

## **POME FRUIT (WITHIN CROP GROUP 11-10) - CODLING MOTH**

### General Information

#### DIRECTIONS FOR CHEMIGATION

##### Instructions

For chemigation use only on cranberries and on potatoes after foliage has emerged and only through overhead sprinkler irrigation systems.

Apply this product only through overhead sprinkler irrigation systems including center pivot, lateral move, side (wheel) roll, solid set, or hand move irrigation systems after potato foliage has emerged. Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. 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.

The overhead sprinkler chemigation 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 back flow. 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located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.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 for materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. 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 flow outlet end of the fill pipe and the 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.

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

#### Application Instructions

Observe the requirements in the System Requirements section above. Apply ASSAIL 30 SG Insecticide only through systems containing anti-siphon and check valves designed to prevent water source contamination or overflow of the mix tank and containing interlocking controls between the metering device and the water pump to insure simultaneous shut-off. Maintain a gentle continuous agitation in mix tank during mixing and application to assure a uniform suspension. Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time. Application of more than recommended quantities of irrigation water per acre may result in decreased product performance.

Do not apply when wind speed favors drift, when system connections or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product cannot be flushed and must be dismantled and drained. In a center pivot system, block the nozzle set nearest the well/pivot/injection unit to prevent spray being applied to this area. Use of end guns which deliver uneven distribution of water is not recommended. Where sprinkler distribution patterns do not overlap sufficiently, unacceptable insect control may result. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. ASSAIL 30 SG Insecticide may be applied in conjunction with chemically neutral liquid fertilizers. Application in conjunction with highly alkaline fertilizers, such as aqueous ammonia, may cause a degradation of the pesticide, resulting in reduced performance and should be avoided.

#### Spray Preparation

Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water. Prepare a solution of ASSAIL 30

SG Insecticide in a mix tank. Fill the tank with 1/2 or 3/4 the desired amount of water. Start mechanical or hydraulic agitation. Slowly add the required amount of ASSAIL 30 SG Insecticide and then the remaining volume of water.

#### Sprinkler Irrigation

Observe all System Requirements and Application Instructions above. Set sprinkler system to deliver a maximum of 0.2 inch of water per acre. Volumes of water higher than this may reduce efficacy. Start sprinkler and then uniformly inject the solution of ASSAIL 30 SG Insecticide into the irrigation water line so as to deliver the desired rate per acre. The solution of ASSAIL 30 SG Insecticide should be injected with a positive displacement pump into the main line ahead of a right angle turn to insure adequate mixing. Retention of ASSAIL 30 SG on foliage is necessary for optimum activity. Do not apply when wind speed favors drift beyond the area intended for treatment. Where sprinkler distributed patterns do not overlap sufficiently, unacceptable insect control may result.

#### DIRECTIONS FOR AERIAL OR GROUND SPRAY APPLICATION

##### APPLICATION TIMING

Begin application when insect populations reach recognized economic threshold levels. Consult the Cooperative Extension Service, Professional consultants or other qualified authorities to determine appropriate threshold levels for treatment in your area.

##### INFORMATION

ASSAIL 30 SG Insecticide is a 30% soluble granule for the control of many sucking and chewing insects on the crops listed in this label. The active ingredient in ASSAIL 30 SG Insecticide is acetamiprid, a neonicotinoid insecticide that controls target insects through contact and ingestion. ASSAIL 30 SG Insecticide is rapidly absorbed by the plant tissue and quickly moves via systemic translaminar activity to protect the entire leaf. However, thorough spray coverage is essential for optimal performance. ASSAIL 30 SG Insecticide is rainfast once the spray solution has dried.

##### MIXING INSTRUCTIONS

###### Mixing and Application Instructions for ASSAIL 30 SG Insecticide

ASSAIL 30 SG Insecticide is a soluble granule formulation that readily disperses in water to form a spray mixture, which may be applied by ground or air.

1. Plan ahead. Prepare only enough spray mixture as can be applied on the day of mixing.

2. Fill tank 1/4 - 1/2 full with the required amount of total spray volume of water.
3. Begin agitation and add product.
4. Continue to fill tank.
5. Allow mixing in tank for 2 minutes after filling or until thoroughly mixed before applying.
6. Maintain continuous agitation during mixing and application to assure uniform suspension. If mixture sits without agitation for extended periods, agitate the mixture for at least 10 minutes before use.
7. Equip spray system with a 50-mesh inline filter, which will protect nozzles that are typically used. Nozzles may also be equipped with 50-mesh nozzle filters or 25 to 50 mesh (equivalent) slotted nozzle filters.
8. ASSAIL 30 SG Insecticide is unstable in water pH below 4 and above 9. If necessary, buffer water to obtain optimum pH range.

## APPLICATION INSTRUCTIONS

### ROW CROPS

Apply a minimum finished spray volume of 5 gallons per acre by air or 15 gallons per acre by ground unless otherwise directed under crop specific directions. For best results, it is important to obtain thorough and uniform spray coverage of the plant. For aerial application, select nozzles and pressure that deliver MEDIUM spray droplets as indicated in nozzle manufacturer's catalogs and in accordance with ASABE Standard S-572.

The use of spray adjuvants, such as high quality non-ionic or silicone surfactants or methylated seed oils is recommended to enhance coverage and plant uptake and may improve pest control on certain crops. Please see specific crop use directions. The addition of an adjuvant is recommended for all applications made to vegetables (except legumes) and to cotton when controlling whiteflies. The use of stickers is not recommended. Some adjuvants can cause adverse effects on certain crops, such as spotting or burn to fruit or foliage. Select an adjuvant that will be safe for the target crop. Follow adjuvant use directions. Consult your local Extension Service, Crop Advisor or United Phosphorus, Inc. representative for additional information. Use higher dosage rates for heavy infestations or dense foliage. The specific length of residual control depends on environmental factors, plant growth, dosage rate, and degree of insect infestation. For foliar banded applications, determine the amount of chemical to use per acre by dividing the band width by the row width and multiplying by the appropriate broadcast rate.

To clean the sprayer after use, drain and flush with water. Use rinsate on crop

according to label instructions or dispose of in an approved manner (See STORAGE AND DISPOSAL).

#### ORCHARD AND VINE CROPS (excluding grapes)

To achieve optimum pest control, it is important to obtain thorough and uniform spray coverage. Choose a finished spray volume appropriate for the size of tree or vine and amount of foliage which will provide thorough coverage throughout the canopy. For certain pests, also follow recommendations listed under crop specific directions. For aerial application, select nozzles and pressure that deliver MEDIUM spray droplets as indicated in nozzle manufacturer's catalogs and in accordance with ASABE Standard S-572. Aerial applications may not provide as thorough coverage as ground applications.

The use of spray adjuvants, such as high quality non-ionic surfactants, methylated seed or horticultural oils, is recommended to enhance coverage and plant uptake and may improve pest control. The addition of an adjuvant is recommended for all applications to pome fruit when controlling codling moth, oriental fruit moth, and San Jose scale. The use of stickers is not recommended. Some adjuvants can cause adverse effects, such as spotting or burn to fruit or foliage. Select an adjuvant that will be safe for the target crop. Follow adjuvant use directions.

Consult your local Extension Service, Crop Advisor or United Phosphorus, Inc. representative for additional information.

Use higher dosage rates within the listed rate range for heavy infestations or dense foliage. The specific length of residual control depends on environmental factors, plant growth, dosage rate, and degree of insect infestation.

To clean the sprayer after use, drain and flush with water. Use rinsate on crop according to label instructions or dispose of in an approved manner (See STORAGE AND DISPOSAL).

#### INTEGRATED PEST MANAGEMENT (IPM) USE OF THIS PRODUCT

ASSAIL 30 SG Insecticide has ovicidal, larvicidal, or adulticidal activity against many pests which can be effectively utilized in IPM programs. Control of important pests coupled with retention of beneficial insects and spiders can offer significant benefits to those producers utilizing integrated pest management programs.

#### RESISTANCE MANAGEMENT

Acetamiprid is the active ingredient in ASSAIL 30 SG Insecticide. It is a member of a class of chemicals known as neonicotinoids and within the mode of action Group 4A. Rotating ASSAIL 30 SG Insecticide with insecticides of a different mode of action

(other than Group 4A insecticides) may delay or prevent development of resistance and cross-resistance to ASSAIL 30 SG and other Group 4A insecticides.

Avoid making more than two (2) consecutive applications of ASSAIL 30 SG Insecticide before rotating to an alternative mode of action insecticide. Foliar applications of ASSAIL 30 SG Insecticide should be avoided on crops treated with a Group 4A seed treatment or soil-applied insecticide until a foliar application of a non-Group 4A insecticide (insecticide with a different mode of action) has been applied between these applications. The use of ASSAIL 30 SG Insecticide should conform to the resistance management guidelines established in your area. Consult your agricultural advisor, PCA, university or extension personnel for recommended pest and resistance management practices for your area. Use recommended IPM practices in your pest management system. Use of rates below the minimum rate listed for each particular insect pest may enhance the development of resistance and should be avoided.

#### Limitations, Restrictions, and Exceptions

#### POME FRUIT (within Crop Group 11-10)

SPRAY VOLUME FOR POME FRUIT (within Crop Group 11-10): Apply in a minimum finished spray volume of at least 50 gallons per acre by ground or a minimum of 10 gallons per acre by air. Ground applications are recommended for optimal control.

#### PEST SPECIFIC DIRECTIONS

The use of horticultural oil in combination with ASSAIL 30 SG Insecticide has been shown to enhance control of codling moth.

#### USE DIRECTIONS

Degree day models are good indicators that can be used to determine application timing and interval for leafminer, codling moth, and certain other insect pests.

Thorough spray coverage is important to obtain optimum and extended control.

Residual control of labeled pests varies by rate. Use the higher rate within the listed rate range for optimal and extended control.

The use of spray adjuvants, such as horticultural oil or high quality nonionic surfactants, enhances coverage and may improve pest control.

Complete sprays (every row) are recommended.

Use of horticultural oil with ASSAIL 30 SG Insecticide may aid in managing mites, particularly when conditions for mite buildup are favorable. Also consider the mite population history and the use of other products in the orchard that may predispose a mite population increase.

Consult your local Extension Service, Crop Advisor or United Phosphorus, Inc. representative for additional information.

RESTRICTIONS: Pome Fruit (within Crop Group 11-10)

- For any of the pests listed above, use the high rate within the listed rate range under heavy pest pressure.

- Do not apply more than once every 12 days.

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Pre-Harvest Interval

7 days

Rates

[field rates 0](#)

[field rates 1](#)

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Restricted Entry Interval

12 hours

Timings

[Begin applications before insect populations reach damaging levels.](#)