

GUTHION 25% WP

DIRECTIONS FOR USE

IMPORTANT: Read these entire Directions and Conditions of Sale, including the Warranty and Limitation of Damages provision, before using GUTHION 25% Wettable Powder.

CONDITIONS OF SALE: These Directions for Use reflect the opinion of experts based on tests of effectiveness, of toxicity to plants and laboratory animals and of residues on or in food and feed under normal conditions of use. However, because of the wide range of conditions under which this product may be used, even though label directions are followed, it is impossible to eliminate all risks associated with its use because of abnormal conditions beyond the control of the seller. Chemagro Corporation and the Seller offer, and the Buyer uses, this product subject to the understanding that the Buyer assumes all such risks.

MIXING: GUTHION Wettable Powder mixes easily with water to form a suspension which is readily usable in all conventional ground spray equipment. Mix the required amount of GUTHION Wettable Powder with a small quantity of water. Add this premix through the screen while filling the spray tank or fill the tank to the required level and add the premix. Operate the agitator while mixing.

DOSAGE: Use specified dosage of GUTHION Wettable Powder in the amount of water necessary to give complete coverage of foliage. The type of equipment used will determine the concentration required.

SPRAYING: Work to windward. Protect sprayer operators from drift or mist. When low volumes of spray are applied complete coverage and thorough application are essential for most effective results. Schedule applications in accordance with local conditions. Consult your State Agricultural Experiment Station or Extension Service for specific use information in your area.

RECOMMENDED GUTHION APPLICATIONS

CROP	INSECT	Pounds GUTHION 25%	REMARKS
<u>FIELD CROPS</u>			
Alfalfa Clover	Aphids Leafhoppers Mites	1 to 2	Apply specified dosage per acre using a minimum of 10 gallons of water per acre. It may be necessary to use 20 to 25 gallons of water per acre on heavy growth for control of alfalfa weevil or Egyptian alfalfa weevil. Do not apply within 14 days of harvest at the rates of 1 to 1 1/2 pounds per acre or within 16 days at the rate of 2 pounds per acre. Do not apply rates above 2 pounds per acre within 21 days of harvest. Do not apply more than once per cutting at any rate.
	Alfalfa weevil Egyptian alfalfa weevil	1 1/2 to 3	
	Alfalfa plant bug Fleahoppers Grasshoppers Lygus Bugs Spittlebug	2 to 3	

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RECOMMENDED GUTHION APPLICATIONS
(Continued)

CROPS	INSECT	Pounds GUTHION 25%	REMARKS
FIELD CROPS (Cont'd)			
Barley Oats Rye Wheat	Cereal leaf beetle	1 1/2 to 2	Apply specified dosage per acre in sufficient water for complete coverage. Do not apply more than once per season. Do not harvest for food, feed, forage or graze within 30 days of treatment.
Soybeans	Aphids Bean leaf beetle Green cloverworm Leafhoppers Leaf miners Leaf rollers Stink bugs Velvet bean caterpillar Mexican bean beetle	1 1/2 to 2 2 to 3	Apply specified dosage per acre in sufficient water to give complete coverage. Repeat as necessary. Do not apply within 45 days of harvest. Do not graze or feed treated vines to livestock.
Tobacco	Aphids Grasshoppers Tobacco hornworm Tobacco flea beetle Tobacco budworm	2 to 3 3	Apply specified dosage per acre in sufficient water for complete coverage. Treat for hornworms as soon as egg masses or worms are first found. Repeat as necessary but not within 6 days of harvest. Prime before treating.
FRUIT			
Apples Crab apples Pears Quinces	Aphids Apple maggot Codling moth European apple sawfly Eye-spotted bud moth Forbes scale Fruit tree leaf roller Green fruit worm Leafhoppers Mealybug Mites Orange tortrix Pear psylla Plum curculio Putnam scale Red-banded leaf roller San Jose scale Stink bug Tarnished plant	1 to 1 1/4	Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 1000 gallons of finished spray per acre. Repeat as necessary. Do not apply more than 8 times per season nor within 15 days of harvest. GUTHION is compatible with dormant and summer oils which may be added to apple and pear sprays in accordance with local recommendations. Do not use oils within 30 days of sulfur or lime-sulfur treatments.
Cherries	Eye-spotted bud moth Forbes scale Fruit flies Fruit tree leaf roller Cherry leaf miner Mineola moth	Lesser peach tree borer Mites Plum curculio San Jose scale 1	Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 800 gallons of finished spray per acre. Repeat as necessary. Do not apply more than 8 times per season nor within 15 days of harvest.

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RECOMMENDED GUTHION APPLICATIONS
(Continued)

CROP	INSECT	Pounds GUTHION 25%	REMARKS	
FRUIT (Cont'd)	Aphids	Platynota	Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 200 gallons of finished spray per acre. Repeat as necessary. Do not apply more than 8 times per season, within 21 days of harvest for apricots, nectarines, and peaches, nor within 15 days of harvest for plums and prunes. Apply the 1 1/2-pound rate for oriental fruit moth and peach twig borer on apricots, nectarines and peaches only before mid-season. For control of peach tree borer, apply 2 to 3 sprays to trunk from ground to scaffold limbs, timed with moth flight. For scale control, apply when crawlers are present. GUTHION is compatible with dormant and summer oils which may be added to peach and prune sprays in accordance with local recommendations. Do not use oils within 30 days of sulfur or lime-sulfur treatments. NOTE: It is suggested that when treating nectarines during bloom period, beekeepers should be warned well in advance to remove hives a safe distance from orchards to be treated.	
	Cottony peach scale	Hemiptera leaf roller		
	European fruit lecanium scale	Plum curculio		
	Apricots	Red-banded leaf roller		1 to 1 1/4
	Nectarines	Forbes scale		
	Peaches	Lesser peach tree borer		
		Stink bug		
		Mites		
		Peach tree borer		
		Terrapin scale		
	Walnut scale			
	White peach scale			
	Oriental fruit moth			
	Peach twig borer	1 to 1 1/2		
Nectarines	Thrips	1 to 1 1/4		
Plums Prunes	Aphids	Peach twig borer	Apply specified dosage per acre to foliage using approximately 200 gallons of water for good coverage. Repeat as necessary but not within 14 days of harvest. For control of root weevils and borers prior to harvest apply specified dosage per acre to lower portion of canes and to the soil beneath the plants using approximately 200 gallons of water. Do not apply more than twice per season. Do not make applications within 3 days of harvest at rates up to 4 pounds per acre. Rates above 4 pounds per acre should be applied only before fruit set or after crop is harvested.	
	Eye-spotted bud moth	Plum curculio		
	Forbes scale	Red-banded leaf roller		1 to 2
	Fruit tree leaf roller	San Jose scale		
	Lesser peach tree borer	Stink bug		
	Mites	Tarnished plant bug		
	Orange tortrix	Tussock moth		
	Peach tree borer			
	American plum borer			2
Black-berries Boysen-berries Logan-berries Rasp-berries	Leafhoppers		Apply specified dosage per acre to foliage using approximately 200 gallons of water for good coverage. Repeat as necessary but not within 14 days of harvest. For control of root weevils and borers prior to harvest apply specified dosage per acre to lower portion of canes and to the soil beneath the plants using approximately 200 gallons of water. Do not apply more than twice per season. Do not make applications within 3 days of harvest at rates up to 4 pounds per acre. Rates above 4 pounds per acre should be applied only before fruit set or after crop is harvested.	
	Leaf rollers	1		
	Leaf miners	1 1/4		
	Aphids	1 1/4 to 2		
	Obscure root weevil	2		
	Raspberry crown (root) borer	4 to 8		
	Obscure root weevil	2		

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RECOMMENDED GUTHION APPLICATIONS

(Continued)

CROP	INSECT	Pounds GUTHION 25%	REMARKS
FRUIT (Cont'd)			
Blueberries (Eastern and North Central States Only)	Blueberry maggot Fruitworms	2 to 3	Apply specified dosage per acre using approximately 200 gallons of water for good coverage. Repeat as necessary but not more than 4 times per season nor within 3 days of harvest. If multiple late season applications of GUTHION dust formulations are to be made for blueberry maggot control, then do not make more than two GUTHION spray applications per season with the last spray no later than June 15.
	Lecanium scale Plum curculio		
Cranberries	Cranberry fruitworm Sparanothis sulfureana Tipworm	2 to 4	Apply specified dosage per acre using approximately 200 gallons of water for good coverage. Repeat as necessary. Do not apply within 21 days of harvest.
	Fireworms	4	
	Aphids Black scale Brown soft scale Chaff scale Citricola scale Citrus mealybug Citrus rust mite Citrus thrips Cottony-cushion scale European brown snail Florida red scale Fruit tree leaf roller Fuller rose beetle Glover scale Orange tortrix Purple scale Snow scale Western tussock moth Whiteflies	1 to 1 1/2	
Citrus Fruits	California red scale Texas citrus mite Yellow scale	1 1/2	Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 2000 gallons of finished spray per acre. A single application per year may be applied up to within 7 days of picking. Where 2 applications are required, the second spray should not be applied within 28 days of harvest. Do not apply more than twice per fruit year. Do not pick fruit or do other work involving contact with the tree, such as pruning, within 7 days of treatment.
	Grape berry moth Grape cane girdlers Grape mealybug Leafhoppers Mites Red-banded leaf roller Thrips	1 to 2	
	Grapes	1 to 2	

RECOMMENDED GUTHION APPLICATIONS
 (Continued)

CROP	INSECT	Pounds		REMARKS
		GUTHION 25%	WATER	
FRUIT (Cont'd)				
Straw-berries	Aphids Meadow spittlebug Oblique-banded leaf roller Obscure root weevil Omnivorous leaf tier Peanut leaf weevil Small black (grass) weevil Strawberry leaf rollers Whitefly	2		Apply specified dosage in 100 gallons of water per acre as a full coverage spray.* Repeat as necessary. Do not apply within 5 days of harvest.
NUTS				
Almonds	Peach twig borer	1 1/2 to 2		Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 500 gallons of finished spray per acre. Do not apply more than twice per season nor within 60 days of harvest. Allow 30 days between applications.
Filberts (Pacific Northwest Only)	Apple mealybug Filbertworm Filbert aphid Filbert leaf roller	1 to 3		Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 1000 gallons of finished spray per acre. Repeat as necessary. Do not apply within 30 days of harvest. Do not graze livestock in treated groves for 21 days after treatment.
Pecans	Aphids Fall webworm Hickory shuckworm Leaf miners May beetles Mites Pecan casebearer Southern green stink bug Spittlebugs Twig girdlers Walnut caterpillars	1 1/2 to 2 1/4		Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 1800 gallons of finished spray per acre. Repeat as necessary. Do not apply after husks split. Where more than 22 1/2 pounds of GUTHION Wettable Powder are applied per acre in a single application do not graze livestock in treated groves. Where 22 1/2 pounds or less of GUTHION WP are applied per acre, livestock may be grazed in treated groves after a 21-day post-treatment interval.
Walnuts	Aphids Codling moth European red mite Filbertworm	1 1/2 to 3 3/4		Apply specified dosage in 100 gallons of water as a full coverage spray* using not more than 1100 gallons of finished spray per acre. Repeat as necessary. Do not apply after husks split. Do not graze live stock in treated groves for 21 days after treatment.

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RECOMMENDED GUTHION APPLICATIONS

(Continued)

CROP	Pests	Pounds		REMARKS
		GUTHION 25%		
VEGETABLES (Continued)				
Celery	Aphids			Apply specified dosage in 100 gallons of water as a full coverage spray* or in not more than 200 gallons of diluted spray per acre. Repeat as necessary but not within 14 days of harvest.
	Leaf miners			
	Leafhoppers	2		
	Spittlebug			
Blackeyed peas (Southern peas, Crowder peas)	Tarnished plant bug			Apply specified dosage per acre in sufficient water for complete coverage. Do not apply more than 4 times per season nor within 7 days of harvest. Do not use vines for feed or forage nor pasture treated areas.
	Corn earworm			
	Cowpea curculio	3 to 4		
	Leaf miners			
Cucumbers	Stink bugs	1 1/2 to 2		Apply specified dosage per acre in sufficient water for complete coverage. Do not apply more than 3 times per season nor within 1 day of harvest.
	Spotted cucumber beetle			
	Striped cucumber beetle	2		
	Western-striped cucumber beetle			
Eggplant	Leaf miners	1 1/2 to 2		Apply specified dosage per acre in sufficient water to give complete coverage. Repeat as necessary. Do not apply after fruit set.
	European corn borer			
	Leaf beetles	2		
Onions (Green & Dry)				Apply specified dosage per acre in sufficient water to give complete coverage. Do not apply more than 3 times per season nor within 28 days of harvest of dry onions or 7 days of harvest of green onions.
	Thrips	2 to 3		
Peppers				Apply specified dosage per acre in sufficient water to give complete coverage. A maximum of 4 treatments may be made up to within 3 days of harvest. Where more than 4 applications are required, do not apply last spray within 14 days of harvest.
	Leaf miners	1 1/2 to 2		
	European corn borer	2		
Potatoes	Leaf beetles			Apply specified dosage per acre in sufficient water for complete coverage. Repeat as necessary. Do not apply within 7 days of harvest.
	Leafhoppers			
	Spittlebugs			
	Tarnished plant bug			
	Colorado potato beetle	1 1/2		
	Colorado potato beetle			
	Colorado potato beetle	1 1/2 to 2		
Spinach	European corn borer	2 to 3		Apply specified dosage per acre in sufficient water for complete coverage. Repeat as necessary. Do not apply within 7 days of harvest.
	Aphids			
	Leaf miners	1 1/2 to 2		

RECOMMENDED GUTHION APPLICATIONS (Continued)			
CROP	INSECT	Pounds GUTHION 25%	REMARKS
VEGETABLES (Cont'd)			
Tomatoes	Colorado potato beetle	1 1/2	Apply specified dosage per acre in sufficient water for complete coverage. Repeat as necessary.
	Spined cucumber beetle		
	Drosophila		
	Green stink bug	1 1/2 to 2	
	Leaf miners		
	Whitefly		
	Aphids		
	European corn borer		
	Flea beetles	2 to 3	
	Grasshoppers		
	Hornworm		
	Leafhoppers		
	Thrips		
	Tubercles	2 1/4 to 3	
Tomato fruitworm			
Fruitworm			
Plumworm	3		
Yellow-striped armyworm			
MELONS			
Honeydew Melons	Leafhoppers	1 1/2 to 2	Apply specified dosage per acre in sufficient water to give complete coverage. Repeat as necessary up to the day of harvest but not more than 4 times per season.
Muskmelons (Cantaloupe)	Leaf miners		
Watermelons	Kindworms		
Other melons	Spotted cucumber beetle	2	
	Striped cucumber beetle		
	Western-striped cucumber beetle		
ORNAMENTALS			
Ornamentals, Nursery Plants, Forest & Shade Trees	Aphids		Apply specified dosage per 100 gallons of water (4 level teaspoons per gallon). Spray all foliage surfaces including the underside of leaves for complete coverage. For control of black pine leaf, brown soft, European elm, and Putnam scales, use 3 level tablespoonfuls per gallon. Repeat as necessary.
	Cercospora scale		
	Phonyx scale		
	Juniper scale		
	Lace bug	1 1/2 to 2	
	Leafhoppers		
	Mites		
	Elm scale		
	Watermelon scale		
	Putnam scale		
	Black soft scale	4	
	Putnam scale		
	Black pine leaf scale		
	Scale	to 4	

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Directions for Use

CROP	Rate	Application
ORNAMENTALS (Continued)		
Ornamentals, Nursery Plants, Forest & Shade Trees (Continued)	Apply specified amount per 100 gallons of water. Make applications to coincide with new flight when cones are present. Thorough coverage of cones is necessary for maximum control. Repeat as necessary.	
		Apply specified dosage per acre in sufficient water for good coverage. Make applications to coincide with new flights. For application to ornamental trees use 2 level tablespoonfuls of GUTHION 25% Wettable Powder per gallon of water.
		Do not spray under wind on treated area until material has been washed into soil and treated area is dry.
Slash Pine	Cones: 6 Seedling:	Apply specified dosage per 100 gallons of water. Thorough coverage of cones is necessary for maximum control. Repeat as necessary.

*This GUTHION dosage is intended for use with hydraulic-type sprayers. When lower volumes of spray are applied, as with cone sprayers, increase the concentration of GUTHION in the spray mixture in order to apply amount of GUTHION per acre equivalent to a full coverage spray.

Applications should be made as directed on this label provided they are made in accordance with the directions and are not to be used for feed, food, or storage purposes. For more information regarding timing or applications, consult your State or Federal Plant Industry Section or Extension Service.

Do not use on other crops than those specified on the label according to label directions. Application to other crops may result in illegal crop residues. Do not use on citrus groves for 21 days after treatment. Do not treat field crops, ornamentals, or greenhouses.

Highly toxic to fish and aquatic life. Do not apply to any area and species of water not apply to any area and species of water.

Do NOT apply to any area where the chemical will be used for the purpose of treating water supplies.

Burn the empty container and contents in a safe place or burn it well away from the house.

Do not use on ornamentals, forest trees, or shade trees.

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DANGER

Poisonous if swallowed, inhaled, or absorbed through the skin. Do not get in eyes or on skin. Use protective clothing or apron and gloves. Spray operator should work to windward to stay out of drift of spray. 3/25-25

When loading spray tank or handling the powder at any other time, wear protective clothing, natural rubber gloves and goggles. A mask or respirator recommended by the U.S. Department of Agriculture for protection against diphtheria should be worn when handling the powder.

Do not contaminate feed or foodstuffs. Keep out of reach of children and domestic animals. Keep all unprotected persons out of the operating area or vicinity where there may be danger of drift. Wash hands, arms, and face thoroughly with soap and warm water before eating or smoking. Wash all contaminated clothing with soap and hot water before reuse.

SYMPTOMS OF POISONING: A sense of "tightness" in the chest. Sweating. Contracted pupils. Stomach pains. Vomiting and diarrhea.

TREATMENT: In case of poisoning call a physician immediately. Have patient lie down and keep quiet. If swallowed, induce vomiting by giving a tablespoonful of salt in a glass of warm water. Administer milk or water freely and again induce vomiting until vomit fluid is clear. If on skin, remove contaminated clothing and wash skin immediately with soap and warm water. If eyes are contaminated, wash with flowing water for at least 15 minutes.

POISON

TO PHYSICIAN:

ANTIDOTE - Administer atropine sulfate in large therapeutic doses. Repeat as necessary to the point of tolerance. 2-PAM is also antidotal and may be administered in conjunction with atropine.

Compound inhibits cholinesterase resulting in stimulation of the central nervous system, the parasympathetic nervous system, and the somatic motor nerves. Do not give morphine. Watch for pulmonary edema, which may develop in serious cases of poisoning even after 12 hours. At first sign of pulmonary edema, the patient should be placed in an oxygen tent and treated symptomatically.

WARRANTY AND LIMITATION OF DAMAGES

Chemagro Corporation warrants that this material conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the Directions for Use and Conditions of Sale; subject to the risks referred to therein. Chemagro Corporation makes no other express or implied warranty, including any other express or implied warranty of FITNESS OR MERCHANTABILITY, and no agent of Chemagro Corporation is authorized to do so except in writing, with a specific reference to this warranty. Any damages arising from a breach of this warranty shall be limited to direct damages, and shall not include consequential or special damages such as loss of profits or values, etc.

GUTHION is reg. U. S. Pat. and Canadian Pat. No. 213, 174 by Farbwerke Bayer A.G., Chemagro Corporation licensee.

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Above label text and directions were revised and label texts dated 7/11/66, 1/30/67 and 5/4/67 previously registered with the Federal Bureau of Investigation.