



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

# MAY 2 4 2011

Dr. Jamin Huang Bayer CropScience P.O. Box 12014, 2 T.W. Alexander Drive Research Triangle Park, NC 27709

Subject: Delete Statement Indicating Insecticide Formulated for Specified Crop Use

Dear Dr. Huang:

The Agency is in receipt of your Application(s) for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 dated May 6, 2011 for:

EPA Reg. No. 264-828

# Gaucho 600 SC Insecticide

The Registration Division (RD) has conducted a review of this request for applicability under PRN 98-10 and finds that the label change(s) requested falls within the scope of PRN-98-10. The label has been date-stamped "Notification" and will be placed in our records.

If you have any questions, call me at 703 305-5409 or electronically at daniel.dani@epa.gov.

Sincerely,

Dani Daniel Registration Division (7504P) Insecticide/Rodenticide Branch

Please read instructions on p		NOTI	FINATION	Form Amprove	CAAD No.	9	{ }
SEPA	Environmenta	Jnited States,	on Agantey	Form Approve	Registra Amend Other	ation	O. Approvel expires 2-28-9 OPP Identifier Number
		Applicati	on for Pestic	ide - Section	n I		
1. Company/Product Number	r 264-828		2. EPA	Product Manager Venus Eagle		3. Pr	oposed Classification
4: Company/Product-(Name) Gaucho 600	SC Insecticide		PM#	Team 01			Hone House
5. Name and Address of App Bayer CropScience P.O. Box 12014, 2 T.\ Research Triangle Pa	W. Alexander Dri		(b)(i), r to: EPA	my product is sir Reg. No uct Name			FIFRA Section 3(c)(3) mposition and labeling
			Section -	!!			
Amendment - Explain  Resubmission in resp  Notification - Explain	onse to Agency letter	dated		Final printed lab Agency letter da "Me Too" Applio Other - Explain b	ated cation.	e to	
Explanation: Use addition REGFEE: Notification per PF Justifications: Submit an am CropScience is the owner of 4,742,060; 6,297,263; 6,114, 9/21/2009) via Notification pe CONTACT: Jamin Huang, i	RN 98-10 ended label to delete "C United States patent rig 362; 6,218,407; 6,060,4 er PR Notice 98-10. Ser	Gaucho 600 SC ghts to method: 489; 6,372,737 e attached cov	C Insecticide is espects and composition of 5,444,667; and 5,4 yer letter.	overing certain use: 55,256." from the 1	s, particularly t	he following	g United States patents:
			Section - I	/ <b>[ ]</b>			
1. Material This Product Will Child-Resistant Packaging Yes No * Certification must be submitted	Unit Packaging  Yes  No  If "Yes" Unit Packaging wgt.	No. per . container	Water Soluble F  Yes  ✓ No  If "Yes"  Package wgt	Packaging No. per container	2. Type of	Container  Metal Plastic Glass Paper Other (S	pecify)
3. Location of Net Contents	Information	4. Size(s) Re	etail Container		ocation of La	oel Directio	ins
	ontainer		oz, 140 fl. oz, 250 g	l r	<u>,                                     </u>		
6. Manner in Which Label is	Affixed to Product	J Lithog Paper Stenc	graph r glued ciled	Other			
			Section - I	V			
1. Contact Point (Complete	items directly below f	or identification	on of individual to b	e contacted, if ne	cessary, to pi	ocess this	application.)
Name Jamin Huang	g, Ph.D.		Title Senior Reg	ulatory Manager			No. (Include Area Code)
l certify that the stater l acknowledge that an both under applicable l	y knowlinglly false or		d all attachments th				6. Cate Application Preceived (Stamped)
2. Signature	- (land		3. Title Senior Reg	gulatory Manager	c c t	{	
4. Typed Name			5. Date	•	•		

Jamin Huang, Ph. D.

May 6, 2011

# Bayer CropScience



May 6, 2011

Document Processing Desk (NOTIF) Office of Pesticide Programs (7505C) **Registration Support Branch** U.S. Environmental Protection Agency Room S-4900, One Potomac Yard 2777 South Crystal Drive Arlington, Virginia 22202-4501

**Attention:** Paul Mastradone (Team Leader, Notifications & Minor

Re: Notification per PR Notice 98-10

Formulation Review)

Gaucho 600 SC Insecticide (EPA Reg. No. 264-828)

Dear Mr. Mastradone,

Bayer CropScience is herein submitting an amended label to delete "Gaucho 600 SC Insecticide is especially formulated for use on crops as specified in this label. Bayer CropScience is the owner of United States patent rights to methods and composition covering certain uses, particularly the following United States patents: 4,742,060; 6,297,263; 6,114,362; 6,218,407; 6,060,489; 6,372,737; 6,444,667; and 5,455,256." from the 10/8/2009 approved label (Notification dated 9/21/2009) via Notification per PR Notice 98-10.

"This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46 and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA."

In support of the above-described amendment, we are herein submitting the following:

cccccc

Bayer CropScience 2 T.W. Alexander Drive P. O. Box 12014 Research Triangle Park. NC 27709

Tel: 919 549-2000

- 1. EPA Form 8570-1 dated May 6, 2011.
- 2. Three (3) copies of amended label for Gaucho 600 SC Insecticide dated 5/6/2011
- 3. One (1) copy of the above amended labeling with the deleted statement in red with strikethrough, in relation to the latest approved labeling dated 10/8/2009.

Please contact me at <u>jamin.huang@bayer.com</u> or at 919-549-2634 if you have any questions regarding this submission.

cree.

Sincerely,

Jamin Huang, Ph.D

Senior Regulatory Manager

# NOTIFICATION

MAY 2 4 2011



# GAUCHO® 600 SC Insecticide

For-uses-in-pest-management, suppression of insect that may vector diseases and mainten	nance of plant health.
ACTIVE INGREDIENT:	
Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine	48.7%
INERT INGREDIENTS:	<u>51.3%</u>
	100.0%
EPA Reg. No. 264-828	EPA Est. No. 3125-MO-001
Contains 5 pounds of imidacloprid per gallon.	SHAKE WELL BEFORE USING

# STOP - Read the label before use KEEP OUT OF REACH OF CHILDREN CAUTION

For <u>MEDICAL</u> And <u>TRANSPORTATION</u> Emergencies <u>ONLY</u> Call 24 Hours A Day 1-800-334-7577 For <u>PRODUCT USE</u> Information Call 1-866-99BAYER (1-866-992-2937)

# **FIRST AID**

IF ON SKIN OR CLOTHING:	Take off contaminated clothing.	
	Rinse skin immediately with plenty of water for 15 to 20 minutes.	
	Call a poison control center or doctor for treatment advice.	
IF INHALED	Move person to fresh air.	
	If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.	
	Call a poison control center or doctor for further treatment advice.	
IF SWALLOWED:	Call a poison control center or doctor immediately for treatment advice.	
	Have person sip a glass of water if able to swallow.	
	Do not induce vomiting unless told to do so by a poison control center or doctor.	
	Do not give anything by mouth to an unconscious person.	
	emergency call toll free the Bayer CropScience Emergency Response Telephone No. 1-800-334-7577. duct container or label with you when calling a poison control center or doctor, or going for treatment.	
Note To Physician: No speci	fic antidote is available. Treat the patient symptomatically.	

# PRECAUTIONARY STATEMENTS

# HAZARDS TO HUMANS AND DOMESTIC ANIMALS CAUTION

Harmful if swallowed or absorbed through skin or if inhaled. Avoid contact with skin, eyes, or clothing. Avoid breathing spray mist. Wear long-sleeved shirt and long pants, socks, shoes and chemical-resistant gloves (such as natural rubber, section Category A). Applicators and Other Handlers Must Wear:

# Long-sleeved shirt and long pants

- Chemical-resistant gloves made of any waterproof material such as, barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton.
- · Shoes plus socks

Follow manufacturer's instructions for cleaning/ maintaining personal protective equipment, PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

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#### **ENGINEERING CONTROLS STATEMENTS**

• When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **User Safety Recommendations:**

#### User should:

- Wash-hands-before eating, drinking, chewing gum, using tobacco or using the toilet.
- · Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

# **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area. This product is toxic to wildlife and highly toxic to aquatic invertebrates.

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

OBSERVE THE FOLLOWING PRECAUTIONS WHEN MIXING AND APPLYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES; RESERVOIRS; RIVERS; PERMANENT STREAMS, MARSHES OR NATURAL PONDS; ESTUARIES AND COMMERCIAL FISH FARM PONDS.

#### Spray Drift Management

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions. <u>Avoiding spray drift is the responsibility of the applicator.</u>

# Importance of Droplet Size

An important factor influencing drift is droplet size. Small droplets (<150 - 200 microns) drift to a greater extent than large droplets. Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that provides sufficient control and coverage. Formation of very small droplets may be minimized by appropriate nozzle selection.

#### Wind Speed Restrictions

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed. Do not apply when winds are greater than 15 mph and avoid gusty and windless conditions. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

#### **Restrictions During Temperature Inversions**

Do not make ground applications during temperature inversions. Drift potential is high during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however if fog is not present, inversions can also be identified by the movement of smoke from a ground source. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical mixing.

### Mixing and Loading Requirements

To avoid potential contamination of groundwater, the use of a properly designed and maintained containment pad for mixing and loading of any pesticide into application equipment is recommended. If containment pad is not used, maintain a minimum distance of 25 feet between mixing and loading area and potential surface to groundwater conduits such as field sumps, uncased well heads, sinkholes, or field drains.

# No-Spray Zone Requirements for Soil Applications

Do not apply within 25 feet, of lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries and commercial fish farm ponds.

#### **Runoff Management**

Do not cultivate within 10 feet of the aquatic areas to allow growth of a vegetative filter strip. When using GAUCHO on erodible soils, Best Management Practices for minimizing runoff should be employed. Consult your local Natural Resources Conservation Service for recommendations in your use area.



#### **Endangered Species Notice**

Under the Endangered Species Act, it is a Federal Offense to use any pesticide in a manner that results in the death of a member of an endangered species. Consult your local county bulletin, County Extension Agent, or Pesticide State Lead Agency for information concerning endangered species in your area.

#### Resistance Management

Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area.

-GAUCHO®-600-SC-contains a Group 4A insecticide. Insect biotypes with acquired or inherent resistance to Group 4A insecticides may eventually dominate the insect population if Group 4A insecticides are used repeatedly as the predominant method of control for targeted species.

The active ingredient in GAUCHO is a member of the neonicotinoid chemical class. Insect pests resistant to other chemical classes have not shown cross-resistance to GAUCHO. In order to maintain susceptibility to this class of chemistry in insect species with high resistance development potential, it is recommended that for each crop season: 1) only a single, soil application of GAUCHO be made; 2) foliar applications of products from this same class not be made following a long residual, soil application of GAUCHO, or other neonicotinoid products.

Other Group 4A, neonicotinoid products used as foliar treatments include: Actara, Assail, CALYPSO, Centric, Clutch, Couraze, Gallant, Impulse, Intruder, LEVERAGE, Nuprid, Pasada, PROVADO, TRIMAX PRO and Venom.

Other Group 4A, neonicotinoid products used as soil/seed treatments include: Advise, Alias, Belay, Couraze, Cruiser, GAUCHO, Macho, Macho Max, Nuprid, Platinum, Venom and Widow.

Contact your Cooperative Extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations. Also, for more information on Insect Resistance Management (IRM), visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org/.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

**Exception:** If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material such as, barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton
- Shoes plus socks

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

Pesticide Storage: Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

Handle and open container in a manner as to prevent spillage. If the container is leaking, invert to prevent leakage. If container is leaking or material spilled for any reason or cause, carefully dam up spilled material to prevent runoff. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away. You may contact the Bayer CropScience Emergency Response Team for decontamination procedures or any other assistance that may be necessary. The Bayer CropScience Emergency Response telephone number is 1-800-334-7577.

Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal: Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Offer for recycling, if available or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

#### **Application**

Direct applications of GOUCHO into the seed or root-zone of crop. Failure to place GAUCHO into root-zone may result in loss of control or delay in onset of activity. GAUCHO may be applied with ground or chemigation application. Do not apply with aerial application equipment. Broadcast, foliar applications are only recommended to seedling flats or trays, or where product is intended to be washed from foliage to soil prior to drying on foliage.

Optimum activity of GAUCHO results from applications to the root-zone of plants to be protected. The earlier GAUCHO is available to a developing plant, the earlier the protection begins. GAUCHO is continuously taken into the roots over a long period of time and the systemic nature of GAUCHO allows movement from roots through the xylem tissue to all vegetative parts of the plant. This results in extended residual activity of GAUCHO, the control of insects and the prevention and/or reduction of virus transmission or symptom expression, and plant health benefits. The rate of GAUCHO applied affects the length of the plant protection period. Use higher rates when infestations occur later in crop development, or where pest pressure is continuous. GAUCHO will generally not control insects infesting flowers, blooms or fruit. Additional crop protection may be required for insects feeding in, or on these plant parts and for insects not listed in the crop-specific, pests controlled sections of this label. Additional, specific Gaucho applications are also provided in the crop-specific sections of this label.

Suppression, or less than complete control of certain diseases and insect pests including reduced feeding may also result from GAUCHO applications. Complete control of these pests/diseases may require supplemental control measures.

Make Application only to plants grown for production of true seed intended for private or commercial planting is generally not recommended but may be allowed under State specific, supplemental labeling. As with any insecticide, care should be taken to minimize exposure of GAUCHO to honey bees and other pollinators. Additional information on GAUCHO uses for these crops and other questions, may be obtained from the Cooperative Extension Service, PCAs, consultants or local Bayer CropScience representatives.

Make application only to plants grown in field-type soils, potting media, or mixtures thereof. Do not apply to plants grown in non-soil medias such as perlite, vermiculite, rock wool or other soil-less media, or plants growing hydroponically.

Premix Gaucho with water or other appropriate diluent prior to application. Keep GAUCHO and water suspension agitated to avoid settling.

Do not apply more than 0.5 lb active ingredient per acre, per crop season, regardless of formulation or method of application, unless specified within a crop-specific, Applications section for a given crop.

Additional Product Use information may be obtained by calling 1-866-99BAYER (1-866-992-2937).

# **Mixing Instructions**

GAUCHO is a suspension concentrate (flowable) formulation with unique qualities; shake well prior to measuring/mixing. The formulation is thixotropic and after sitting for a short time reverts to a gel or thick paste consistency helping to prevent phase separation common to most "flowables". After moderate shaking the formulation thins to a relatively non-viscous liquid which pours and measures easily with very few trapped air bubbles - another common problem of most flowables.

GAUCHO has demonstrated easy mixing/blooming in water with varying degrees of hardness and temperature. GAUCHO has demonstrated good mixing and compatibility with many fluid fertilizers without dilution with water. However, because fertilizers vary widely in quality and composition it is suggested that a jar test be performed (see Compatibility Note below) prior to full-scale mixing.

To prepare the application mixture, add a portion of the required amount of water/fertilizer to the tank and with agitation add GAUCHO. Complete filling tank with balance of water/fertilizer needed. Maintain sufficient agitation during both mixing and application. GAUCHO may also be used with other pesticides. **Please see Compatibility Note below.** When tank mixtures of GAUCHO and other pesticides are involved, prepare the tank mixture as recommended above and follow suggested Mixing Order below.

#### Mixing Order

When pesticide mixtures are needed, add wettable powders or wettable granules first, GAUCHO and other suspension concentrate (flowable) products second, and emulsifiable concentrates last. Ensure good agitation as each component is added. Do not add an additional component until the previous is thoroughly mixed. If a fertilizer solution is added or used as the diluent, a fertilizer/pesticide compatibility agent may be needed. Maintain constant agitation during both mixing and application to ensure uniformity of spray mixture.

#### **Compatibility Note**

Test compatibility of the intended mixture before adding GAUCHO to the spray or mix tank. Add proportionate amounts of each ingredient in the appropriate order, to a pint or quart jar, cap, shake for 5 minutes, and let set for 5 minutes. Poor mixing or formation of precipitates that do not readily redisperse indicates an incompatible mixture that should not be used. For further information, contact your local Bayer CropScience representative.

#### **CHEMIGATION - DIRECTIONS FOR USE**

#### Types of Irrigation Systems

Chemigation applications of GAUCHO may only be made to crops through chemigation systems as specified in crop-specific, Recommended Application sections and only through low-pressure systems unless specifically recommended for a given crop. Do not apply GAUCHO through any other type of irrigation system.

### **Uniform Water Distribution and System Calibration**

The irrigation system must provide uniform distribution of treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, you should contact Cooperative Extension Service specialists, equipment manufacturers or other experts.

#### **Chemigation Monitoring**

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

#### Drift

Do not apply when wind speed favors drift beyond the area intended for treatment.

# **Required System Safety Devices**

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

# **Using Water from Public Water Systems**

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward the injection. The pesticide injection pipeline must contain a functional normally closed solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.



# **ROTATIONAL CROPS\***

Treated areas may be replanted with any crop specified on an imidacloprid label, or any crop for which a tolerance exists for the active ingredient, as soon as practical following the last application. For crops not listed on an imidacloprid label, or for crops for which no tolerances for the active ingredient have been established, a 12-month plant-back interval is required.

#### IMMEDIATE PLANT-BACK:

All crops on this label plus the following crops not on this label: barley, canola, corn (field, pop & sweet), rapeseed, sorghum, soybean, sugarbeet and wheat.

#### 30-DAY PLANT-BACK:

Cereals (including buckwheat, millet, oats, rice, rye, and triticale), safflower

# 10-MONTH PLANT-BACK:

Onion and bulb vegetables

#### 12-MONTH PLANT-BACK:

All Other Crops

\* Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed.

# **FIELD CROPS**

### Applications - GAUCHO 600 SC Insecticide

#### COTTON

Pests Controlled	Rate fluid ounces/1000 row-feet	Rate fluid ounces/Acre
Cotton aphid		
Plant bugs	0.52	6.8 - 8.4
Thrips		(Depending on row-spacing)
Whiteflies		

#### Restrictions

Maximum GAUCHO allowed per crop season: 8.4 fluid ounces/Acre (0.33 lb Al/Acre)

Regardless of formulation or method of application, apply no more than 0.5 lb active ingredient per acre per season, including seed treatment, soil <u>and</u> foliar uses. Do not apply more than a total of 6 applications of the active ingredient per season. Do not graze treated fields after any application of GAUCHO. Please see Resistance Management section of this label.

#### **Applications**

Apply specified dosage in one of the following methods:

- 1. In-furrow spray during planting directed on or below seed;
- 2. In a narrow band directly below the eventual seed row in a bedding operation 7 or fewer days before planting;
- 3. Chemigation into root-zone through low-pressure drip or trickle irrigation.

#### PEANIIT 1/

Pests Controlled	Rate fluid ounces/Acre
Aphids Leafhoppers Whiteflies	6.4 – 9.6
Pest Suppressed	
Thrips	6.4 – 9.6

#### Restrictions

Pre-Harvest Interval (PHI): 14 days

Maximum GAUCHO allowed per season: 9.6 fluid ounces/Acre (0.38 lb Al/Acre)

#### **Applications**

Apply specified dosage in one of the following methods:

- 1. In-furrow spray during planting directed on or below seed;
- 2. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.

#### Important Note

Increases in Tomato spotted wilt virus (TSWV) incidence have been observed with applications of GAUCHO on multiple varieties of peanut. This may also be the case with other tospoviruses, or other viruses transmitted by various thrips species or perhaps, other pests. Prior to applying GAUCHO to peanuts, Bayer CropScience recommends consultation with the State, Cooperative Extension Service, or Bayer CropScience representative, for recommendations. Growers are advised to weigh insect control benefits against potential increase in viral disease levels. In areas where TSWV or other tospovirus are endemic, growers are encouraged to use virus resistant varieties and consult the University of Georgia, Tomato spotted wilt virus index, before applying GAUCHO.

<sup>1/</sup> Use not permitted in California unless otherwise directed by supplemental labeling.

#### **POTATO**

Pests Controlled	Rate fluid ounces/1000 row-feet	Rate fluid ounces/Acre
Aphids	Í	
Colorado potato beetle		
Flea beetles	0.36 – 0.52	5.2 - 8.0
Leafhoppers	·	
Potato psyllid		
Pests / Diseases Suppressed		
Symptoms of:		
Potato leaf roll virus (PLRV)		
Potato yellows	0.36 – 0.52	5.2 – 8.0
Net necrosis	0.00	5.2 0.0
Wireworms (with in-furrow spray at- planting)		

#### Restrictions

Maximum GAUCHO allowed per crop season: 8.0 fluid ounces/Acre (0.31 lb Al/Acre)

# **Applications**

Apply specified dosage in one of the following methods:

- 1. In-furrow spray during planting directed on seed pieces or seed potatoes;
- 2. Subsurface side-dress on both sides of the row covered with 3 or more inches of soil;
- 3. Narrow band spray at ground cracking directly over the row during hilling covered with 3 or more inches of soil;
- 4. Narrow band directly below the eventual seed row in a bedding operation 7 or fewer days before planting. For effective pest control or suppression, GAUCHO applications must be placed below soil-surface and in contact with seed piece or within root-zone. For potatoes grown on highly permeable soils with shallow water table, at-plant applications of GAUCHO may be made in a 2 to 4 inch band (width of planter shoe opening) and completely covered.

#### **POTATO**

(Seed Piece Treatment)

Pests Controlled	Rate fluid ounces/100 lbs seed	Rate fluid ounces/Acre*	
Aphids			
Colorado potato beetle			
Flea beetles	0.16 - 0.32	3.2 – 6.4	
Leafhoppers			
Potato psyllid			
Wireworms (seed-piece protection)			
Diseases Suppressed			
Symptoms of:	·		
Potato leaf roll virus (PLRV)	0.32	0.4	
Potato yellows	0.32	6.4	
Net necrosis			

#### Restrictions

Maximum GAUCHO allowed per crop season: 8.0 fluid ounces/Acre (0.31 lb Al/Acre)

Do not use treated seed-pieces for food, feed, or fodder. Do not apply any subsequent application of ADMIRE PRO (in-furrow), GAUCHO, LEVERAGE or PROVADO following a GAUCHO seed-piece treatment.

# Application

Apply specified dosage as a diluted spray onto seed-pieces using a shielded spray system. Dilute with 3 parts water, or less, to 1 part GAUCHO. Agitate or stir spray solution as needed. Fungicidal or inert absorbent dusts may be applied after GAUCHO application. Apply only in areas with adequate ventilation or in areas that are equipped to remove spray mist or dust. Plant seed-pieces as soon as possible after treating avoiding prolonged exposure of GAUCHO treated seed-pieces to sunlight and in accordance with the recommendation of your local Extension specialist.

\* Based on a seeding rate of 2000 lbs/acre.

#### **TOBACCO**

Pests Controlled	Rate fluid ounces/1000 plants (as seedling tray drench)	Rate fluid ounces/1000 plants (in-furrow or transplant-water)
Aphids Flea beetles	0.4	0.6
Mole crickets Whiteflies Wireworms	0.6 – 1.1	0.7 – 1.1
Pests / Diseases Suppressed		
Cutworms Symptoms of: Tomato spotted wilt virus (TSWV)	0.6 – 1.1	0.7 – 1.1

#### Restrictions

Pre-Harvest Interval (PHI): 14 days

Maximum GAUCHO allowed per crop season: 12.8 fluid ounces/Acre (0.5 lb Al/Acre)

#### **Applications**

Apply specified dosage in one of the following methods:

- Uniform, broadcast foliar spray to seedlings in trays (tray drench) not more than 7 days prior to transplanting followed immediately by overhead irrigation to wash GAUCHO from foliage into potting media. Failure to wash GAUCHO from foliage may result in a reduction in pest control. Handle transplants carefully during setting to avoid dislodging treated potting media from roots;
- 2. In-furrow spray or transplant-water drench during setting;
- 3. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.

Important Note: Proper tray drench applications of GAUCHO have been shown to be the most efficacious method of application. However, the specified rate of GAUCHO may be applied as combination of the tray drench in the planthouse and/or transplant-water drench in field. Adverse growing conditions may cause a delay in uptake of GAUCHO into the plant and a delay in control.

### **VEGETABLE and SMALL FRUIT CROPS**

Applications - GAUCHO® 600 SC Insecticide

# CUCURBIT VEGETABLES 1/

Crops of Crop Group 9 including: Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cuban pumpkin, Cucumber, Gherkin, Gourd (edible, includes hyotan, cucuzza, hechima, Chinese okra), *Momordica* spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of *Cucumis melo* including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon and Winter melon), Pumpkin, Squash (includes summer squash types such as: butternut squash, calabaza, crookneck squash, Hubbard squash, scallop squash, straightneck squash, vegetable marrow and zucchini, and winter squash types such as acorn squash and spaghetti squash), Watermelon (includes hybrids and/or varieties of *Citrullus lanatus*)

Field Applications: See details below for additional planthouse applications.	
Pests Controlled	Rate fluid ounces/Acre
Aphids	
Cucumber beetles	
Leafhoppers	6.4 - 9.6
Thrips (foliage feeding thrips only)	
Whiteflies	
Diseases Suppressed	
Bacterial wilt (as vectored by various cucumber beetles)	6.4 – 9.6
Leaf silvering resulting from whitefly feeding	

#### Restrictions

Pre-Harvest Interval (PHI): 21 days

Maximum GAUCHO allowed per application: 9.6 fluid ounces/Acre (0.38 lb Al/Acre)

#### **Applications**

Apply specified dosage in one of the following methods:

- 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
- In-furrow spray directed on or below seed;
- 3. Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1 1/2" with sufficient irrigation within 24 hours of application;
- 4. Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting;
- 5. Post-seeding drench, transplant-water drench, or hill drench;
- 6. Subsurface side-dress on both sides of each row. GAUCHO must be incorporated into root-zone.

### Planthouse Application 2/

Transferde Application	
Pests Controlled	Rate fluid ounces/10,000 Plants
Aphids Whiteflies	0.4

#### Restrictions

Maximum amount GAUCHO applied in the planthouse: 0.4 fluid ounces (0.0156 lb Al)/10,000 plants.

Maximum number GAUCHO applications in planthouse: 1

#### **Applications**

Apply specified dosage to seedlings in trays in the planthouse, targeting soil media (tray drench), not more than 7 days prior to transplanting, in one of the following manners:

- Uniform, broadcast high-volume foliar spray, followed immediately by sufficient overhead irrigation to wash GAUCHO from foliage into potting media without loss of gravitational liquid from the bottom of the tray. Failure to wash GAUCHO from foliage may result in reduced pest control;
- 2. Injection into overhead irrigation system, using adequate volume to thoroughly saturate soil media without loss of gravitational solution from the bottom of the tray.

The application made in the planthouse will only provide short-term protection and is not intended as a substitution for a field application. An additional field application must be made within 2 weeks following transplanting to provide continuous protection. Applications of higher rates or increased number of applications in planthouse may result in significant plant injury. Transplants should be handled carefully during setting to avoid dislodging treated potting media from roots.

Important Note: Not all varieties of cucurbit vegetables have been tested for tolerance to GAUCHO applied to seedling flats. It is therefore recommended to treat a small number of plants and confirm tolerance for 7 days prior to treating entire planthouse.

 $^{1/}$  Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.

<sup>2/</sup> Use not permitted in California unless otherwise directed by Supplemental Labeling.

# GREENHOUSE VEGETABLES 1/2

(Mature plants in production greenhouses) Cucumber, Tomato, only

Pests Controlled	Rate fluid ounces/1000 plants
Aphids	0.56
Whiteflies	0.30

#### Restrictions

Pre-Harvest Interval (PHI): 0 day

Maximum number GAUCHO applications per crop season: 1.

#### Applications

Apply specified dosage in a minimum of 16 gallons of water for tomatoes and 21 gallons of water for cucumbers using soil drenches, micro-irrigation, drip irrigation, or hand-held or motorized calibrated irrigation equipment. Make applications only to plants grown in field-type soils, potting media, or mixtures thereof. Do not apply to plants grown in non-soil medias such as perlite, vermiculite, rock wool or other soil-less media, or plants growing hydroponically. Do not apply to immature plants since phytotoxicity may occur.

Make applications when infestation pressure surpasses threshold and beneficials are not able to maintain pest populations below damage thresholds. Repellency of bumble bee pollinators and negative effects on some beneficials (*Orius* sp.) can occur when GAUCHO is applied.

Many varieties of vegetables have been tested for tolerance to GAUCHO and show good safety. However, certain varieties may show more sensitivity to GAUCHO. Therefore, treatment of a few plants is recommended before treating the whole greenhouse.

<sup>1</sup>/<sub>2</sub> Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.



# FRUITING VEGETABLES 1/

Crops of Crop Group 8 plus Okra including: Eggplant, Ground cherry, Okra, Pepper (including bell, chili, cooking, pimento and sweet) Tomato, Pepinos, Tomatillo

Field Applications: See details below for additional planthouse application	ns.
Pests Controlled	Rate fluid ounces/Acre
Aphids Calarada patata bastla	Okra and Pepper
Colorado-potato beetle Flea beetles	6.4 – 12.8
Leafhoppers Thrips (foliage feeding thrips only) Whiteflies	Other Crops 6.4 – 9.6
Pests / Diseases Suppressed	
Symptoms of:	Okra and Pepper
Tomato mottle virus	6.4 – 12.8
Tomato spotted wilt virus	Other Crops
Tomato yellow leaf curl virus	6.4 – 9.6

#### Restrictions

Pre-Harvest Interval (PHI): 21 days

Maximum GAUCHO allowed on pepper and okra crops per application: 12.8 fluid ounces/Acre (0.5 lb Al/Acre)

Maximum GAUCHO allowed on other fruiting vegetable crops per application: 9.6 fluid ounces/Acre (0.38 lb Al/Acre)

# **Applications**

Apply specified dosage in one of the following methods:

- 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
- 2. In-furrow spray directed on or below seed;
- 3. Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1 1/2" with sufficient irrigation within 24 hours of application;
- 4. Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting;
- 5. Post-seeding drench, transplant-water drench, or hill drench;
- 6. Subsurface side-dress on both sides of each row. GAUCHO must be incorporated into root-zone.

# Planthouse Application 2/

Pests Controlled	Rate fluid ounces/10,000 Plants	
Aphids	0.4	
Whiteflies	0.4	

#### Restrictions

Maximum amount GAUCHO applied in the planthouse: 0.4 fluid ounces (0.0156 lb Al)/10,000 plants.

Maximum number GAUCHO applications in planthouse: 1

# **Applications**

Apply specified dosage to seedlings in trays in the planthouse, targeting soil media (tray drench), not more than 7 days prior to transplanting, in one of the following manners:

- Uniform, broadcast high-volume foliar spray, followed immediately by sufficient overhead irrigation to wash GAUCHO from foliage into potting media without loss of gravitational liquid from the bottom of the tray. Failure to wash GAUCHO from foliage may result in reduced pest control;
- 2. Injection into overhead irrigation system, using adequate volume to thoroughly saturate soil media without loss of gravitational solution from the bottom of the tray.

The application made in the planthouse will only provide short-term protection and is not intended as a substitution for a field application. An additional field application must be made within 2 weeks following transplanting to provide continuous protection. Applications of higher rates or increased number of applications in planthouse may result in significant plant injury. Transplants should be handled carefully during setting to avoid dislodging treated potting media from roots.

Important Note: Not all varieties of fruiting vegetables have been tested for tolerance to GAUCHO applied to seedling flats. It is therefore recommended to treat a small number of plants and confirm tolerance for 7 days prior to treating entire planthouse.

<sup>1/</sup> Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.

<sup>2</sup>/ Use not permitted in California unless otherwise directed by Supplemental Labeling.

# GLOBE ARTICHOKE 1

Pests Controlled	Rate fluid ounces/Acre
Aphids Leafhoppers	6.4 – 12.8

#### Restrictions

Pre-Harvest Interval (PHI): 7 days

Maximum GAUCHO allowed per season: 12.8 fluid ounces/Acre (0.5 lb Al/Acre)

### **Applications**

Apply specified dosage in the following method:

- 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
- 2. In-furrow spray at planting directed on or below seed

11 Use not permitted in California unless otherwise directed by supplemental labeling.

# HERBS 1/

Crops of Crop Subgroup 19A including: Angelica, Balm (lemon balm), Basil (fresh and dried), Borage, Bumet, Camomile, Catnip, Chervil (dried), Chinese chive, Chive, Clary, Coriander (cilantro or Chinese parsley leaves), Costmary, Culantro (leaf), Curry (leaf), Dillweed, Horehound, Hyssop, Lavender, Lemongrass, Lovage (leaf), Marigold, Marjoram, Nasturtium, Parsley (dried), Pennyroyal, Rosemary, Rue, Sage, Savory (summer and winter), Sweet bay (bay leaf), Tansy, Tarragon, Thyme, Wintergreen, Woodruff, Wormwood

Pests Controlled	Rate fluid ounces/Acre	
Aphids		
Flea beetles	6.4 - 9.6	
Leafhoppers	0.4 - 9.0	
Whiteflies		
Pest Suppressed		
Thrips (foliage feeding thrips only)	6.4 – 9.6	

#### Restrictions

Pre-Harvest Interval (PHI): 14 days

Maximum GAUCHO allowed per season: 9.6 fluid ounces/Acre (0.38 lb Al/Acre)

#### **Applications**

Apply specified dosage in one of the following methods:

- 1. In-furrow spray during planting directed on or below seed;
- 2. In-furrow spray or transplant-water drench during setting or transplanting;
- 3. Shanked-into or below eventual seed-line;
- 4. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.

#### Notes

Not all crops and/or varieties listed above have been tested for phytotoxic effects. Without specific knowledge about a particular crop and variety, Bayer CropScience strongly recommends that only small areas or numbers of plants of each be treated and evaluated prior to commercial use.

11 Use not permitted in California unless otherwise directed by supplemental labeling.

# BRASSICA (COLE) LEAFY VEGETABLES 1/

**Crops of Crop Group 5 including:** Broccoli, Broccoli raab (*rapini*), Brussels sprouts, Cabbage, Cauliflower, Cavalo broccoli, Chinese (*gai lon*) broccoli, Chinese (*bok choy*) cabbage, Chinese (*napa*) cabbage, Chinese mustard (*gai choy*) cabbage, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens

Pests Controlled	Rate fluid ounces/Acre
Aphids Leafhoppers	
Thrips (foliage feeding thrips only) Whiteflies	6.4 – 9.6

#### Restrictions

Pre-Harvest Interval (PHI): 21 days

Maximum GAUCHO allowed per application: 9.6 fluid ounces/Acre (0.38 lb Al/Acre)

#### Applications

Apply specified dosage in one of the following methods:

- 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
- In-furrow spray directed on or below seed;
- 3. Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1½" with sufficient irrigation within 24 hours of application;
- 4. Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting;
- 5. Post-seeding drench, transplant-water drench, or hill drench;
- 6. Subsurface side-dress on both sides of each row. GAUCHO must be incorporated into root-zone.

#### LEAFY VEGETABLES 1/

Crops Of Crop Subgroup 4A plus Watercress including: Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (Roquette), Chervil, Chrysanthemum (edible leaved and garland), Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Spinach (including New Zealand and vine (Malabar spinach, Indian spinach)), Watercress (commercial production only, applications must not be made to native cress growing in streams or other bodies of water), Watercress (upland)

Pests Controlled	Rate fluid ounces/Acre	
Aphids		
Leafhoppers	6.4 – 9.6	
Thrips (foliage feeding thrips only)	0.4 – 9.0	
Whiteflies		

#### Restrictions

Pre-Harvest Interval (PHI): 21 days

Maximum GAUCHO allowed per application: 9.6 fluid ounces/Acre (0.38 lb Al/Acre)

# **Applications**

Apply specified dosage in one of the following methods:

- 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
- 2. In-furrow spray directed on or below seed;
- 3. Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1½" with sufficient irrigation within 24 hours of application;
- Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting;
- 5. Post-seeding drench, transplant-water drench, or hill drench;
- 6. Subsurface side-dress on both sides of each row. GAUCHO must be incorporated into root-zone.
- $^{1/}$  Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.

<sup>1/2</sup> Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.

# LEAFY PETIOLE VEGETABLES 1/

Crops of Crop Subgroup 4B including: Cardoon, Celery, Celtuce, Chinese celery (fresh leaves and stalk only), Florence fennel (including sweet anise, sweet fennel, Finocchio), Rhubarb, Swiss chard

Pests Controlled	Rate fluid ounces/Acre
Aphids	-
Leafhoppers	0.4.00
Thrips (foliage feeding thrips only)	6.4 – 9.6
Whiteflies	

#### Restrictions

Pre-Harvest Interval (PHI): 45 days

Maximum GAUCHO allowed per application: 9.6 fluid ounces/Acre (0.38 lb Al/Acre)

#### **Applications**

Apply specified dosage in one of the following methods:

- 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
- 2. In-furrow spray directed on or below seed;
- 3. Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1½" with sufficient irrigation within 24 hours of application;
- 4. Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting;
- 5. Post-seeding drench, transplant-water drench, or hill drench;
- 6. Subsurface side-dress on both sides of each row. GAUCHO must be incorporated into root-zone.

1/ Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.

# LEGUME VEGETABLES 1/ except soybean, dry

# Crops of Crop Group 6 including: Edible Podded and Succulent Shelled Pea and Bean and Dried Shelled Pea and Bean

Bean (Lupinus spp., includes grain lupin, sweet lupin, white lupin, and white sweet lupin)

Bean (*Phaseolus* spp., includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean)

**Bean** (*Vigna* spp., includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, Southern pea, urd bean, yardlong bean)

Pea (*Pisum* spp., includes dwarf pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea)

Other Beans and Peas [Broad bean (fava), Chickpea (garbanzo bean), Guar, Jackbean, Lablab bean (hyacinth bean), Lentil, Pigeon pea, Soybean (immature seed), Sword bean]

Pests Controlled	Rate fluid ounces/Acre
Aphids	
Leafhoppers	6.4 – 9.6
Thrips (foliage feeding thrips only)	6.4 – 9.6
Whiteflies	
Pests / Diseases Suppressed	
Symptoms of:	
Bean common mosaic virus (BCMV)	6.4 – 9.6
Bean golden mosaic virus (BGMV)	6.4 – 9.6
Beet curly top hybrigeminivirus (BCTV)	

#### Restrictions

Pre-Harvest Interval (PHI): 21 days

Maximum GAUCHO allowed per crop season: 9.6 fluid ounces/Acre (0.38 lb Al/Acre)

#### **Applications**

Apply specified dosage in one of the following methods:

- 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
- 2. In-furrow spray at planting directed on or below seed;
- 3. In a narrow (2" or less) surface band over seed-line during planting incorporated to a depth of 1 to 1 1/2" with sufficient irrigation within 24 hours following application;
- 4. In a narrow band directly below the eventual seed row in a bedding operation 7 or fewer days before planting;
- 5. As a post-seeding drench, transplant drench, or hill drench.

 $<sup>^{1/2}</sup>$  Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.

# ROOT VEGETABLES 1/

Crops of Crop Subgroup 1B except Sugarbeet plus Kava including: Beet (garden)<sup>2/</sup>, Burdock (edible)<sup>2/</sup>, Carrot<sup>2/</sup>, Celeriac<sup>2/</sup>, Chervil (turnip-rooted)<sup>2/</sup>, Chicory<sup>2/</sup>, Ginseng, Horseradish, Kava<sup>2/, 3/</sup>, Parsley (turnip-rooted), Parsnip<sup>2/</sup>, Radish<sup>2/</sup>, Oriental radish (diakon)<sup>2/</sup>, Rutabaga<sup>2/</sup>, Salsify (oyster plant), Salsify (black)<sup>2/</sup>, Salsify (Spanish), Skirret and Turnip<sup>2/</sup>.

Pests Controlled	Rate fluid ounces/1000 row-feet	Rate fluid ounces/Acre
Aphids		
Flea beetles		
Leafhoppers	0.28 - 0.68	6.4 - 9.6
Thrips (foliage feeding thrips only)		
Whiteflies		

#### Restrictions

Pre-Harvest Interval (PHI): 21 days

Maximum GAUCHO allowed per crop season: 9.6 fluid ounces/Acre (0.38 lb Al/Acre)

Maximum GAUCHO applications per crop season: 1

#### **Application**

Apply specified dosage in one of the following methods:

- 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
- 2. In-furrow spray (rate specified per 1000 row-feet) or, shanked-in 1 to 2 inches below seed depth during planting;
- 3. In a narrow (2 inches or less) band directly (1 to 2 inches) below the eventual seed row in a bedding operation 14 or fewer days before planting.

Important Note: The rate applied affects the length of control. Use higher rates where infestations occur later in crop development, or where pest pressure is continuous. GAUCHO rates less than 0.28 fluid ounces/1000 row-feet will not provide adequate residual pest control. GAUCHO treated crops grown on very high organic matter soils (muck) may also require additional pest management control.

<sup>2</sup>/ Tops or greens from these crops may be utilized for food or feed.

<sup>1/</sup> Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.

<sup>&</sup>lt;sup>3</sup> Use not permitted in California unless otherwise directed by Supplemental Labeling.

# TUBEROUS and CORM VEGETABLES 1/

Crops of Crop Subgroup 1C including: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible, Queensland arrowroot), Cassava (bitter & sweet) $^{2}$ , Chayote (root), Chufa, Dasheen (taro) $^{2}$ , Ginger, Leren, Sweetpotato, Tanier (cocoyam) $^{2}$ , Turmeric, Yam bean (jicama, manoic pea), Yam (true) $^{2}$  (For applications on potato see Field Crops section)

Pests Controlled	Rate fluid ounces/1000 row-feet	Rate fluid ounces/Acre
Aphids		
-Flea-beetles-		
Leafhoppers	0.28 - 0.68	6.4 - 9.6
Thrips (foliage feeding thrips only)		
Whiteflies		

#### Restrictions

Pre-Harvest Interval (PHI) from planting application: 3 days (leaves); 125 days (corms)

Maximum GAUCHO allowed per crop season: 9.6 fluid ounces/Acre (0.38 lb Al/Acre)

Maximum GAUCHO applications per crop season: 1

#### Application

Apply specified dosage in one of the following methods:

- 1. In-furrow spray (rate specified per 1000 row-feet) over planting material (hulis) or shanked-in 1 to 2 inches below hulis depth at planting;
- 2. Side-dress not more than 0.24 fluid ounces/1000 row-feet no later than 45 days after-planting. Observe the same PHI as above.

Important Note: The rate applied affects the length of control. Use higher rates where infestations occur later in crop development, or where pest pressure is continuous. GAUCHO rates less than 0.28 fluid ounces/1000 row-feet may not provide adequate residual pest control. GAUCHO treated crops grown on very high organic matter soils (muck) may also require additional pest management control.

<sup>2</sup>/ Tops or greens from these crops may be utilized for food or feed.

<sup>&</sup>lt;sup>1/</sup> Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.

# STRAWBERRY 1/

Annual and Perennial Crops		
	Pests Controlled	Rate fluid ounces/Acre
Aphids Whiteflies		9.6 – 12.8

#### Restrictions

Pre-Harvest Interval (PHI): 14 days

Maximum GAUCHO allowed per crop season: 12.8 fluid ounces/Acre (0.5 lb Al/Acre)

#### **Applications**

Apply specified dosage in one of the following methods:

- 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment after plants are established or on perennial crops in early spring prior to bud opening;
- 2. As a plant material or plant hole treatment just prior to, or during transplanting.
- As a band spray over-the-row in a minimum of 20 gallons of water per acre, followed immediately by overhead irrigation
  to incorporate product into root-zone. Plastic or other mulches that limit movement of GAUCHO into root zone are not
  recommended.

The rate applied affects the length of control. Use higher rates where infestations may occur later in crop development or where pest pressure is continuous.

Pests Controlled	Rate fluid ounces/Acre	
White grub complex (grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle, Oriental beetle)	6.4 – 9.6	

### Restrictions

Pre-Harvest Interval (PHI): 14 days

Maximum GAUCHO allowed per season: 9.6 fluid ounces/Acre (0.38 lb Al/A)

# **Applications**

Apply a single application post harvest to coincide with renovation of strawberry fields and during active egg-laying period of beetles. Apply specified dosage in one of the following methods:

- 1. As a ground spray via boom or backpack sprayer in a minimum of 20 gallons of water per acre:
- 2. As a row-band spray using an adjusted amount of product based on the treated row band area in proportion to the amount required per full acre. The bandwidth should be equivalent to the width of the anticipated fruiting bed;
- 3. As a chemigation application with 600 to 1000 gallons of water followed by 0.1 to 0.25 inches irrigation.

**Important Note**: All soil-surface applications must be followed by 0.25 inches of rainfall or overhead irrigation water per acre within 2 hours of application. Failure to adequately incorporate GAUCHO into egg-deposition zone may result in decreased activity.

<sup>1</sup>/<sub>2</sub> Do not use both application methods on the same crop in the same season.

# SUGARBEET 19

For use only in CA

Pests Controlled	Rate fluid ounces/Acre	
Aphids Leafhoppers Whiteflies	2.4 – 4.8	
Flea beetles  Pests / Diseases Suppressed		
Symptoms of: Western yellows / Beet curly top hybrigeminivirus (BCTV)	2.4 – 4.8	

# Restrictions

Maximum GAUCHO allowed per crop season: 4.8 fluid ounces/Acre (0.18 lb Al/Acre)

Do not apply immediately prior to bud opening or during bloom or when bees are actively foraging.

# **Applications**

Apply specified dosage in the following method:

1. Apply specified dosage in sufficient carrier volume to insure uniform application. Apply directly below each seed furrow either during the bedding operation immediately prior to planting or at the time of planting.

The low rate may be applied to aid establishment of stands in whitefly areas, or for early season control of the other pests listed.

<sup>1/</sup> Not for use on crops grown for seed unless allowed by state-specific supplemental labeling.

		GAU	CHO® 600	SC INSE	CTICIDE	:				
CONVERSION CHART FOR LINEAR APPLICATION										
	RATE fluid ounces/1000 row-feet									
RATE fluid ounces per Acre			В	ased on <u>aı</u>	<i>reraqe</i> rov	v spacing	(in inches	<b>)</b> :		
	10	15	20	25	30	34	36	38	40	45
5.0	0.10 <sub>A</sub>	0.14	.0.19	0.24	0.29	0.33	0.34	0.36	0.38	0.4
5.5	³ <u>0</u> 11	0.16	0.21	0.26	0.32	0.36	0.38	0.40	0.42	0.4
6.0	. O.11	0.17	<b>€</b> .0.23∑	0.29	0.34	0.39	0.41	0.44	0.46	0.5
6.5	0.12	0.19	0.25	0.31	0.37	0.42	0.45	0.47	0.50	0.5
7.0	0.13	0.20	0.27	0.33	0.40	0.46	0.48	0.51	0.54	0.6
7.5	0.14	0.22	0.29	0.36	0.43	0.49	0.52	0.55	0.57	0.6
8.0	y 0:15	0.23	0.31	0.38	0.46	0.52	0.55	0.58	0.61	0.6
8.5	0:16	0.24	0.33	0.41	0.49	0.55	0.59	0.62	0.65	0.7
9.0	.0.17	0.26	0.34	0.43	0.52	0.59	0.62	0.65	0.69	0.7
9.5	0.18	0.27	0.36	0.45	0.55	0.62	0.65	0.69	0.73	0.8
10.0	-0.19	0.29	0.38	0.48	0.57	0.65	0.69	0.73	0.77	0.8
10.5	0.20	0.30	0.40	0.50	0.60	0.68	0.72	0.76	0.80	0.9
11.0	0.21	0.32	0.42	0.53	0.63	0.72	0.76	0.80	0.84	0.9
11.5	0.22	0.33	0.44	0.55	0.66	0.75	0.79	0.84	0.88	0.9
12.0	0.23	0.34	0.46	0.57	0.69	0.78	0.83	0.87	0.92	1.0
12.5	0:24	0.36	0.48	0.60	0.72	0.81	0.86	0.91	0.96	1.0
13.0	0.25	0.37	0.50	0.62	0.75	0.85	0.90	0.95	0.99	1.1.

Important Note: The GAUCHO rate applied affects the length of control and to a considerable extent, the degree of control or effect. Row-spacing X GAUCHO rate combinations in shaded blocks may not provide adequate residual pest control and are not recommended for long-term, residual control. Use higher labeled rates where infestations may occur later in crop development or where pest pressure is continuous. Bayer CropScience offers no warranty for use of GAUCHO at rates below 0.28 fluid ounces/1000 row-feet.

# TREE, BUSH and VINE CROPS Applications – GAUCHO\* 600 SC Insecticide

#### BANANA and PLANTAIN 1/

Pests Controlled	Rate fluid ounces/Acre	
Aphids Leafhoppers	6.4 – 12.8	
Pest Suppressed		
Scales	6.4 – 12.8	

#### Restrictions

Pre-Harvest Interval (PHI): 0 day

Maximum GAUCHO allowed per crop season: 12.8 fluid ounces/Acre (0.5 lb Al/A)

#### **Applications**

Apply specified dosage of GAUCHO in the following method:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.

1/ Use not permitted in California unless otherwise directed by supplemental labeling.

#### BUSHBERRY

Crops of Crop Subgroup 13B Including: Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, Juneberry, Ligonberry, Salal

Pests Controlled	Rate fluid ounces/Acre
Japanese beetle (adults, feeding on foliage)	
White grub complex	6.4 – 12.8
(grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle and Oriental beetle)	

#### Restrictions

Pre-Harvest Interval (PHI): 7 days

Maximum GAUCHO allowed per season: 12.8 fluid ounces/Acre (0.5 lb Al/Acre)

Do not apply pre-bloom or during bloom or when bees are actively foraging.

#### **Applications**

Apply specified dosage in one of the following methods:

- 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
- 2. 18-inch band on each side of the row followed by irrigation immediately after application.

For optimal grub control, apply GAUCHO to control 1st or 2nd instar larvae. Application may be made post-bloom up to 7 days prior to harvest, or post-harvest until October 1st. For optimum control of Japanese beetle larvae, make applications from June 1 to July 15.

Application to grass covered rows, row middles, drive lanes, headlands, and other grassy areas in and around the berry field will control resident grub populations. Applications directed to the root-zone will help protect berry plant roots from grub feeding.

Apply GAUCHO to moist soil. If necessary, apply one hour of irrigation water immediately before application of GAUCHO. To ensure maximum efficacy of soil surface sprays, 1/2 to 1 inch of irrigation water or rainfall should be applied or received within 24 hours of application of GAUCHO to facilitate movement into the soil and into the root-zone.

#### **CANEBERRY**

# Crops of Crop Subgroup 13A including:

Blackberry (Rubus eubatus, including bingleberry, black satin berry, boysenberry, Cherokee blackberry, Chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, Himalayaberry, hullberry, Lavacaberry, Loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, nectarberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, rayenberry, rossberry, Shawnee blackberry, youngberry, and varieties and/or hybrids of these)

Raspberry (black and red, Rubus occidentalis, Rubus strigosus, Rubus idaeus)

Pests Controlled	Rate fluid ounces/Acre	
Aphids		
Leafhoppers	6.4 – 12.8	
Whiteflies		
Rednecked cane borer	9.6 – 12.8	
Pest Suppressed		
Thrips (foliage feeding thrips only)	6.4 – 12.8	

#### Restrictions

Pre-Harvest Interval (PHI): 7 days

Maximum GAUCHO allowed per season: 12.8 fluid ounces/Acre (0.5 lb Al/Acre)

Do not apply pre-bloom or during bloom or when bees are actively foraging:

#### **Application**

Apply specified dosage of GAUCHO in one of the following methods:

- 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
- 2. Basal, soil drench in a minimum of 500 gallons solution per acre.

## CITRUS (Containerized)

Crops of Crop Group 10 Including: Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo, and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Pummelo, Orange (sweet and sour), Satsuma mandarin, White sapote (*Casimiroa* spp), and other cultivars and/or hybrids of these.

Pests Controlled	Rate mL/ft <sup>3</sup> container media		
Aphids			
Asian citrus psyllid	(*)		
Blackfly			
Citrus leafminer	0.3		
Leafhoppers/Sharpshooters	0.3		
Mealybugs			
Scales			
Whiteflies			
Citrus root weevil (larval complex)	0.5 – 1.0		
Pests Suppressed			
Citrus thrips (foliage feeding thrips only)	1.0		

#### Application

Determine volume of container and calculate dosage necessary to treat container. Apply calculated dosage of GAUCHO per container as a soil drench or through low-pressure drip or trickle irrigation water. Use sufficient carrier volume to ensure thorough uniform distribution throughout the media without loss of gravitational water from the container. For optimal results, treatment should be made at planting prior to insect infestation. Retreat if necessary. For control of larvae of the citrus root weevil complex, application should be made prior to neonate larvae entering potting media. Utilize higher dosage for heavy infestations.

# CITRUS (Field)

Crops of Crop Group 10 Including: Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo, and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Pummelo, Orange (sweet and sour), Satsuma mandarin, White sapote (*Casimiroa* spp), and other cultivars and/or hybrids of these.

Pests Controlled	Rate fluid ounces/Acre
Aphids	•
Asian citrus psyllid	
Blackfly	
Citrus leafminer	
Leafhoppers/Sharpshooters	6.4 - 12.8
Mealybugs	
Scales	
Termites (FL only)	
Whiteflies	
Pests / Diseases Suppressed	
Citrus nematode	
Symptoms of:	
Citrus tristeza virus (CTV) through vector control	12.8
Citrus yellows	
Thrips (foliage feeding thrips only)	

#### Restrictions

Pre-Harvest Interval (PHI): 0 day

Maximum GAUCHO allowed per season: 12.8 fluid ounces/Acre (0.5 lb Al/Acre)

#### **Applications**

Apply specified dosage in one of the following methods:

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment. For optimum results, apply to newly planted trees or those previously trained to drip, trickle or micro-sprinkler irrigation. Soil should be lightly prewetted to break soil surface tension prior to applications of GAUCHO. Chemigation application can be made separate to normal irrigation but followed by 10 to 20 minutes of additional watering to move GAUCHO into root-zone. Allow 24 hours before initiating subsequent irrigations;
- Soil surface band spray on both sides of the tree. Bands should overlap at the tree base to create a continuous band within the
  drip-line area of the tree, to be followed immediately with light sprinkler irrigation sufficient to move the product into the upper
  portion of the root-zone. This method is suitable for very coarse soils with 0.75% organic matter or less;
- 3. Drench to base of tree not exceeding one-quart total solution per tree immediately around trunk of tree and extending outward covering the entire fibrous root system of the tree. Only recommended for trees up to 8 feet tall;
- 4. For control of existing termite infestations, apply specified dosage in 1 to 4 quarts of total solution volume, depending on size of tree, as a drench application to the basal portion of the tree trunk and surrounding soil in the immediate vicinity of the tree trunk.
- 5. For suppression of citrus nematode, apply specified dosage through low-pressure chemigation or soil surface band spray only, ensuring complete coverage of the root system and utilizing application directions stated above for the respective application method. Repeated and regular use of GAUCHO over several consecutive growing seasons provides the greatest degree of nematode suppression and yields the greatest plant response.

#### COFFEE 1/

Pests Controlled	Rate fluid ounces/Acre
Aphids Leafhoppers	6.4 – 12.8
Leafhoppers Leafminer	
Pest Suppressed	
Scales	6.4 – 12.8

#### Restrictions

Pre-Harvest Interval (PHI): 7 days

Maximum GAUCHO allowed per season: 12.8 fluid ounces/Acre (0.5 lb Al/Acre)

Do not apply pre-bloom or during bloom or when bees are actively foraging.

# **Applications**

Apply specified dosage of GAUCHO in one of the following methods:

- 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
- 2. Subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation;
- Basal, soil drench in sufficient water to insure incorporation into the root-zone followed by irrigation.

#### **CRANBERRY**

Pests Controlled	Rate fluid ounces/Acre
Rootgrubs (Scarabaeidae)	6.4 – 12.8
Rootworms (Chrysomelidae)	0.4 – 12.0

#### Restrictions

Pre-Harvest Interval (PHI): 30 days

Maximum GAUCHO allowed per season: 12.8 fluid ounces/Acre (0.5 lb Al/Acre)

Do not apply pre-bloom or during bloom or when bees are actively foraging.

# Applications

Apply GAUCHO to moist soil. Apply specified dosage of GAUCHO in one of the following methods:

- 1. As a soil spray (ground application) directed to the root and crown area using a minimum of 20 gal of water per acre;
- As a chemigation application with 600 to 1000 gal water.

Immediately upon application, GAUCHO must be incorporated into root-zone by 0.1 - 0.3 inches water/Acre, either with the chemigation application or through irrigation/rainfall if not applied through chemigation. Inadequate incorporation within 24 hours of application may result in reduced control.

#### Rootgrubs and Rootworms

Best control may be achieved when application is made post-bloom immediately after bees are removed. Applications should target early instar larvae.

GAUCHO has not been tested for crop response in tank mixes with other registered fungicides or insecticides. If tank mixing is desired, premix a sample of the GAUCHO and the desired fungicide or insecticide partner at labeled rates and apply to a small area. Evaluate crop response within 48 hours and for at least two weeks prior to utilizing the tank mix on larger acreage. If crop injury results from the premix test, do not apply the tank mix to larger acreage.

<sup>1/</sup> Use not permitted in California unless otherwise directed by supplemental labeling.

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#### **GRAPE**

Including: American bunch grape, Muscadine grape and Vinifera grape

Pests Controlled	Rate fluid ounces/Acre	
European fruit lecanium		
Leafhoppers/Sharpshooters		
Mealybugs	6.4 12.8	
Phylloxera * spp		
Pests / Diseases Suppressed		
Grapeleaf skeletonizer		
Nematodes	9.6 – 12.8	
Pierce's disease		

#### Restrictions

Pre-Harvest Interval (PHI): 30 days

Maximum GAUCHO allowed per season: 12.8 fluid ounces/Acre (0.5 lb Al/Acre)

# **Applications**

Apply specified dosage in one of the following methods:

- 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
- 2. Subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation;
- 3. Hill drench in sufficient water to insure incorporation into the root-zone followed by irrigation.
- 4. For suppression of nematodes, apply 14 fluid ounces in a single application or two 7 fluid ounce applications on a 30 to 45 day interval. Treatment(s) should be applied only by 1) chemigation into root-zone through above ground low-pressure drip, trickle, micro-sprinkler or equivalent equipment; or 2) French plow technique, followed immediately by sufficient irrigation to move the product into the entire root-zone of the plant. Repeated and regular use of GAUCHO over several consecutive growing seasons provides the greatest degree of nematode suppression and yields the greatest plant response.

For optimum results, make application(s) between bud-break and the pea-berry stage. A total of 14 fluid ounces/Acre is recommended under any of the following conditions:

- 1. Where vigorous vine growth is expected;
- 2. In warmer growing areas:
- 3. Where mealybug and European fruit lecanium populations are expected to be heavy;
- 4. Where vine populations exceed 600 per acre, or;
- 5. For suppression of nematodes.
- \* Repeated and regular use of GAUCHO over several, consecutive growing seasons controls existing *Phylloxera* infestations over time or prevents *Phylloxera* from becoming established.

#### HOP 1/

Pest Controlled	Rate fluid ounces/Acre
Aphids	7.7

#### Restrictions

Pre-Harvest Interval (PHI): 60 days

Maximum GAUCHO allowed per season: 7.7 fluid ounces/Acre (0.3 lb Al/Acre)

#### **Applications**

Apply specified dosage in one of the following methods:

- 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
- 2. Subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation;
- 3. Hill drench in sufficient water to insure incorporation into the root-zone followed by irrigation.

Higher dosage is recommended where extended residual control is desired or for treating larger vines or vines with dense foliage volume.

Use not permitted in California unless otherwise directed by supplemental labeling.

#### **POME FRUIT**

Crops Of Crop Group 11 Including: Apple, Crabapple, Loquat, Mayhaw, Pear (including Oriental pear), Quince

Pests Controlled	Rate fluid ounces/Acre
Aphids (including woolly apple aphid)  Leafhoppers	6.4 – 9.6

Restrictions

Pre-Harvest Interval (PHI): 21 days

Maximum GAUCHO allowed per season: 9.6 fluid ounces/Acre (0.38 lb Al/Acre)

Do not apply pre-bloom or during bloom or when bees are actively foraging.

**Applications** 

Apply specified dosage in the following method:

1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.

# POMEGRANATE 1/

1 OWEOGRAPH E	
Pests Controlled	Rate fluid ounces/Acre
Aphids	
Leafhoppers/Sharpshooters	6.4 – 12.8
Whiteflies	

#### Restrictions

Pre-Harvest Interval (PHI): 0 day

Maximum GAUCHO allowed per season: 12.8 fluid ounces/Acre (0.5 lb Al/Acre).

Do not apply pre-bloom or during bloom or when bees are actively foraging.

# **Applications**

Apply specified dosage in the following method:

1. Chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.

<sup>1/</sup> Use not permitted in California unless otherwise directed by supplemental labeling.

# STONE FRUIT

possible following treatment.

Crops Of Crop Group 12 Including: Apricot, Cherry (including sweet and tart), Nectarine, Peach, Plum (including Chickasaw, Damson and Japanese), Plumcot, Prune (fresh and dried)

Pests Controlled	Rate fluid ounces/Acre
Aphids (including woolly apple aphid)	6.4 – 9.6
Leathoppers	0.4 0.0
Restrictions	
Pre-Harvest Interval (PHI): 21 days	
Maximum GAUCHO allowed per season: <b>9.6 fluid ounce:</b> Do not apply pre-bloom or during bloom or when bees are	
Applications	
Apply specified dosage in the following method:	
<ol> <li>Chemigation into root-zone through low-pressure drip</li> </ol>	o, trickle, micro-sprinkler or equivalent equipment.
Pre-plant, Root Dip Application	
Pest Controlled	Rate fluid ounces/10 gallons root-dip solution
	0.8 (= 24 mLs)

# TREE NUTS 1/

Crops of Crop Group 14 including: Almond, Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert, Hickory nut, Macadamia nut, Pecan, Pistachio, Walnut [black and English]

Pests Controlled	Rate fluid ounces/Acre
Aphids	
Leafhoppers/Sharpshooters	
Mealybugs	6.4 – 12.8
Spittlebugs	
Termites	
Whiteflies	
Pests / Diseases Suppressed	
Pecan scab (from reduction in honeydew deposition)	6.4 – 12.8
Thrips (foliage-feeding thrips only)	12.8

#### Restrictions

Pre-Harvest Interval (PHI): 7 days

Maximum GAUCHO allowed per season: 12.8 fluid ounces/Acre (0.5 lb Al/Acre)

Do not apply pre-bloom or during bloom or when bees are actively foraging.

#### **Applications**

Apply specified dosage prior to or at onset of pest infestation in one of the following methods:

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent irrigation equipment. Pre-wet soil
  prior to applications of GAUCHO and allow soil to dry following application and prior to subsequent irrigation;
- 2. Emitter or spot application in a minimum of 4 fluid ounces of mixture per emitter site;
- 3. Shank or subsurface side-dress, injected to a depth just above or just within the root zone and between the trunk and drip line of the tree canopy. Product should be applied in a minimum of 10 gallons per acre using multiple shanks on both sides of trees. Ensure product placement is below sod or orchard floor debris. Irrigation covering entire treated area should follow within 48 hours to promote uptake by root system.
- 4. For control of termites, apply specified dosage to slightly moist soil as a high-volume drench to the basal portion of the tree trunk and surrounding soil in the immediate vicinity of the tree trunk. Utilize sufficient carrier volume to penetrate the soil to a depth of 18 24 inches to obtain optimum control. Allow soil to dry following treatment and prior to applying any irrigation.

#### Remarks

Use the higher rates when applied by shank or subsurface sidedress, used on larger trees, soils with high clay content, for high plant populations, and/or where extended control is desired. Under some conditions, control may not occur for 14 or more days or until two (2) irrigations have been made. Applications made later in the season may result in reduced efficacy.

<sup>1/</sup> Use not permitted in California unless otherwise directed by supplemental labeling, except Pecan.

# TROPICAL FRUIT

Including: Acerola, Atemoya<sup>1</sup>/, Avocado, Birida<sup>1</sup>/, Black sapote, Canistel, Cherimoya<sup>1</sup>/, Custard apple<sup>1</sup>/, Feijoa, Jaboticaba, Guava, Llama<sup>1</sup>/, Longan, Lychee, Mamey sapote, Mango, Papaya, Passionfruit, Persimmon, Pulasan, Rambutan, Sapodilla, Soursop<sup>1</sup>/, Spanish lime, Star apple, Starfruit, Sugar apple<sup>1</sup>/, Wax jambu

Pests Controlled	Rate fluid ounces/Acre
Aphids  -Avocado-lacebug Leafhoppers  Whiteflies	9.6 – 12.8
Pests Suppressed	
Scales Thrips (foliage feeding thrips only)	12.8

# Restrictions

Pre-Harvest Interval (PHI): 6 days

Maximum GAUCHO allowed per season: 12.8 fluid ounces/Acre (0.5 lb Al/A).

Do not apply pre-bloom or during bloom or when bees are actively foraging

#### Applications

Apply specified dosage in the following method:

- 1. Chemigation through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.
- $^{1/2}$  Use not permitted in California unless otherwise directed by supplemental labeling.

# OTHER CROPS

# Applications - GAUCHO® 600 SC INSECTICIDE

# CHRISTMAS TREE1

Pests Controlled	Rate fluid ounces/Acre
-White-grub-complex	
(damage from grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle and oriental beetle)	6.4 – 12.8

#### Restrictions

Maximum GAUCHO allowed per season: 12.8 fluid ounces/Acre (0.5 lb Al/Acre)

### **Applications**

Soil incorporation and movement of GAUCHO to the root-zone is required for activity. GAUCHO can be incorporated most readily when applied to moist soil. Apply specified dosage in one of the following methods:

- 1. Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment;
- 2. 18-inch band on each side of the row (small trees) to full broadcast application (large trees) followed by rainfall or 0.25 1 inch of irrigation within 12 hours after application.

For optimal grub control, apply GAUCHO during adult flight activity, or up to mid-July, when 1st instar larvae are present.

<sup>1</sup>/ Use not permitted in California unless otherwise directed by supplemental labeling.

# POPLAR / COTTONWOOD 1/

(includes members of the genus Populus grown for pulp or timber)

Pests Controlled	Rate fluid ounces/Acre
Aphids Cottonwood leaf beetle	6.4 – 12.8
Pests Suppressed	
Phylloxerina popularia	6.4 – 12.8

#### Restrictions

Maximum GAUCHO allowed at-plant per crop season: 12.8 fluid ounces/Acre (0.5 lb Al/Acre)

Do not apply pre-bloom or during bloom or when bees are actively foraging.

#### **Applications**

Apply specified dosage in the following method:

- 1. Chemigation through low-pressure drip irrigation.
- 2. For narrow-row, cutting orchards/nurseries used for plant propagation, shank into root-zone followed by adequate irrigation to promote uptake. (Adequate irrigation depends on soil moisture level at application. Under dry conditions, 0.25 inches/Acre is recommended).

For Cottonwood leaf beetle, protection against damage will occur when application is made early-season, when the beetles first begin feeding. Larger trees may require earlier treatment as a result of slower uptake.

For Phylloxerina, apply early in the year, from break of dormancy through May.

Cutting/Whip Application Recommendations. See details above for	Field Application Recommendations.
Pest Controlled	Cutting/Whip Soaking Solution fluid ounces GAUCHO Needed per 100 gallons
Cottonwood leaf beetle	5.3 – 10.6 (unhydrated cuttings/whips)
	10.6 – 16.0 (partially hydrated cuttings/whips)
Pests Suppressed	
Aphids	5.3 – 10.6 (unhydrated cuttings/whips)
Phylloxerina popularia	10.6 - 16.0 (partially hydrated cuttings/whips)

#### Restrictions

Maximum GAUCHO allowed at-plant per crop season: 12.8 fluid ounces/Acre (0.5 lb Al/Acre)

#### **Applications**

Moisture content of cuttings/whips prior to application, the solution concentration and the length of soaking interval interact to affect the amount of product absorbed into plant material. For a constant soaking interval of 24 hours, drier cuttings/whips absorb a higher quantity of solution and require a lower concentration. Conversely, more hydrated cuttings/whips absorb less solution and require a higher concentration. Soaking of cuttings/whips should occur in a covered container in absence of UV light. Not all *Populus* sp. clones/varieties/hybrids have been tested for crop safety. Without specific knowledge about a particular *Populus* sp. clone/variety/hybrid, Bayer CropScience recommends that small numbers of cuttings/whips of each be treated and evaluated prior to commercial use.

# Apply GAUCHO in one of the following cuttings/whips soaking methods:

For freshly cut (unhydrated) cuttings/whips, soak plant material in specified solution concentration for 24 hours prior to cold storage. After removal from cold storage, plant as needed.

For previously hydrated cuttings/whips removed from cold storage, allow plant material to reach room temperature and soak in specified solution concentration for 24 hours prior to planting.

Proper care should be taken in disposal of any residual soaking solution. Solution may be applied to existing trees or other registered crops as long as all product label precautions and restrictions are observed.

<sup>1</sup>/<sub>Use</sub> not permitted in California unless otherwise directed by supplemental labeling.

# **IMPORTANT: READ BEFORE USE**

Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once.

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