-cypermethrin	high (<1 day)
Oberon	spiromesifen	Unknown
Orthene, Acephate	acephate (foliar)	high (2.5 days)
Portal	fenpyroximate	Unknown
Prevathon	chlorantraniliprole	moderate ?
Radiant	spinetoram	moderate (<2 hours)
Steward	indoxacarb	High
Warrior	λ-cyhalothrin	High
Vydate C-LV	oxamyl	high (4 days)
Zeal	etoxazole	Low

* Modified from UC Davis, http://www.ipm.ucdavis.edu/PMG/r114900911.html#REFERENCE.

Restricted Entry Intervals and Insecticide Performance Charts

The restricted entry interval (or re-entry interval) is the time period required by federal law between application of pesticides to crops and the entrance of workers into those crops without protective clothing. Re-entry intervals serve to protect workers from possible pesticide poisonings. Growers, scouts and other farm laborers must effectively communicate when and where pesticides have been applied. Reentry periods vary by product. Scouts should not enter fields without the required personal protective equipment (PPE) until all reentry intervals have expired.

Disclaimer: The following ratings are based on a general consensus from multiple efficacy trials across the Midsouth. Insecticides with a higher numerical rating are expected to give the best control of the target pest. Insecticide performance is often dependent upon the timing of an application. Some ratings are based on limited data, and local performance may vary depending on insecticide resistance levels and previous use of insecticides. **Ratings are shown for standard use rates and not all products rated for a pest are listed on the insecticide label. Please refer to the label before spraying any insecticide.**

Grain Sorghum Insecticide Performance Ratings

Insecticide	Restricted Entry Interval (hours)	Restricted use (R)	Chinch Bug	Sorghum Webworm	Corn Earworm	Fall Army-worm	Greenbug (Aphid)	Sugar-cane Aphid	Sorghum Midge	Stink Bug
Asana XL	12	X	7	3	6	5	8	0	8	7
Baythroid XL	12	X	7	3	6	5	8	0	8	7
Besiege	24	X	7	9	9	9	8	0	8	7
Blackhawk	4		0	9	6	8	0	0	5?	0
Declare	24	X	7	3	6	5	8	0	8	7
Diamond	12		0	9	4	9	0	0	4?	4
Dimethoate	48		5	5	0	5	8	3	8	5
Intrepid	4		0	5?	4	8	0	0	0	0
Lannate	48	X	5	7	7	8	7	3?	6	5
Lorsban	24	X	7	7	5	7	8	5	6	5
Mustang Max	12	X	8	3	6	5	8	0	8	7
Prevathon	4		0	9	9	9	0	0	0	0
Sevin	12		7	7	5	7	5	0	6	5
Transform	24		0	0	0	0	8?	8	0	4
Sivanto Prime	4		0?	0	0	0	9	9	0	0
Warrior	24	X	7	3	6	5	8	0	8	7

Rating Scale: 0 = no control, 10 = excellent. The performance ratings in the chart are for comparison purposes only and are not necessarily a measure of percent control.

Field Corn Insecticide Performance Rating

Insecticide	Restricted Entry Interval (hours)	Restricted Use (R)	Chinch Bug	Corn Earworm, Fall Armyworm	Cutworm	European or South-western Corn Borer	Flea Beetle	Grass-hopper	Green Stink Bug	Brown Stink Bug
Ambush / Pounce	12	X	7	5	8	5		7	4	3
Asana XL	12	X	7	6	8	6		7	8	4
Baythroid XL	12	X	7	6	8	6	6	8	8	4
Besiege	24	X	7	9	8?	9	6	8	8	4
Blackhawk	4		0	7	7	5	0	1	0	0
Brigade	12	X	7	6	8	7	6	8	8	7
Cobalt Adv.	24	X	7	7	8	7	6	8	8	5
Declare	24	X	7	6	8	6	6	8	8	4
Hero	12	X	7	6	8	7	6	8	8	7
Intrepid	4		0	3,7	7	8		0	0	0
Lannate	48	X	3	7	5	1		4	5	5
Lorsban	24	X	7	4	7	5		6	4	4
Malathion	12		1	2	0	1		5	7	7
Mustang Max	12	X	7	6	8	6	6	8	8	4
Prevathon	4		0	9	8?	9		6?	0	0
Sevin	12	X	3	4	5	2	8	5	4	4
Warrior	24	X	7	6	8	6	6	8	8	4

Rating Scale: 0 = no control, 10 = excellent. The performance ratings in the chart are for comparison purposes only and are not necessarily a measure of percent control.

Cotton Insecticide Performance Ratings

Insecticide	Restricted Entry Interval (hours)	Restricted Use (R)	Fall Armyworm	Beet Armyworm	Aphid**	Thrips	Western Flower Thrips	Cutworm	Grasshopper	Bollworm	Tobacco Budworm	Cabbage Looper	Soybean Looper	Saltmarsh Caterpillar	Plant Bug	Spider Mite**	Green Stink Bug	Brown Stink Bug	Whitefly
Admire Pro (imidacloprid)	12		0	0	4	3	1	0	2	0	0	0	0	0	5	0	2	2	3
Agri-Mek (abamectin)	12	X	0	0	0	0	0	0	0	0	0	0	0	0	3	7	0	0	0
Asana XL	12	X	5	2	0	4	3	8	6	7	2	8	2	5	2	0	8	4	2
Bacillus thuringiensis	4		1	1	0	0	0	0	0	4	5	6	6	2	0	0	0	0	0
Baythroid XL	12	X	5	2	0	4	2	8	7	7	2	8	2	5	3	0	8	4	4
Besiege	24	X	9	9?	0	4	2	8?	7?	9	9	9	8	9?	3	0	8	4	2
Bidrin	144	X	0	0	6	8	5	0	7	0	0	0	0	1	8	0	9	9	3
Bidrin XP II	144	X	5	2	6	8	5	8	7	7	2	8	2	5	8	5	9	9	3
Blackhawk	4		7	9	0	1	1	7	2	7	8	9	9	3	0	0	0	0	0
Brigade	12	X	5	2	0	4	2	6	8	7	2	8	2	5	4	5	8	7	4
Brigadier	12	X	5	2	4	5	5	8	7	7	2	8	2	5	6	5	8	7	6
Carbine	12		0	0	8	5	1	0	2	0	0	0	0	0	5	0	2	2	0
Centric	12		0	0	4	3	4	0	2	0	0	0	0	0	7	0	6	4	7
Comite	168		0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0
Confirm	4		8	8	0	0	0	2	0	4	4	7	7	8	0	0	0	0	0
Cypermethrin	12	X	5	1	0	4	3	8	6	7	1	6	1	5	2	0	8	4	1
Declare	24	X	5	2	0	4	2	8	7	7	2	8	2	5	2	0	8	4	2
Denim	12		8	9	0	1	1	7	2	7	7	9	9	3	2	5	0	0	0
Diamond	12		8	5?	0	1	1	1		4	4	6	6		7*	0	4*	4*	4*
Dimethoate	48		0	0	5	7	2	0	6	0	0	0	0	1	6	3	6	4	3
Endigo	24	X	5	2	4	6	4	8	7	7	2	8	2	5	7	0	8	7	8
Intrepid	4		8	9	0	0	0	5	0	5	6	9	9	9	0	0	0	0	0
Intrepid Edge	4		9	9	0	0	0	8	0	7	8	9	9	9	0	0	0	0	0
Intruder, Strafer	12		0	0	8	6	0	0	0	0	0	0	0	0	6	0	1	1	6
Lannate	72	X	7	4	5	1	0	5	6	4	4	7	7	4	3	0	5	3	0
Leverage 360	12	X	5	2	5	6	2	8	7	7	2	8	2	5	6	0	8	6	5
Lorsban	24	X	5	2	4?	4?		7	7	6	4	4	2		4	2	6	5	
Mustang Max	12	X	5	3	0	6	3	8	7	7	2	8	2	5	3	0	8	7	2
Oberon	12		0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	8?
Orthene (acephate)	24		5	3	3	7	5	6	8	5	5	7	4	3	9	0	6	9	7
Portal	12		0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	7?
Prevathon	4		9	9?	0	0	0	8?	7?	9	9	9	8	9?	2	0	0	0	0
Radiant	4		7	9	0	8	7	7?	2	7	8	9?	8?	9	0	0	0	0	0
Steward	12		8	9	0	0	0	5	0	7	8	9	9	5	3	0	3	3	0?
Transform	24		0	0	8			0	0	0	0	0	0	0	9	0	5	3?	7?
Vydate C-LV	48	X	0	0	0	4	1	0	6	0	0	0	0	0	6	0	8	7	0
Warrior	24	X	5	2	0	4	2	8	7	7	2	8	2	5	3	0	8	4	2
Zeal	12		0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0

Rating Scale: 0 = no control, 10 = excellent. The performance ratings in the chart are for comparison purposes only and are not necessarily a measure of percent control.

* Effective on nymphs only.

** Cotton aphids and spider mite populations can be flared by use of broad spectrum insecticides such as pyrethroids or OPs.

Soybean Insecticide Performance Ratings

Insecticide	Restricted Entry Interval (hours)	Restricted Use (R)	Stem Feeders			Defoliators								Defoliators and Pod Feeders				Pod Feeders	
			Cutworm	Kudzu Bug	Threecornered Alfalfa Hopper	Blister Beetle	Garden Webworm	Grasshopper	Green Cloverworm	Saltmarsh Caterpillar	Cabbage Looper	Soybean Looper	Spider Mite	Bean Leaf Beetle	Beet Armyworm	Fall Yellowstriped Armyworm	Corn Earworm	Green Stink Bug	Brown Stink Bug
Agri-Mek SC	12	X	0	0	0	0		0		0	0		8	0			0	0	0
Pounce (permethrin)	12	X		5	7	6	7	6	8	6	6	2	0	6	3	7	5	5	3
Asana XL	12	X	8	6	8	7	8	7	9	6	7	3	0	4	3	7	6	7	5
Bacillus thuringiensis	4		0	0	0	0	5	0	8	3	6	6	0	0	2	0	2	0	0
Baythroid XL	12	X	8	5	8	7	8	7	9	6	7	3	0	4	3	7	6	8	5
Belay	12		0	5	7?			3?		0	0	0	0	7?	0	0	0	7	7
Besiege	24	X	8?	8?	8	7	9?	7	9	9	9	8	0	7	9?	9?	9	8	5
Blackhawk	4		7	5	0	0	8	2	9	9	9	8	0	3	8	7	7	0	0
Brigade	12	X	9	9+	9	7	7	7	9	6	7	3	6	7	0	8	6	9	8
Declare	24	X	8	8	8	7	8	7	9	5	7	3	0	6	3	7	6	7	5
Dimethoate	48		0	8	6	5	5	7	3	1	2	2	4	6	2	4	2	8	6
Endigo	24	X	8	9	8	7	8	7	9	6	7	3	0	8	3	7	6	8	7
Hero	12	X	9	9	9	7	7	7	9	6	7	3	6	7	0	8	6	9	8
Intrepid	4		7?		0	0	8	0	8	8	9	8	0	0	8	8	4	0	0
Intrepid Edge	4		8	0	0	0	8	0	9	9	9	9	0	0	9	9	8	0	0
Lannate 2.4 LV	48	X	2	4	5	5	8	6	9	5	7	7	0	4	6	7	7	7	5
Leverage 360	12	X	8	5	8	7	8	7	9	6	7	3	0	7	3	7	6	8	6
Lorsban	24	X	7	7	5		5?	7	8	2?	4	2	4	5?	2	3?	6	6	5
Mustang Max	12	X	8	8	8	7	8	7	9	5	7	3	0	7	3	7	6	8	5
Orthene (acephate)	24		4?	7	8		6	8	8	2?	7	6	0	6	0	6?	6	8	9
Prevathon	4		8?	1	0	0?	9?	7?	9	9	9	8	0	4?	9?	9?	9	0	0
Radiant	4		7?	1	0	0?	8?	2?	9	9	9	8	0	3?	8?	7?	8	0	0
Sevin	12		5	8	3	8	3	7	8	5	1	1	0	8	3	6	6	5	4
Steward	12		9	2	0	0	8	0	9	6	9	8	0	7	8	8	8	3	2
Warrior	24	X	8	8	8	7	8	7	9	6	7	3	0	7	3	7	6	8	5
Zeal SC	12		0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0

Rating Scale: 0 = no control, 10 = excellent. The performance ratings in the chart are for comparison purposes only and are not necessarily a measure of percent control.

Small Grains Insecticide Performance Ratings (Wheat, Barley, Oats, Rye)

Insecticide	Restricted Entry Interval (hours)	Restricted use (R)	Armyworm	Greenbug (Aphids)	Grasshopper	Cereal Leaf Beetle
Baythroid XL	12	X	8	8	7	7
Besiege	24	X	9	8	8	7?
Blackhawk	4		8	0	2	7?
Declare	24	X	8	8	7	7
Dimethoate	48		0	7	6	4?
Lannate	48	X	7	7	3	8
Malathion	12		3	6	6	8
Mustang Max	12	X	8	8	7	7
Prevathon	4		9	0	7?	0?
Sevin	12		6	0	4	7
Warrior	24	X	8	8	7	7

Rating Scale: 0 = no control, 10 = excellent. The performance ratings in the chart are for comparison purposes only and are not necessarily a measure of percent control.

Insecticide Safety Considerations

Communication and safety are important considerations to avoid accidental insecticide poisoning. Scouts should be familiar with commonly used insecticides. Talk frequently with growers, co-workers and employers. Know when and what insecticide applications have been made to a field. Someone should know your approximate whereabouts and schedule in case of accident or emergency. Cellphones or two-way radios are suggested as a means of emergency communication.

Know Your Insecticides

Insecticides vary widely in their toxicity to people. Never enter a field immediately after an insecticide application. This is especially dangerous for highly toxic insecticides. Insecticide labels provide information on minimum restricted entry intervals following an insecticide application, treatment information in the case of poisoning, and other information. The table below provides a relative index of acute toxicity for some common insecticides. This is primarily for dermal (skin) exposure. Many relatively safe insecticides can be very dangerous if ingested because even insecticides with low toxicity are often mixed with chemicals that are dangerous if ingested. Always seek immediate medical attention if any insecticide is swallowed.

Relative Insecticide Toxicity of Some Representative Insecticides

Insecticide (common name)	**Risk level***	**Insecticide (common name)**	**Risk level***
Admire Pro or Gaucho (imidacloprid)	L	Intrepid (methoxyfenozide)	L
Asana XL (esfenvalerate)	L-M	Intruder, Strafer (acetamiprid)	L
Bacillus thuringiensis (Bt)	L	Lannate (methomyl)	**H**
Baythroid XL (β-cyfluthrin)	L-M	Lorsban (chlorpyrifos)	M
Bidrin (dicrotophos)	H	Malathion	L
Blackhawk (spinosad)	L	Mustang Max (Z-cypermethrin)	L-M
Brigade (bifenthrin)	L-M	Orthene (acephate)	L-M
Centric or Cruiser (thiamethoxam)	L	Prevathon (chlorantraniliprole)	L
Comite (propargite)	M	Sevin (carbaryl)	L
Counter (terbufos)	H	Sivanto Prime (flupyradifurone)	L
Cypermethrin	L-M	Steward (indoxacarb)	L
Delta Gold (deltamethrin)	L-M	Transform (sulfoxaflor)	L
Denim (emamectin benzoate)	L-M	Vydate C-LV (oxamyl)	**H**
Diamond (novaluron)	L	Warrior (λ-cyhalothrin)	L-M
Dimethoate	M-**H**		

* L = Low, M = Moderate, H = High

Insecticide Poisoning

Symptoms may include eye tearing, blurred vision, salivation, unusual sweating, coughing, vomiting, and frequent bowel movements and urination. Breathing may become difficult, and muscles may twitch and become weak. It is rare, but death can occur. Symptoms last hours to days after exposure to carbamate insecticides but can last for weeks after exposure to organophosphate insecticides. Pyrethroid insecticides can cause sneezing, eye tearing, coughing, and occasional difficulty breathing. Serious symptoms rarely develop.

Treatment for suspected insecticide poisoning should be immediate. Insecticide labels contain treatment instructions for physicians. Remove clothing and wash any skin which was exposed to insecticide.

Other Safety Considerations

Besides the risk of pesticide poisonings, and more common, scouts may suffer heat stroke. Symptoms of heat stroke include weakness, dizziness, rapid pulse, reddish tinge to skin, nausea and/or vomiting, unconsciousness, and high body temperature.

Safety Tips:

- Always follow label instructions concerning re-entry intervals and protective clothing requirements following an insecticide application.
- To avoid heat stroke, drink plenty of water, wear a wide-brimmed hat, and take breaks in the shade.
- Pants, rather than shorts are recommended to reduce wear and tear on your legs. They also keep your skin from contacting any insecticide residue on plants.
- Bring a change of clothes, particularly later in the year when early morning dew will soak your clothing. Not only will you be more comfortable, dry clothes are a better barrier to any insecticide residue that may be present on plants.
- Wash your hands before eating or drinking.
- If possible, schedule your hardest work during cooler times of the day.
- You are more likely to get in an automobile or four-wheeler accident than to be poisoned by pesticides, so drive carefully!