





## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON DC 20460

OFFICE OF **CHEMICAL SAFETY AND** POLLUTION PREVENTION

John Wrubel Nippon Soda Co Ltd c/o Nisso America Inc 88 Pine St New York NY 10005

JUL 2 3 2012

Dear Mr Wrubel

Subject

Amendment to add asparagus brassica leafy greens subgroup 5B turnip greens vegetable

fruiting group 8 10 fruit citrus group 10 10 and fruit pome group 11 10

Assail 30 SG Insecticide

EPA Registration No 8033 36 Decision Number 454283 Submission Date April 30 2011

The labeling referred to above submitted in connection with registration under the Federal Insecticide Fungicide and Rodenticide Act is acceptable with the following comments

On page 2 in the Surface Water Advisory change for several days after application. A level well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds streams and springs will reduce the potential loading of acetamiprid from runoff water and sediment Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours to read for several months or more after application. Avoid accidental or intentional application of this product to ditches swales drainage ways or impervious surfaces such as driveways Runoff of this product to surface water will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours

A stamped copy of the label is enclosed for your records Please submit two copies of your final printed labeling before you release the product for shipment. Your release for shipment of the product constitutes acceptance of these conditions If these conditions are not complied with the registration will be subject to cancellation in accordance with FIFRA section 6(e) If you have any questions please contact Jennifer Urbanski at (703) 347 0156 or urbanski jennifer@epa gov

Regards

Venus Eagle Product Manager (01)

Insecticide Rodenticide Branch

Registration Division (7505P)

Enclosure

(Nisso)

## ASSAIL® 30 SG Insecticide

GROUP 4A INSECTICIDE

ACCEPTED
With COMMENTS
In EPA Letter Dated
JUL 2 3 2012

Under the Federal Insecticide Fungicide and Rodenticide Act As amended for the pesticide Registered under EPA Reg. No

8033-36

ACTIVE INGREDIENT Acetamiprid (E) N<sup>1</sup> [(6 chloro 3 pyridyl)methyl] N<sup>2</sup> cyano N<sup>1</sup> methyl acetamidine OTHER INGREDIENTS

30 / by wt 70 / by wt

**EPA Reg No 8033 36** 

For Agricultural Use Only

**EPA Est No** 

# KEEP OUT OF REACH OF CHILDREN CAUTION

Si usted no entiende la etiqueta busque a alguien para que se la explique a usted en detalle (If you do not understand the label find someone to explain it to you in detail)

## **EMERGENCY TELEPHONE NUMBERS**

CHEMTREC (800) 424 9300
MEDICAL (303) 623 5716 Rocky Mountain Poison Control Center

### **FIRST AID**

IF SWALLOWED	Immediately call a poison control center or doctor for treatment advice  Do not induce vomiting unless told to do so by a poison control center or doctor  Have person sip a glass of water if able to swallow  Do not give anything by mouth to an unconscious person
IF ON SKIN OR CLOTHING	Take off contaminated clothing Rinse skin immediately with plenty of water for 15 – 20 minutes Call a poison control center or doctor for treatment advice
IF IN EYES	Hold eye open and rinse slowly and gently with water for 15 – 20 minutes  Remove contact lenses if present after the first 5 minutes then continue rinsing  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 treatment advice
Have the	product container or label with you when calling a poison control center or doctor or going for treatment

Net Contents \_\_\_ounces Batch No \_\_\_\_

Nippon Soda Co, Ltd c/o Nisso America Inc 88 Pine St 14th FL New York NY 10005

# PRECAUTIONARY STATEMENTS CAUTION

## HAZARDS TO HUMANS and DOMESTIC ANIMALS

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Harmful if inhaled. Avoid breathing vapors or spray mist. Keep out of reach of children and domestic animals.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear long sleeved shirt and long pants waterproof gloves shoes plus socks and chemical resistant headgear for overhead exposure Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this products concentrate. Do not reuse them Follow manufacturer's instructions for cleaning/maintaining PPE. If there are no such instructions for washables use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems enclosed cabs or aircraft 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**

Users 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**

This product is toxic to birds and aquatic invertebrates. This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are actively visiting the treatment area. Do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate. Do not contaminate water used for impation or domestic purposes.

#### **GROUND WATER ADVISORY**

This chemical has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

#### SURFACE WATER ADVISORY

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several days after application. A level well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds streams, and springs will reduce the potential loading of acetamiprid from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

## **SPRAY DRIFT**

Avoid spray drift. Do not apply when weather conditions may cause drift. Do not allow this product to drift on to non target areas. To avoid spray drift. DO NOT apply aerially when wind speed is greater than 10 mph or during periods of temperature inversions. For aerial application, select nozzles and pressure that deliver **MEDIUM** spray droplets as indicated in nozzle manufacturer's catalogs and in accordance with ASAE Standard S. 572. AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.

The interaction of many equipment and weather related factors determines the potential for spray drift. The applicator is responsible for considering all of these factors when making decisions. The following drift management requirements must be followed to avoid off target movement from aerial applications to agricultural crops. These requirements do not apply to forestry applications public health uses or to applications using dry formulations.

- 1 The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor
- 2 Use the largest droplet size consistent with good pest control Small droplets are more prone to spray drift and can be minimized by appropriate nozzle selection by orienting nozzles away from the air stream as much as possible and by avoiding excessive spray boom pressure

Where states have more stringent regulations they should be observed

The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory below

#### **AERIAL DRIFT REDUCTION ADVISORY**

This section is advisory in nature and does not supersede the mandatory label requirements

#### INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply MEDIUM droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (See Wind Temperature and Humidity, and Temperature Inversions)

#### CONTROLLING DROPLET SIZE

Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets

Pressure Do not exceed the nozzle manufacturer's recommended pressures For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed use higher flow rate nozzles instead of increasing pressure.

Number of nozzles Use the minimum number of nozzles that provide uniform coverage

Nozzle Orientation Small droplets are more prone to spray drift and can be minimized by several factors including orienting nozzles away from the air stream. Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations. Significant deflection from horizontal will reduce droplet size and increase drift potential.

Nozzie Type Use a nozzle type that is designed for the intended application. With most nozzle types narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

#### **BOOM LENGTH**

For some use patterns reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width

#### APPLICATION HEIGHT

Applications should not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind

#### **SWATH ADJUSTMENT**

When applications are made with a crosswind the swath will be displaced downwind. Therefore on the up and downwind edges of the field, the applicator should compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.)

#### MANAGE

Drift potential is lowest between wind speeds of 2 10 mph. However, many factors including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential. NOTE, Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

#### **TEMPERATURE AND HUMIDITY**

When making applications in low relative humidity set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry

#### **TEMPERATURE INVERSIONS**

Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures 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 or an aircraft smoke generator. 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 air mixing.

#### SENSITIVE AREAS

The pesticide should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas bodies of water known habitat for threatened or endangered species non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas)

## **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in any manner inconsistent with its labeling Read entire label before using this product

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 intervals. 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

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 waterproof gloves and shoes plus socks

## STORAGE AND DISPOSAL

Do not contaminate water food or feed by storage or disposal

#### PESTICIDE STORAGE

Do not store in or around the home. Store unused product in a cool, ventilated, dry, locked area. Do not allow prolonged storage in areas where temperatures frequently exceed 115. F. (46. C). NEVER TRANSFER THIS PRODUCT TO ANOTHER CONTAINER FOR STORAGE.

## PESTICIDE DISPOSAL

Contamination with this product will render water food or feed unfit for human or animal consumption. 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 / full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or stor 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

## **COMPATIBILITY**

ASSAIL® 30 SG insecticide when diluted with an equal volume of water is physically compatible with a wide range of commonly used spray products but the full range of compatibilities under local conditions is not known. Therefore, it is essential that before using ASSAIL 30 SG insecticide in any tank mixture the compatibility of the mixture be established. Add a small amount of this prod to an equal volume of water in a small container and then add the other pesticide or spray product and mix thoroughly. DO NOT USE MIXTURES THAT CURDLE PRECIPITATE OR GREASE FOR BEST RESULTS. SPRAY MIXTURES SHOULD BE USED IMMEDIATELY AFTER MIXING WITH ADEQUATE AGITATION.

## 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 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) of 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 iniside 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 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 / or / 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 / / 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

#### Special Instructions for Tank Mixing ASSAIL 30 SG Insecticide

When tank mixing ASSAIL 30 SG Insecticide with other products introduce the products into the tank in the following order (1) water soluble packets (2) wettable powders (3) water dispersable granules (such as ASSAIL 30 SG Insecticide) (4) flowable liquids (5) emulsifiable concentrates and (6) adjuvants and/or oils (do not use stickers). Always allow each product to fully disperse before adding the next product

## 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 ASAE 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 affects 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 Nippon Soda Co. Ltd. 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 ASAE 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. Do not use adjuvants on grapes. Consult your local Extension Service. Crop Advisor or Nippon Soda 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 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.

## RATE CONVERSION CHART FOR ALL OF THE FOLLOWING CROP USE DIRECTIONS

OUNCES of ASSAIL 30 SG INSECTICIDE PER ACRE	TREATED ACRES PER 32 oz PACKAGE of ASSAIL 30 SG INSECTICIDE	POUNDS of A I PER ACRE
15	21 3	0 028
20	16 0	0 038
25	12 8	0 047
30	10 7	0 056
40	80	0 075
50	6 4	0 094
5 3	60	0 100
5.5	5 8	0 103
70	4 6	0 130
80	4 0	0 150
13 3	2 4	0 250

## COTTON

SPRAY VOLUME FOR COTTON

Apply ASSAIL 30 SG Insecticide in a minimum finished spray volume of 5 gallons per acre by aircraft or by ground equipment. Under extreme pest populations or dense foliage use a minimum spray volume of 10 gallons per acre by ground

		DOSAG	GE PER ACRE	
SITE	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30 SG INSECTICIDE	USE DIRECTIONS
COTTON	Aphids	0 028 – 0 047	15-25	Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present and its susceptibility use the higher rates within the listed rate range.
FOR USE IN California Florida Georgia				Begin applications when treatment thresholds have been reached Thorough coverage is important to obtain optimum control
North Carolina South Carolina and Virginia ONLY	Whitefly Sweet Potato Silver Leaf	0 075 0 1	40-53	Begin applications when whitefly adults appear prior to development of nymphs. Do not wait until heavy populations have become established. For whitefly control. ASSAIL 30 SG Insecticide should be applied in a minimum finished spray volume of 5 gallons per acre by aircraft and 15 gallons per acre by ground equipment. Make applications on a minimum 7 day interval as long as pest pressure continues. Use the high rates within the listed rate range under heavy pressure. Whiteflies have shown a tendency to develop resistance. For resistance management purposes alternating applications of different chemical classes reduces the potential for resistance development. After cutout, foliar absorption of Assail may be affected reducing aphid and whitefly control. After cutout, it is recommended to increase the use of penetrating adjuvants (including oils) to enhance contact and absorption, and/or consider tank mixes with knockdown insecticides such as Bifenture. Acephate Penncap M® etc.
	Plantbugs (Lygus spp)	0 047 – 0 1	25-53	Begin applications when treatment thresholds have been reached Some species of plantbugs may be less susceptible and may only be suppressed by applications of this product. Two applications at 7 to 10 day intervals may be required to achieve control.  Thorough coverage is important to obtain optimum control.
	Fleahopper	0 028 0 047	15-25	Begin applications when treatment thresholds have been reached Thorough coverage is important to obtain optimum control
	Thrips	0 047 0 075	25-40	Begin applications when thrips damage is first observed or anticipated Thorough coverage is important. Use of an adjuvant may improve coverage and control. Use the high rates within the listed rate range under heavy pest pressure.
FOR USE AS AN OVICIDE ON COTTON	Budworm Bollworm	0 028 0 047	15-25	Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control. Optimal ovicidal activity when applied within 24 hours of egg lay.
	Whitefly	0 075 0 1	40-53	Applications made for ovicidal control will not provide sustained control of migrating adults

## RESTRICTIONS Cotton - For Use in CA FL GA NC SC and VA Only

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

Do not make more than 4 applications per season

Do not apply more than once every 7 days

Do not apply less than 28 days before harvest (PHi = 28 days)

Do not exceed a total of 0.4 lbs active ingredient (21.3 ozs product) per acre per growing season

## **LEAFY VEGETABLES (within Crop Group 4)**

SPRAY VOLUME FOR LEAFY VEGETABLES (within Crop Group 4) Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground

		DOSAGI	E PER ACRE	
SITE	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30 SG INSECTICIDE	USE DIRECTIONS
LEAFY VEGETABLES (within Crop Group 4) Amaranth Arrugula Cardoon Celery Chinese celery Celtuce Chervil Chrysanthemum (edible leaved garland) Corn Salad Cress	Aphids	0 038 – 0 075	20-40	Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present or if there are difficult to control species such as lettuce aphid red aphid foxglove aphid etc. use the maximum rate within the listed rate range. Begin applications when treatment thresholds have been reached. Thorough coverage is important to obtain optimum control.
(garden upland) Dandelion Dock Endive Florence Fennel Lettuce (head leaf) Orach Parsley Purslane (garden winter) Radicchio Rhubarb Spinach (leaf vine New Zealand) Swiss Chard	Whitefly Sweet Potato Silver Leaf Greenhouse (For Field Use Only)	0 056 0 075	30-40	Begin applications when whitefly adults appear prior to development of nymphs. Do not wait until heavy populations have become established. Use of an adjuvant is recommended to improve coverage and control. Make applications on a minimum 7 day interval as long as pest pressure continues. Use the high rates within the listed rate range under heavy pressure. Whiteflies have shown a tendency to develop resistance. For resistance management purposes, alternating applications of different chemical classes reduces the potential for resistance development.

## **RESTRICTIONS** Leafy Vegetables (within Crop Group 4)

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

Do not make more than 5 applications per season

Do not apply more than once every 7 days

Do not apply less than 7 days before harvest (PHI = 7 days)

Do not exceed a total of 0 375 lbs acetamiprid active ingredient (20 0 ozs of ASSAIL 30 SG product) per acre per growing season including any pre transplant applications of acetamiprid (maximum pre transplant application rate of acetamiprid is 0 15 lb ai/A)

## **HEAD and STEM COLE CROPS (Crop SubGroup 5A)**

SPRAY VOLUME FOR HEAD and STEM COLE CROPS (within Crop Subgroup 5A) Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground

		DOSAG	E PER ACRE	
SITE	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30 SG INSECTICIDE	USE DIRECTIONS
HEAD and STEM COLE CROPS (within Crop Subgrouproup 5A) Broccoli Chinese broccoli (gai lon) Brussels sprouts Cabbage Chinese	Aphids	0 038 – 0 075	20-40	Aphid species may differ in susceptibility to this product If you are unsure of the aphid species present and its susceptibility use the higher rates within the listed rate range Begin applications when treatment thresholds have been reached Thorough coverage is important to obtain optimum control
Cabbage(napa) Chinese mustard cabbage (gai choy) Cavalo broccolo Cauliflower Kohlrabi	Whitefly Sweet Potato Silver Leaf Greenhouse (for field use only)	Sweet Potato Silver Leaf Greenhouse (for field use only)  greenhouse  (for field use only)  greenhouse  use only)  greenhouse  tendency to devimanagement put chemical classe	Begin applications when whitefly adults appear prior to development of nymphs. Do not wait until heavy populations have become established. Use of an adjuvant is recommended to improve coverage and control. Make applications on a minimum 7 day interval as long as pest pressure continues. Use the high rates within the listed rate range under heavy pressure. Whiteflies have shown a tendency to develop resistance. For resistance management purposes, alternating applications of different chemical classes reduces the potential for resistance development.	
	Thrips	0 075	40	Begin applications as soon as thrips are seen in the crop and continue applications as needed Thrips will seek sheltered parts of the plant so using nozzles that produce a fine spray with sufficient water for thorough coverage is essential for good control. Applications during the cupping stage of cabbage may be especially helpful in preventing injury. For resistance management purposes alternating applications of different chemical classes reduces the potential for resistance development.
	Diamondback Moth (suppression)	0 075	40	Begin applications as soon as moths begin laying eggs and continue as needed Use in a program as a resistance management tool
	Swede Midge	0 075	40	Apply as a preventative spray to control the first generation if swede midge has been found in your area. Preventative applications will decrease the chance of quick population increases later in the season.

## RESTRICTIONS Head and Stem Cole Crops (within Crop Subgroup 5A)

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

Do not make more than 5 applications per season

Do not apply more than once every 7 days

Do not apply less than 7 days before harvest (PHI = 7 days)

Do not exceed a total of 0 375 lbs acetamiprid active ingredient (20 0 ozs of ASSAIL 30 SG product) per acre per growing season including any pre transplant applications of acetamiprid (maximum pre transplant application rate of acetamiprid is 0 15 lb ai/A)

## **LEAFY COLE CROPS (Crop Subgroup 5B) and TURNIP GREENS**

SPRAY VOLUME FOR LEAFY COLE CROPS (within Crop Subgroup 5B) and TURNIP GREENS Apply in a minimum finished spray volume of 5 gallons per acre by air or 30 gallons per acre by ground

		DOSAG	GE PER ACRE	
SITE	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30 SG INSECTICIDE	USE DIRECTIONS
LEAFY COLE CROPS (wthin Crop Subgroup 5B) and TURNIP GREENS Broccoli raab (rapini) Collards Chinese Cabbage (bok choy)	Aphids	0 038 – 0 1	20-53	Aphid species may differ in susceptibility to this product If you are unsure of the aphid species present and its susceptibility use the higher rates within the listed rate range Begin applications when treatment thresholds have been reached Thorough coverage is important to obtain optimum control
greens Mustard spinach Rape greens Turnip greens	ape greens Turnip Sweet Potato	0 047 0 1	25-53	Begin applications when whitefly adults appear prior to development of nymphs. Do not wait until heavy populations have become established. Use of an adjuvant is recommended to improve coverage and control. Make applications on a minimum 7 day interval as long as pest pressure continues. Use the high rates within the listed rate range under heavy pressure. Whiteflies have shown a tendency to develop resistance. For resistance management purposes, alternating applications of different chemical classes reduces the potential for resistance development.
	Diamondback Moth (suppression)	0 075 – 0 1	40-53	Begin applications as soon as moths begin laying eggs and continue as needed  Use in a program as a resistance management tool
	Thrips	0 075 – 0 1	40 53	Begin applications as soon as thrips are seen in the crop and continue applications as needed Thrips will seek sheltered parts of the plant so using nozzles that produce a fine spray with sufficient water for thorough coverage is essential for good control. Applications during the cupping stage of cabbage may be especially helpful in preventing injury. For resistance management purposes alternating applications of different chemical classes reduces the potential for resistance development.
	Harlequin Bug	0 075 – 0 1	17-23	Begin applications when treatment thresholds have been reached Thorough coverage is important to obtain optimum control
	Swede Midge	0 075 – 0 1	40 53	Apply as a preventative spray to control the first generation if swede midge has been found in your area. Preventative applications will decrease the chance of quick population increases later in the season.

## RESTRICTIONS Leafy Cole Crops (within Crop Sugroup 5B) and Turnip Greens

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

Do not make more than 4 applications per season

Do not apply more than once every 7 days

Do not apply less than 3 days before harvest (PHI = 3 days)

Amendment to include asparagus DRAFT August 24 2011

Do not exceed a total of 0 375 lbs  $\,$  acetamprid active ingredient (20 0  $\,$  ozs of ASSAIL 30 SG product) per acre per growing season including any pre transplant applications of acetamiprid (maximum pre transplant application rate of acetamiprid is 0 15 lb  $\,$  ai/A)

There are no rotational crop plantback restrictions for this product

Do not harvest turnip root for food/feed purposes

14/32

## FRUITING VEGETABLES (within Crop Group 8 10)

SPRAY VOLUME FOR FRUITING VEGETABLES (within Crop Group 8 10) Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground

		DOSAG	E PER ACRE	
SITE	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30 SG INSECTICIDE	USE DIRECTIONS
FRUITING VEGETABLES (within Crop Group 8 10) Eggplant (including african	Aphids	0 038 0 075	20-40	Aphid species may differ in susceptibility to this product If you are unsure of the aphid species or if there are difficult to control species present use the maximum rate within the
pea scarlet) Cocona Garden huckleberry Goji berry Groundcherry Martynia Naranjilla Okra Pepino Pepper (bell nonbell) Roselle Sunberry Tomato(including bush currant tree) Tomatillo & Cultivars varieties and/or hybrids of these	Colorado Potato Beetle	0 028 0 047	15-25	listed rate range Begin applications when treatment thresholds have been reached
	Whitefly Sweet Potato Silver Leaf Greenhouse (for field use only)	0 047 0 075	25 - 40	Begin applications when whitefly adults appear prior to development of nymphs. Do not wait until heavy populations have become established. Use of an adjuvant is recommended to improve coverage and control. Make applications on a minimum 7 day interval as long as pest pressure continues. Use the high rates within the listed rate range under heavy pressure. Whiteflies have shown a tendency to develop resistance. For resistance management purposes, alternating applications of different chemical classes reduces the potential for resistance development.
	Pepper Weevil	0 047 0 075	25 40	Begin applications when pepper weevil adults first appear and flower buds and/or fruit are present Apply on a 7 to 14 day interval. Use a 7 day interval under heavy insect pressure
	Thrips	0 075	4 0	Begin applications as soon as thrips are seen in the crop and continue applications as needed. Thorough coverage of the plant is important to obtain optimum control. For resistance management purposes, alternating applications of different chemical classes reduces the potential for resistance development.

## RESTRICTIONS Fruiting Vegetables (within Crop Group 8 10)

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

Do not make more than 4 applications per season

Do not apply more than once every 7 days

Do not apply less than 7 days before harvest (PHI = 7 days)

Do not exceed a total of 0.3 lbs acetamiprid active ingredient (16.0 ozs of ASSAIL 30 SG product) per acre per growing season including any pre transplant applications of acetamiprid (maximum pre transplant application rate of acetamiprid is 0.15 lb ai/A)

## **CITRUS (within Crop Group 10 10)**

**SPRAY VOLUME FOR CITRUS (within Crop Group 10 10)** For mature trees apply in a minimum finished spray volume of 100 gallons per acre by ground or a minimum of 20 gallons per acre by air Ground applications are recommended for optimal control

		DOSAG	SE PER ACRE	
SITE	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30 SG INSECTICIDE	USE DIRECTIONS
CITRUS (within Crop Group 10 10) Calamondin Citron Citrus Hybrids Grapefruit Japanese summer grapefruit	Aphids	0 047 – 0 103	25-55	Aphid species may differ in susceptibility to this product If you are unsure of the aphid species present and its susceptibility use the higher rates within the listed rate range
Kumquat Lemon Lime (including Australian desert Australian finger Australian round Brown River finger Mount	Citrus Thrips Citrus Leafminer Citrus Mealybug	0 075 0 13	40-70	Use the higher rates within the listed rate range under heavy insect pressure  Begin applications when treatment thresholds have been reached
White Russell River sweet Tahiti New Guinea Wild) Mandarin (Mediterranean Satsuma) Orange(sweet sour tachibana trifoliate) Pummelo Tangelo Tangor Uniq fruit & Cultivars varieties and/or hybrids of these	Caribbean Black Scale Glassywinged sharpshooter			Thorough coverage is important to obtain optimum control
	Citricola Scale Red Scale	0 15 0 25	8 0 – 13 3	Begin applications when treatment thresholds have been reached. Treat for citricola scale when crawlers are present in the spring and fall. Use of an approved horticultural oil will enhance control.
				Adjust gallonage to tree size to insure coverage of scale on wood and foliage Optimum gallonage for Red Scale control is 750 1500 GPA
	Katydid	0 11 - 0 19	6 0 – 10 0	Apply at petal fall or when katydids are first observed Repeat in 2 to 3 weeks
				Thorough coverage is important to obtain optimum control
	Asian Citrus Psyllid	0 13 – 0 25	6 9 – 13 3	Begin applications as pest populations begin to appear Thorough coverage is necessary for optimum control. The addition of a spray adjuvant such as silicone based surfactants or horticultural oil may enhance coverage and improve pest control. Scout groves regularly and retreat if needed. Use higher rates within the listed rate range under heavy insect pressure.

## **RESTRICTIONS** Citrus (within Crop Group 10 10)

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

Do not make more than 5 applications per season

Do not apply more than once every 7 days

Do not apply less than 7 days before harvest (PHI = 7 days)

Do not exceed a total of 0 55 lbs active ingredient (29 3 ozs product) per acre per growing season

## **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

phids  entiform eafminer  eafhoppers	POUNDS ACTIVE  0 047 - 0 075	OUNCES ASSAIL 30 SG INSECTICIDE 25-40	Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present and its susceptibility use the higher rates within the listed rate range. Woolly apple aphid may require use of higher rates within the listed rate range and repeat applications.  Application(s) for leafminer control must be made before larvae reach the	Begin applications before insect populations reach damaging levels  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
entiform eafminer			in susceptibility to this product. If you are unsure of the aphid species present and its susceptibility use the higher rates within the listed rate range. Woolly apple aphid may require use of higher rates within the listed rate range and repeat applications.  Application(s) for leafminer control must be made.	insect populations reach damaging levels  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
eafminer	0 047	2 5	control must be made	Thorough spray coverage
eafhoppers			tissue feeding stage	is important to obtain optimum and extended control
	0 047 0 075	25-40		Residual control of labeled
odling Moth	0 075 0 15	40-80	The use of horticultural oil in combination with ASSAIL 30 SG Insectide has been shown to enhance control of codling moth	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 non ionic 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
riental Fruit Moth esser Appleworm	0 094 – 0 15	50-80		
ealybug sylla ullein Plant Bug (Campylomma)  uropean Apple Sawfly	0 075 – 0 15 0 094 – 0 15	40-80 50-80	Summer applications may not effectively control Psylla  Application to prevent fruit damage from Mullein Plant Bug should be made at pink bud through bloom prior to petal fall. Do not apply this product when bees are actively visiting the area to be treated  For Japanese Beetle adult beetles will stop	
ur S	lein Plant Bug Campylomma) opean Apple	lein Plant Bug Campylomma)  opean Apple Cample Cample Cample O 094 – 0 15	ppean Apple awfly 0 094 - 0 15 5 0 - 8 0	Psylla  Application to prevent fruit damage from Mullein Plant Bug should be made at pink bud through bloom prior to petal fall. Do not apply this product when bees are actively visiting the area to be treated opean Apple awfly 0 094 - 0 15 5 0 - 8 0 adult beetles will stop

Apple Maggot Plum Curculio San Jose Scale (suppression)	0 15	80	For Apple Maggot use of baited spheres is a good indicator that can be used to determine spray timing  For optimum control of Plum Curculio an early petal fall application is necessary followed by one or two cover sprays during the egg laying period  For best results against San Jose Scale time applications for the crawler stage  The addition of horticultural oil is recommended for improved performance against San Jose Scale	Consult your local Extension Service Crop Advisor or Nippon Soda Co Ltd representative for additional information
Dogwood Borer	0 15	80	Apply spray to tree trunks Time first application after moth emergence to coincide with egg laying period Make second application 14 to 21 days later	

## 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 make more than 4 applications per season

Do not apply more than once every 12 days

Do not apply less than 7 days before harvest (PHI = 7 days)

Do not exceed a total of 0 60 lbs active ingredient (32 0 ozs product) per acre per growing season

## GRAPES and other Climbing Vine Small Fruits (except Fuzzy Kiwifruit) (within Crop Sub Group 13 07F)

SPRAY VOLUME FOR GRAPES and OTHER CLIMBING VINE SMALL FRUITS (EXCEPT FUZZY KIWIFRUIT) (within Crop Sub Group 13 07F) Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground Ground applications are recommended for optimal control

		DOSAG	E PER ACRE	
SITE	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30 SG INSECTICIDE	USE DIRECTIONS
GRAPES and other climbing vine small fruits (except fuzzy kiwifruit) (within Crop Sub Group 13 07F) Amur river grape gooseberry hardy kiwifruit Maypop schisandra berry and cultivars varieties and/or hybrids of these	Leafhoppers Including grape Ieafhopper and variegated Ieafhopper Grape cane girdler Grape berry moth Glassywinged sharpshooter Aphids Mealybug (Grape Obscure Vine) Western Grapeleaf Skeletonizer Thrips  EAST of Rocky Mountains Only Phylloxera (aerial form only) Banded Grape Bug Rose Chafer Japanese Beetle	0 047 - 0 1	25-53	Begin applications when treatment thresholds have been reached  Thorough coverage is important to obtain optimum control  For Mealybug control apply ASSAIL 30 SG Insecticide as crawlers / nymphs become active  For Western grapeleaf skeletonizer apply ASSAIL 30 SG Insecticide as larvae are observed feeding on leaves Apply sufficient water to provide thorough coverage of all surfaces  For Japanese Beetle Adult beetles will stop feeding after application and mortality will occur within a few days

## RESTRICTIONS Grapes and other climbing vine small fruits (except fuzzy kiwifruit) (within Crop Sub Group 13 07F)

Do not make more than 2 applications per season

Do not apply more than once every 14 days

Do not apply less than 3 days before harvest (PHI = 3 days)

Do not exceed a total of 0.2 lb active ingredient (10.6 ozs product) per acre per growing season

Do not use adjuvants

## TUBEROUS AND CORM VEGETABLES (within Crop Sub Group 1C)

(Potato, Sweet Potato)

SPRAY VOLUME FOR TUBEROUS AND CORM VEGETABLES (within Crop Sub Group 1C) Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground

		DOSAG	E PER ACRE	
SITE	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30 SG INSECTICIDE	USE DIRECTIONS
TUBEROUS AND	Aphids	0 047 – 0 075	25-40	Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present and its
VEGETABLES (within Crop Sub Group 1C) Potato	Leafhoppers	0 028 0 075	15 - 40	susceptibility use the higher rates within the listed rate range
Sweet Potato Arracacha Arrowroot Artichoke	Colorado Potato Beetle			Use higher rates within the listed rate range under conditions of heavy pest pressure or dense foliage
(Chinese and Jerusalem) Edible Canna Cassava	Cucumber Beetle			Begin applications when pest treatment thresholds have been reached
(Bitter and Sweet) Chayote (Root) Chufa Dasheen Ginger Leren Tanier Tumeric Yam Bean True Yam	Flea Beetle	0 028 – 0 047	15-25	Thorough coverage is important to obtain optimum control  For application via overhead sprinkler chemigation to emerged potato foliage—use a 4 0 ounce / Acre—rate to control aphids and leafhoppers and a 2 5 – 4 0 ounce/Acre—rate to control Colorado Potato Beetles—See the
FOR USE AS AN OVICIDE	European Corn Borer	0 047 – 0 075	25-40	Directions for Chemigation section of the label for application details

## RESTRICTIONS Tuberous and Corm Vegetables (within Crop Sub Group 1C)

Do not make a foliar ASSAIL 70 WP Insecticide application following a seed treatment application of acetamiprid in the same crop

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

Do not make more than 4 applications per season

Do not apply more than once every 7 days

Do not apply less than 7 days before harvest (PHI = 7 days)

Do not exceed a total of 0 3 lb active ingredient (16 ozs product) per acre per growing season

**TOBACCO** 

SPRAY VOLUME FOR TOBACCO Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground

SITE	PEST	DOSAG	E PER ACRE	
		POUNDS ACTIVE	OUNCES ASSAIL 30 SG INSECTICIDE	USE DIRECTIONS
TOBACCO	Flea Beetles Hornworms	0 047 – 0 075	25-40	Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present and its susceptibility, use the higher rates within the listed rate.
	Aphids	0 028 – 0 075	15-40	range  Begin applications when treatment thresholds have been
FOR USE AS AN OVICIDE	Budworm	0 047 – 0 075	25-40	reached  Use the higher rates within the listed rate range under conditions of heavy pest pressure
				Thorough coverage is important to obtain optimum control

## RESTRICTIONS Tobacco

Do not make more than 4 applications per season

Do not apply more than once every 7 days

Do not apply less than 7 days before harvest (PHI = 7 days)

Do not exceed a total of 0 3 lb active ingredient (16 ozs product) per acre per growing season

## STONE FRUIT (within Crop Group 12)

**SPRAY VOLUME FOR STONE FRUIT (within Crop Group 12)** Apply in a minimum finished spray volume of at least 10 gallons per acre by air or 50 gallons per acre by ground

		DOSAGE PER ACRE			
SITE	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30SG INSECTICIDE	PEST SPECIFIC DIRECTIONS	USE DIRECTIONS
STONE FRUIT (within Crop Group 12) Apricot Cherry (sweet tart)	Aphids Leafhoppers	0 047 - 0 10	25 53	Aphid species may differ in susceptibility to this product If you are unsure of the aphid species present and its susceptibility use the higher rates within the listed rate range	Begin applications when treatment thresholds have been reached  Thorough coverage is important to obtain optimum control  Complete sprays (every row) are recommended
Nectarine Peach Plum (chickasaw	Glassywinged sharpshooter	0 075 0 15	40-80		Residual control of labeled pests varies by rate Use higher rates for optimal and extended control
damson Japanese) Plumcot Prune (fresh)	Oriental Fruit Moth  Peach Twig Borer  Plum Curculio  Cat facing insects (such as tarnished plant bug and stinkbug)	0 10 – 0 15	53-80	For control of Oriental Fruit Moth and Peach Twig Borer make a delayed dormant application with oil prior to bud break and at moth flights using appropriate degree day models  For optimum control of Plum Curculio an early petal fall application is necessary followed by one or two cover sprays during the egg laying period Follow local recommendations for subsequent generations  The addition of horticultural oil is recommended for improved performance	
	Cherry Fruit Fly  Black Cherry Fruit Fly  Western Cherry Fruit Fly	010 015	53-80	Begin applications for cherry fruit fly black cherry fruit fly and western cherry fruit fly at adult emergence and continue on a 10 day spray interval through egg hatch. Proper application timing is critical for optimum control of fruit flies.	

San Jose Scale Japanese Beetle Rose Chafer	0 10 - 0 15	53-80	For San Jose Scale apply with a horticultural oil as a dormant/delayed dormant application and time in season applications for the crawler stage  The addition of horticultural oil for crawler stage applications may improve performance against San Jose Scale	
			Consult local recommendations regarding the use of oil	
			For Japanese Beetle adult beetles will stop feeding after application and mortality will occur within a few days	

## RESTRICTIONS Stone Fruit (within Crop Group 12)

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

Do not make more than 4 applications per season

Do not apply more than once every 10 days

Do not apply less than 7 days before harvest (PHI = 7 days)

Do not exceed a total of 0 6 lb active ingredient (32 0 ozs product) per acre per growing season

## **CUCURBITS** (within Crop Group 9)

SPRAY VOLUME FOR CUCURBITS (within Crop Group 9) Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground

		DOSAG	E PER ACRE	
SITE	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30SG INSECTICIDE	USE DIRECTIONS
CUCURBITS (within Crop Group 9) Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd (edible) Mormordica spp Muskmelon (hybrid and/or cultivars of Cucumis melo	Cucumber Beetle Spotted Striped Western Striped Melonworm Pickleworm	0 047 - 0 10	25-53	For Cucumber Beetles adult beetles will stop feeding after application and mortality will occur within a few days  For Melonworm Begin applications at first sign of foliar feeding and/or when larvae are present in the field  For Pickleworm Begin applications at first bloom and continue as needed  The use of spray adjuvants such as silicone based surfactants or crop oils may enhance coverage and improve pest control
including true cantaloupe cantaloupe carsaba crenshaw melon	Squash Bug Squash Vine Borer	0 10	5 3	Applications for Squash Bug are most effective against newly laid eggs and nymphs
golden pershaw melon honeydew melon honey balls mango melon	Aphids Leafhoppers	0 047 0 075	25-40	Aphid and Leafhopper species may differ in susceptibility to this product. If you are unsure of the species present and its susceptibility use the higher rates within the listed rate range.
mango meion Persian melon pineapple melon Santa Claus melon and snake melon)) Pumpkin Squash (summer and winter) Watermelon	Whitefly Sweet Potato Silver Leaf	0 047 – 0 10	25-53	Begin applications when whitefly adults appear prior to development of nymphs. Do not wait until heavy populations have become established. Make applications on a minimum 5. 7 day interval as long as pest pressure continues. Use the high rates within the listed rate range under heavy pest pressure.  Whiteflies have shown a tendency to develop insecticide resistance. For resistance management purposes alternating applications of different chemical classes reduces the potential for resistance development.

## RESTRICTIONS Cucurbits (within Crop Group 9)

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

Do not make more than 5 applications per season

Do not apply more than once every 5 days

Do not apply less than 0 days before harvest (PHI = 0 days)

Do not exceed a total of 0.5 lb acetamiprid active ingredient (26.5 ozs of ASSAIL 30 SG product) per acre per growing season including any pre transplant applications of acetamiprid (maximum pre transplant application rate of acetamiprid is 0.15 lb ai/A)

## TREE NUTS (within Crop Group 14) (including Pistachio)

SPRAY VOLUME FOR TREE NUTS (within Crop Group 14) (including Pistachio) Apply in a minimum finished spray volume of 10 gallons per acre by air or 50 gallons per acre by ground

		DOSAGE PER ACRE			
SITE PES	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30SG INSECTICIDE	PEST SPECIFIC DIRECTIONS	USE DIRECTIONS
TREE NUTS (within Crop Group 14) (including pistachio) Almond Beech nut Brazil nut Butternut Cashew Chestnut Chinquapin Filbert (hazelnut) Hickory nut	Aphids Leafhoppers	0 047 – 0 18	25-96	Aphid species may differ in susceptibility to this product. If you are unsure of the aphid species present and its susceptibility use the higher rate. Use the higher rates within the listed rate range for Black Pecan Aphid.  On large mature trees use of the higher rate within the listed rate range may be necessary for adequate control at the top of the trees. Use of an appropriate adjuvant will improve coverage and control.	Begin applications when treatment thresholds have been reached  Thorough coverage is important to obtain optimum control  Complete sprays (every row) are recommended  Use of pheromone traps in conjunction with degree days are good indicators that can be use to determine spray timings  Consult your local Extension Service Crop Advisor or Nippon Soda Co Ltd representative for additional information
Macadamia (bush nut) Pecan Pistachio Walnut	Glassywinged sharpshooter Pecan Nut Casebearer	0 075 0 15	40-80		
(black and English (Persian))	Codling Moth Oriental Fruit Moth Peach Twig Borer San Jose Scale Hickory Shuckworm Pecan Weevil Red Humped Caterpillar Filbertworm	0 10 0 18	53-96	Residual control varies by rate. Use the higher rate within the listed rate range for extended control and on tall mature trees with dense foliage.  For control of Oriental Fruit Moth (OFM) and Peach Twig Borer (PTB) make a delayed dormant application with oil prior to bud break. For Codling Moth. OFM Filbertworm and PTB make in season applications at moth flights using appropriate degree day models.  The addition of horticultural oil is recommended for improved performance. Consult local recommendations regarding the use of oil.  For best results against San Jose Scale apply as a dormant/delayed dormant application with oil and time in season applications for the crawler stage.  For best results against Pecan. Weevil use the highest rate within	

## Amendment to include asparagus DRAFT August 24 2011

i i	Walnut Husk Fly	0 12 – 0 15	64-80	Apply once gravid (egg producing) adult females are observed Add a recommended rate of husk fly bait If needed repeat application in 3 to 4 weeks
	Gill s Mealybug	0 15	80	Apply as crawlers emerge typically in early to mid June Apply with sufficient water to provide thorough coverage of all surfaces inclusion of a horticultural oil or penetrating adjuvant (no stickers) may enhance control

## RESTRICTIONS Tree Nuts (within Crop Group 14) (including pistachio)

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

Do not make more than 4 applications per season

Do not apply more than once every 14 days

Do not apply less than 14 days before harvest (PHI = 14 days)

Do not exceed a total of 0 72 lb active ingredient (38 4 ozs product) per acre per growing season

# EDIBLE PODDED LEGUME VEGETABLES (within Crop Sub Group 6A) and SUCCULENT SHELLED PEAS AND BEANS (within Crop Sub Group 6B)

SPRAY VOLUME FOR EDIBLE PODDED LEGUME VEGETABLES (within Crop Sub Group 6A) AND SUCCULENT SHELLED PEAS AND BEANS (within Crop Sub Group 6B) Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground

		DOSAG	E PER ACRE	
SITE	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30 SG INSECTICIDE	USE DIRECTIONS
EDIBLE PODDED LEGUME VEGETABLES (within Crop Sub Group 6A) and SUCCULENT SHELLED PEAS AND BEAMS (within)	Aphids Leafhoppers Cucumber Beetles Bean Leaf Beetle Mexican Bean Beetle	0 047 – 0 1	25-53	Begin applications when treatment thresholds have been reached  Thorough coverage is important to obtain optimum control  Aphid and Thrips species may differ in susceptibility to this
6B) Bean (Phaseolus	Whitefly	0 075 – 0 1	40-53	product If you are unsure of the aphid or thrips species present and its susceptibility use the higher rates within the listed rate range
	Thrips	0 085 – 0 1	45-53	

## RESTRICTIONS Edible podded legume vegetables (within Crop Sub Group 6A) and succulent shelled peas and beans (within Crop Sub Group 6B)

Do not make more than 3 applications per season

Do not apply more than once every 7 days

Do not apply less than 7 days before harvest (PHI = 7 days)

Do not exceed a total of 0 3 lb active ingredient (16 ozs product) per acre per growing season

## STRAWBERRIES AND OTHER LOW GROWING BERRIES (within Crop Sub Group 13 07G)

SPRAY VOLUME FOR STRAWBERRIES AND OTHER LOW GROWING BERRIES (within Crop Sub Group 13 07G) Apply in a minimum finished spray volume of 10 gallons per acre by air or 20 gallons per acre by ground

		DOSAGI	E PER ACRE	
SITE	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30 SG INSECTICIDE	USE DIRECTIONS
STRAWBERRIES AND OTHER LOW GROWING BERRIES (within Crop Sub Group 13 07G) Bearberry Bilberry Lowbush Biueberry Cloudberry Cranberry Lingonberry Muntries Partridgeberry and cultivars varieties and/or hybrids of these	Blueberry Maggot Spanworm Cherry Fruitworm Cranberry Fruitworm Flea Beetle Japanese Beetle Oblique Banded Leaf Roller Plantbugs (Lygus spp) Sap Beetles Thrips Whiteflies Fireworm (suppression) Gypsy Moth Sparganothis Fruitworm Cranberry Tipworm	0 075 - 0 13	40-69	Aphid and thrips species may differ in susceptibility to this product. If you are unsure of the species present and its susceptibility use the higher rates within the listed rate range.  Begin applications when treatment thresholds have been reached.  Use the higher rates under conditions of heavy pest pressure.  Thorough coverage is important to obtain optimum control.
	Aphids Leafhoppers Spittlebug	0 035 – 0 075	19-40	

## RESTRICTIONS STRAWBERRIES AND OTHER LOW GROWING BERRIES (within Crop Sub Group 13 07G)

Do not exceed a total of 13 8 oz of ASSAIL 30 SG Insecticide (0 26 lb ai) / A during each growing season

Do not make more than 2 applications per growing season

Do not apply more than once every 7 days

Do not apply less than 1 day before harvest (PHI = 1 day)

## BLUEBERRIES AND OTHER BUSH AND CANE BERRIES (within Crop Sub Groups 13 07A and B)

**SPRAY VOLUME FOR BLUEBERRIES AND OTHER BUSH AND CANE BERRIES** Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground

SITE		DOSAC	SE PER ACRE	
	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30 SG INSECTICIDE	USE DIRECTIONS
BLUEBERRIES AND OTHER BUSH	Aphids Leafhoppers	0 047 – 0 1	25-53	Begin applications when treatment thresholds have been reached
BERRIES (within Crop Sub Group 13 07B) Aronia berry	Whitefly	0 075 – 0 1	40-53	Thorough coverage is important to obtain optimum control
blueberry highbush and lowbush buffalo currant Chilean guava currant red and black elderberry European barberry gooseberry cranberry highbush edible honeysuckle huckleberry jostaberry Juneberry lingonberry natie currant salal sea buckthom and cultivars varieties and/or hybrids of these  CANE BERRIES (within Crop Sub Group 13 07A) Blackberry Loganberry Raspberry (black and red) wild raspberry and cultivars varieties and/or hybrids of these	Japanese Beetle Blueberry Maggot Sap Beetles Tarnished Plant Bug Strawberry Rootworm Cranberry Fruitworm Cherry Fruitworm Flea Beetle Spanworm Thrips Blueberry Gall Midge Western Raspberry Fruit Worm (adult)	0 085 – 0 1	45-53	Aphid and Thrips species may differ in susceptibility to this product. If you are unsure of the aphid or thrips species present and its susceptibility, use the higher rates within the listed rate range.

## RESTRICTIONS Blueberries and other Bush and Cane Berries (within Crop Sub Groups 13 07A and B)

Do not make more than 5 applications per season

Do not apply more than once every 7 days

Do not apply less than 1 day before harvest (PHI = 1 day)

Do not exceed a total of 0 5 lb active ingredient (26 7 ozs product) per acre per growing season

## ONIONS AND OTHER BULB VEGETABLES (within Crop Group 3 07)

SPRAY VOLUME FOR ONIONS AND OTHER BULB VEGETABLES Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground

SITE		DOSAG	E PER ACRE	
	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30 SG INSECTICIDE	USE DIRECTIONS
ONIONS AND OTHER BULB VEGETABLES (within Crop Group 3 07) Chives fresh leaves Chinese chives fresh leaves daylily bulbs Elegans hosta Fritilaria leaves and bulbs bulb garlic serpent bulb garlic kurrat ladys leek wild leek lily bulb Beltsville bunching onion bulb onion Chinese bulb onion fresh onion green onion macrostem onion pearl onion potato bulb onion treetops onion Welsh onion tops shallot bulb and fresh leaves and cultivars vanties and/or hybrids of these	Thrips	0 094 – 0 15	50-80	Begin applications when treatment thresholds have been reached  Thorough coverage is important to obtain optimum control  Thrips species may differ in susceptibility to this product If you are unsure of the thrips species present and its susceptibility use the higher rates within the listed rate range  The use of spray adjuvants such as silicone based surfactants or horticultural oils may also enhance coverage and improve pest control

## RESTRICTIONS Onions and Other Bulb Vegetables (within Crop Group 3 07)

Do not make more than 4 applications per season

Do not apply more than once every 7 days

Do not apply less than 7 days before harvest (PHI = 7 days)

Do not exceed a total of 0 6 lb acetamiprid active ingredient (32 ozs of ASSAIL 30 SG product) per acre per growing season including any pre transplant applications of acetamiprid (maximum pre transplant application rate of acetamiprid is 0 15 lb ai/A)

## CLOVER (for use in ID OR and WA only)

SPRAY VOLUME FOR CLOVER Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground

SITE PEST		DOSAGE PER ACRE		
	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30 SG INSECTICIDE	USE DIRECTIONS
CLOVER	Aphids including clover and pea aphid	0 047 0 075	25-40	Begin applications when treatment thresholds have been reached  Thorough coverage is important to obtain optimum control

## RESTRICTIONS CLOVER (for use in ID OR and WA only)

Do not make more than one (1) application per season at the maximum rate within the listed rate range

Do not apply less than 56 days before harvest (PHI = 56 days)

Do not exceed a total of 0 075 lb active ingredient (4 0 ozs product) per acre

## **ASPARAGUS**

SPRAY VOLUME FOR ASPARAGUS Apply in a minimum finished spray volume of 5 gallons per acre by air or 20 gallons per acre by ground

		DOSAG	E PER ACRE	
SITE	PEST	POUNDS ACTIVE	OUNCES ASSAIL 30 SG INSECTICIDE	USE DIRECTIONS
ASPARAGUS	Asparagus thrips	0 1	53	Begin applications when treatment thresholds have been reached Thorough coverage is important to obtain optimum control
	Japanese beetle Tarnished plant bug			Apply to foliage after the cutting season Begin applications when treatment thresholds have been reached Thorough coverage is important to obtain optimum control
	Asparagus miner (suppression)			Apply to adults before egg laying Begin applications when treatment thresholds have been reached Thorough coverage is important to obtain optimum control
	Leaf hopper	0 047 – 0 075	25-40	Begin applications when treatment thresholds have been reached Thorough coverage is important to obtain optimum control
	Asparagus aphids	0 047 – 0 1	25 53	Apply to new plantings and when plants are young Begin applications when treatment thresholds have been reached Thorough coverage is important to obtain optimum control
	Asparagus beetle Spotted asparagus beetle	0 047 – 0 1	25 53	Begin sampling early in the season and throughout the growing season Begin applications when treatment thresholds have been reached Thorough coverage is important to obtain optimum control

## **RESTRICTIONS Asparagus**

Do not make more than two (2) applications per growing season

Do not apply more than once every 10 days

Do not apply less than 1 day before harvest (PHI = 1 days)

Do not exceed a total of 0.2 lb active ingredient (10.7 ozs product) per acre per growing season

## Conditions of Sale and Limitation of Warranty and Liability

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials resistant strains or other influencing factors in the use of the product, which are beyond the control of Nippon Soda. Co. Ltd. and Seller, All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Nippon Soda. Co. Ltd. and Seller harmless for any claims relating to such factors.

To the extent allowable by applicable law Nippon Soda Co. Ltd. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions.

Amendment to include asparagus DRAFT August 24 2011

not reasonably foreseeable to or beyond the control of Seller or Nippon Soda Co Ltd and Buyer and User assume the risk of any such use TO THE EXTENT ALLOWABLE BY APPLICABLE LAW NIPPON SODA CO LTD MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE

To the extent allowable by applicable law in no event shall Nippon Soda Co. Ltd. or Seller be liable for any incidental consequential or special damages resulting from the use or handling of this product. TO THE EXTENT ALLOWABLE BY APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER AND THE EXCLUSIVE LIABILITY OF NIPPON SODA CO. LTD. AND SELLER FOR ANY AND ALL CLAIMS. LOSSES INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY. CONTRACT NEGLIGENCE. TORT. STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT. SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR. AT THE ELECTION OF NIPPON SODA CO. LTD. OR SELLER. THE REPLACEMENT OF THE PRODUCT.

Nippon Soda Co Ltd and Seller offer this product and Buyer and User accept it subject to the foregoing conditions of sale and limitations of warranty and of liability which may not be modified except by written agreement signed by a duly authorized representative of Nippon Soda Co Ltd

ASSAIL is a registered trademark of Nippon Soda Co Ltd