For insect control in landscape and production
ornamental plants, greenhouse vegetables and
transplants, fruits, and nut trees. Not for use in
residential greenhouses.

ACTIVE INGREDIENT: Flupyradifurone* .............. 17.09%
OTHER INGREDIENTS: ........................................... 82.91%
TOTAL: 100.0%
Contains 1.67 pounds Flupyradifurone per gallon
*CAS Number 951659-40-8
EPA Reg. No. 432-1575

KEEP OUT OF REACH OF CHILDREN

CAUTION

See Back Panel for First Aid Instructions and Booklet for Complete
Precautionary Statements and Directions for Use

For MEDICAL and TRANSPORTATION Emergencies
ONLY Call 24 Hours A Day 1-800-334-7577
For PRODUCT USE Information Call
1-800-331-2867

Net Contents
64 Fl Oz (1.9 L)
84989509
85371428B 190417AV1
FIRST AID

If swallowed:
• Call a poison control center or doctor immediately for treatment advice.
• Have person sip a glass of water if able to swallow.
• Do not induce vomiting unless told to do so by a poison control center or doctor.
• Do not give anything by mouth to an unconscious person.

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.

In case of emergency call toll free the Bayer CropScience Emergency Response Telephone No. 1-800-334-7577.
Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

NOTE TO PHYSICIAN: No specific antidote is available. Treat the patient symptomatically.

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION
• Harmful if swallowed.
• Harmful if absorbed through skin.
• Causes moderate eye irritation.
• Avoid contact with skin, eyes, and clothing.
• Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

PERSONAL PROTECTIVE EQUIPMENT (PPE)
Applicators and other handlers must wear:
• Long sleeved shirt and long pants
• Chemical resistant gloves made out of: barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber ≥ 14 mils, polyethylene, polyvinyl chloride ≥ 14 mils, or viton ≥ 14 mils
• Shoes and socks
Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS
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.
• Users should remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
• User should remove PPE immediately after handling this product.

USER SAFETY REQUIREMENTS
Follow manufacturer’s instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENVIRONMENTAL HAZARDS
Terrestrial Use
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 wash-water or rinse water.

Non-Target Organisms
This pesticide is toxic to aquatic invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

Toxic to adult bees in laboratory studies via oral exposure, however, not toxic to bees through contact exposure, and field studies conducted with this product have shown no effects on honeybee colony development.

Surface Water Label Advisories
Flupyradifurone and its degradate difluoroacetic acid 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. Flupyradifurone and its degradate difluoroacetic acid are classified as having medium and high potential, respectively, for reaching surface water via run-off for several months or more 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 flupyradifurone and its degradate difluoroacetic acid from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

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.

CONDITIONS OF SALE AND LIMITATIONS OF WARRANTY AND LIABILITY
Read the entire Directions for Use, Conditions, Disclaimer of Warranties and Limitations of Liability before using this product. If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Conditions, Disclaimer of Warranties and Limitations of Liability.

CONDITIONS: The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Ineffectiveness, plant injury, other property damage, as well as other unintended consequences may result because of factors beyond the control of Bayer CropScience LP. Those factors include, but are not limited to, weather conditions, presence of other materials or the manner of use or application. All such risks shall be assumed by the user or buyer.
DISCLAIMER OF WARRANTIES: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, THAT EXTEND BEYOND THE STATEMENTS MADE ON THIS LABEL. NO AGENT OF BAYER CROPSCIENCE IS AUTHORIZED TO MAKE ANY WARRANTIES BEYOND THOSE CONTAINED HEREIN OR TO MODIFY THE WARRANTIES CONTAINED HEREIN. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, BAYER CROPSCIENCE DISCLAIMS ANY LIABILITY WHATSOEVER FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT.

LIMITATIONS OF LIABILITY: TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER FOR ANY AND ALL LOSSES, INJURIES OR DAMAGES RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, SHALL NOT EXCEED THE PURCHASE PRICE PAID, OR AT BAYER CROPSCIENCE’S ELECTION, THE REPLACEMENT OF PRODUCT.

DIRECTIONS FOR USE
It is a violation of federal law to use this product in a 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.

POLLINATOR BEST MANAGEMENT PRACTICE
In order to minimize exposure to pollinators, it is recommended that foliar insecticides are applied late in the afternoon, evening, or at night outside of daily peak foraging periods.

Not for sale, distribution or use in Nassau and Suffolk Counties New York State.

No aerial application in New York State.

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours, with the exception of California. In the state of California the REI is 12 hours. Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard under certain circumstances, allows workers to enter the treated area without restrictions if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water), is:
• Coveralls
• Chemical resistant gloves
• Shoes plus socks
PRODUCT INFORMATION
ALTUS®:
• Is a broad-spectrum insecticide, formulated in a 1.67 lb Al/gallon (200 grams Al/liter) soluble liquid.
• Belongs to a class of chemicals known as the Butenolides.
• Is acropetally systemic, moving from roots to the leaves in the case of soil applications.
• Is translaminar through the leaf tissue (can provide control of labeled pests on the underside of leaves) and acropetally systemic, moving from points of contact to leaf tips in the case of foliar applications.
• Is readily absorbed into leaf tissue and is considered rainfast within 1 hour after spray dries.

FOR USE ON:
• Ornamentals in greenhouses, field and container nurseries, lathhouses, shadehouses, interior- scapes, golf courses, and residential, commercial, municipal, and institutional landscapes.
• Vegetables and fruit crops (including transplants) in greenhouses, field and container nurseries, lathhouses, shadehouses, and residential, commercial, municipal, and institutional landscapes.
• Tree nut crops in field and container nurseries, lathhouses, shadehouses, and residential, commercial, municipal, and institutional landscapes.

ALTUS may be:
• Applied as a foliar application using properly calibrated ground sprayers, or through properly designed, sprinkler-type overhead chemigation equipment (See Chemigation – Directions for Use section below).
• Applied as a soil application using low-pressure drip, trickle or micro-sprinkler chemigation, plant drench, or a greenhouse tray drench. For seedling flats or trays, only apply with broadcast, foliar applications or where product is intended to be washed from foliage to soil prior to drying on foliage.

USE RESTRICTIONS
• Do not tank mix with azole fungicides (FRAC group 3) during bloom period.
• Not for use on crops intended to be grown for seed unless specified otherwise in the crop specific sections of this label or allowed by state specific 24(c) labeling.
• Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per calendar year, except as noted below.
• Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per crop production cycle for greenhouses and container grown ornamentals in nurseries.
• No aerial application in New York State.

RESISTANCE MANAGEMENT
For resistance management, ALTUS contains a Group 4D insecticide. Any insect population may contain individuals naturally resistant to ALTUS and other Group 4D insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.
To delay insecticide resistance, take the following steps:

- Avoid application of more than 2 consecutive sprays of Altus or other insecticides in the same group in a season.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Bayer representatives at 1-800-331-2867.

**CHEMIGATION**

**Types of irrigation systems**

**Altus** may be applied by chemigation:
- For foliar applications, through overhead sprinkler-type irrigation systems, including center pivot, lateral move, side roll, or overhead solid-set systems or equivalent equipment.
- For soil applications, through low-pressure drip, trickle or micro-sprinkler systems or equivalent equipment.

**Uniform Water Distribution and System Calibration**

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

**Chemigation Monitoring**

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
Required System Safety Devices
Use for sprinkler or drip (trickle) chemigation:
The system must contain a functional check valve, vacuum relief valve, and low-pressure drain
appropriately located on the irrigation pipeline to prevent water source contamination from 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. di-
aphragm pump) effectively designed and constructed of materials that are compatible with pes-
ticides and capable of being fitted with a system interlock.

For sprinkler systems: Do not apply when wind speed favors drift beyond the area intended
for treatment.

Use for floor, furrow and border chemigation:
Systems using a gravity flow pesticide dispensing system must meter the pesticide into the
water at the head of the field and downstream of a hydraulic discontinuity such as a drop struc-
ture or weir box to decrease potential for water source contamination from back flow if water
flow stops.
Systems utilizing a pressurized water and pesticide injection system must meet the following
requirements: The system must contain a functional check valve, vacuum relief valve, and low-
pressure drain appropriately located on the irrigation pipeline to prevent water source contamina-
tion from backflow. The pesticide injection pipeline must contain a functional, automatic,
quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pes-
ticide 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 automat-
ically or manually shut down. The system must contain functional interlocking controls to auto-
matically 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. di-
aphragm pump) effectively designed and constructed of materials that are compatible with pes-
ticides and capable of being fitted with a system interlock.

Using Water From Public Water Systems
Do not connect an irrigation system (including greenhouse systems) used for pesticide applica-
tion to a public water system unless the pesticide label-prescribed safety devices for public
cwater 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 dis-
charged into a reservoir tank prior to pesticide introduction. There shall be a complete physical
break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir
tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must
contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward
the injection pump. 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 in-
terlocking 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.

Injection For Chemigation
Inject the specified dosage of ALTUS into the irrigation main water stream: (1) through a constant
flow, metering device; (2) into the center of the main line flow via a pilot tube or equivalent; (3)
at a point ahead of at least one, right-angle turn in the main stream flow such that thorough
mixing with the irrigation water is ensured.

Center-Pivot and Automatic-Move Linear Systems
Inject the specified dosage per acre continuously for one complete revolution (center pivot) or
move of the system. The system should be run at maximum speed. It is recommended that noz-
zles in the immediate area of control panels, chemical supply tanks, pumps, and system safety
devices be plugged to prevent chemical contamination of these areas. The use of END GUNS is
NOT RECOMMENDED. End guns that provide uneven distribution of treated water can result in
lack of effectiveness or illegal pesticide residues in or on the crop.

Solid Set and Manually Controlled Linear Systems
For foliar application, injection should be applied at the end of the irrigation cycle and followed
by sufficient water to flush the product out of the irrigation system.

Flushing and Cleaning the Chemical Injection System
At the end of the application period, allow time for all lines to flush the pesticide through all nozzles
or emitters before turning off irrigation water. To ensure the lines are flushed and free of pesticides,
a dye indicator may be injected into the lines to mark the end of the application period.

In order to apply pesticides accurately, the chemical injection system must be kept clean, free
of chemical or fertilizer residues and sediments. Refer to your owner’s manual or ask your equip-
ment supplier for the cleaning procedure for your injection system.

SPRAY DRIFT MANAGEMENT
The interaction of many equipment and weather related factors determine the potential for spray
drift. The applicator is responsible for considering all of these factors when making application
decisions. Consult the local Cooperative Extension for additional information. Avoiding spray drift
is the responsibility of the applicator.

Droplet Size
Use the largest droplet size which provides sufficient control and coverage. Higher flow nozzles
and lower pressures will produce larger droplets and minimize drift. Low drift and air induction
nozzles will provide lower drift potential. Use larger droplet size when applying in hot, dry con-
ditions (droplet evaporation is higher under these conditions, thus reducing the effective droplet
size and increasing drift potential).
Wind Speed
Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. Applications during gusty or calm wind conditions should be avoided. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any given wind speed. For applications made in-furrow or below soil-level, wind speed restrictions are not applicable.

Temperature Inversions
Drift potential is high during temperature inversions and applications should be avoided under these conditions. Temperature inversions 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. If fog is not present, inversions can also be identified by the movement of smoke or dust from a ground source -- smoke or dust that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion.

Sensitive Areas
When applying adjacent to residential areas, water bodies, habitats known to have threatened or endangered species, or non-target crops, drift can be minimized to these areas by making applications when the wind direction is away from these areas. Where state or local authorities have more stringent regulations, they should be observed.

Aerial Applications
• Mount the spray boom on the aircraft so as to minimize drift caused by wing tip vortices.
• The minimum practical boom length should be used, and should not exceed 75% of the wing span or rotor diameter.
• Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety.
• No aerial application in New York State.

COMPATIBILITY TESTING AND TANK MIX PARTNERS
• If ALTUS is to be tank mixed with other pesticides, compatibility should be tested prior to mixing.
• It is the pesticide user’s responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Compatibility
ALTUS is physically and biologically compatible with many registered pesticides and fertilizers or micronutrients. However, it is known that many components, including pesticides, fertilizers, micronutrients, and spray adjuvants, may be present in a tank mix combination. There is potential for adverse chemical reactions. It is impossible to determine physical, biological, and plant compatibility for all scenarios that may be encountered; therefore, it is recommended that users determine the chemical, physical, biological and plant compatibility of such mixes prior to application on a broad commercial scale.

Order of Mixing
Altus may be used with other recommended pesticides, fertilizers, and micronutrients. The proper mixing procedure for ALTUS alone or in tank mix combinations with other pesticides is the following:
1. Fill the spray tank 1/4 to 1/3 full with clean water.
2. While recirculating and with the agitator running, add any products in PVA bags (See Note).
   Allow time for thorough mixing.
3. Continue to fill spray tank with water until 1/2 full.
4. Add any wettable powder (WP), water dispersible granule (WG/WDG) products, or “flowable”
(FL/SC) type products.
5. Allow enough time for thorough mixing of each product added to tank.
6. Add required amount of ALTUS (SL).
7. If applicable, add any remaining tank mix components: emulsifiable concentrates (EC), fertilizers and micronutrients.
8. Fill spray tank to desired level and maintain constant agitation to ensure uniformity of spray mixture.

IMPORTANT: Do not use PVA packets in a tank mix with products that contain boron or release free chlorine. The resultant reaction of PVA and boron or free chlorine is a plastic that is not soluble in water or solvents.

ORNAMENTALS DIRECTIONS FOR USE
ORNAMENTAL USE RESTRICTIONS
• Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per calendar year, except as noted below.
• Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per crop production cycle for greenhouses and container grown ornamentals in nurseries.
• Do not exceed 1 drench application per crop production cycle for greenhouse and container nursery ornamentals.
• Do not exceed 1 drench application per calendar year for outdoor landscape annual flowers.

Application Method (Foliar)
Suggested volumes for foliar application are 50 – 100 gallons/Acre.

FOLIAR APPLICATION RATES FOR GREENHOUSE, NURSERY, AND LANDSCAPE ORNAMENTALS

<table>
<thead>
<tr>
<th>PLANT</th>
<th>PEST</th>
<th>APPLICATION RATE FL OZ PRODUCT/ACRE</th>
<th>MINIMUM APPLICATION INTERVAL (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ornamental Plants including Flowers, Foliage Plants Shrubs, Trees, and Groundcovers</td>
<td>Aphids</td>
<td>7.0 – 10.5</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Citrus Leafminer (suppression)</td>
<td>14.0</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Katydid nymphs (suppression)</td>
<td>10.5 – 14.0</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Leafhoppers, Planthoppers</td>
<td>7.0 – 10.5</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Mealybugs (including citrus mealybug, Madeira mealybug, and vine mealybug)</td>
<td>10.5 – 14.0</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Plant bugs (including lace bugs)</td>
<td>10.5 – 14.0</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Psyllids</td>
<td>10.5 – 14.0</td>
<td>10</td>
</tr>
</tbody>
</table>

APPLICATION NOTES
Start treatments when pests are first detected. Use the higher rate for higher pest infestation levels.

(continued)
### FOLIAR APPLICATION RATES FOR GREENHOUSE, NURSERY, AND LANDSCAPE ORNAMENTALS (continued)

<table>
<thead>
<tr>
<th>PLANT</th>
<th>PEST</th>
<th>APPLICATION RATE (FL OZ PRODUCT/ACRE)</th>
<th>MINIMUM APPLICATION INTERVAL (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ornamental Plants including Flowers, Foliage Plants Shrubs, Trees, and Groundcovers</td>
<td>Citricola scale, Euonymus scale, Orange scale, Oyster-shell scale, San Jose scale, Barnacle scale (suppression)</td>
<td>10.5 – 14.0</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Thrips (including Western flower thrips)</td>
<td>10.5 – 14.0</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Whiteflies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Christmas Trees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Aphids</td>
<td>7.0 – 14.0</td>
<td>7</td>
</tr>
</tbody>
</table>

**APPLICATION NOTES**

- Start treatments when pests are first detected.
- Use the higher rate for higher pest infestation levels.

### Restrictions

- Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per calendar year, except as noted below.
- Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per crop production cycle for greenhouses and container grown ornamentals in nurseries.


2. Time applications for suppression of barnacle scale according to crawler stage. Two applications may be required to achieve best efficacy.

3. Control of thrips in greenhouses. Suppression for nursery and landscape.

ALTUS may be applied at the specified dosage by the following methods:

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment; or
- Basal drench in sufficient water to move ALTUS into root-zone.
### DRENCH APPLICATION RATES FOR GREENHOUSE AND CONTAINER NURSERY ORNAMENTALS

<table>
<thead>
<tr>
<th>PLANT</th>
<th>PEST</th>
<th>APPLICATION RATE FL OZ PRODUCT/100 GALLONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ornamental Plants including Flowers, Foliage Plants, Shrubs, Trees*, and Groundcovers</td>
<td>Aphids</td>
<td>2.8 – 3.7</td>
</tr>
<tr>
<td></td>
<td>Black vine weevil (larva)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leafhoppers, Planthoppers</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mealybugs (including citrus mealybug, Madeira mealybug, and vine mealybug)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plant bugs (including lace bugs)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psyllids</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Royal palm bug</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Whiteflies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vine Mealybug</td>
<td></td>
</tr>
</tbody>
</table>

**APPLICATION NOTES**
Apply treatment when pests are first detected. Choose lower rate for light infestation and the higher rate for heavy infestation.

* For treatment of seedlings and saplings

**Restrictions**
- Do not exceed 1 drench application of ALTUS per crop production cycle.
- Do not exceed 28 fl oz of product per acre per year.
- Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per calendar year, except as noted below.
- Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per crop production cycle for greenhouses and container grown ornamentals in nurseries.
- Do not apply to areas which are water logged or saturated, which will not allow penetration into the root zone of the plant.

### DRENCH APPLICATION RATES FOR ANNUAL LANDSCAPE ORNAMENTALS

<table>
<thead>
<tr>
<th>PLANT</th>
<th>PEST</th>
<th>APPLICATION RATE FL OZ PRODUCT/100 GALLONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Flowers</td>
<td>Aphids</td>
<td>2.8 – 3.7</td>
</tr>
<tr>
<td></td>
<td>Black vine weevil (larva)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leafhoppers, Planthoppers</td>
<td></td>
</tr>
</tbody>
</table>

**APPLICATION NOTES**
Apply treatment when pests are first detected. Choose lower rate for light infestation and the higher rate for heavy infestation.
### Drench Application Rates for Annual Landscape Ornamentals (continued)

<table>
<thead>
<tr>
<th>PLANT</th>
<th>PEST</th>
<th>APPLICATION RATE FL OZ PRODUCT/100 GALLONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual Flowers</td>
<td>Mealybugs (including citrus mealybug, Madeira mealybug, and vine mealybug)</td>
<td>2.8 – 3.7</td>
</tr>
<tr>
<td></td>
<td>Plant bugs (including lace bugs)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psyllids</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Whiteflies</td>
<td></td>
</tr>
</tbody>
</table>

**Application Notes**

Apply treatment when pests are first detected. Choose lower rate for light infestation and the higher rate for heavy infestation.

**Restrictions**

- Do not exceed 1 drench application of ALTUS per calendar year.
- Do not exceed 28 fl oz of product per acre per year.
- Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per calendar year, except as noted below.
- Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per crop production cycle for greenhouses and container grown ornamentals in nurseries.
- Do not apply to areas which are water logged or saturated, which will not allow penetration into the root zone of the plant.
### Crops Directions for Use

**Crop Use Restrictions and Precautions**

- Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per calendar year, except as noted below.
- Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per crop production cycle for greenhouses and container grown ornamentals in nurseries.

**Application Method (Foliar)**

Suggested volumes for foliar application are 50 – 100 gallons/Acre.

### Foliar Application Rates to Nursery and Landscape Fruits and Tree Nuts

<table>
<thead>
<tr>
<th>Plant</th>
<th>Pest</th>
<th>Application Rate FL OZ PRODUCT/ACRE</th>
<th>Minimum Interval Between Applications (Days)</th>
<th>Pre-Harvest Interval PHI (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bushberry (including blueberry, currant, honeysuckle, huckleberry) (except cranberry)</td>
<td>Aphids</td>
<td>7.0 – 10.5</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Blueberry thrips- <em>Frankliniella vaccini</em> (feeding damage reduction)</td>
<td>10.5 – 14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Blueberry thrips- <em>Scirtothrips citri</em> (suppression)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Blueberry maggot</td>
<td>12.0 – 14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caneberry (including blackberry, raspberry, wild raspberry)</td>
<td>Aphids</td>
<td>7.0 – 10.5</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Whiteflies</td>
<td>10.5 – 14.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Application Notes**

- Start treatments when pests are first detected.
- Choose lower rate for light infestation and the higher rate for heavy infestation.

(continued)
### FOLIAR APPLICATION RATES TO NURSERY AND LANDSCAPE FRUITS AND TREE NUTS (continued)

<table>
<thead>
<tr>
<th>PLANT</th>
<th>PEST</th>
<th>APPLICATION RATE FL OZ PRODUCT/ACRE</th>
<th>MINIMUM INTERVAL BETWEEN APPLICATIONS (Days)</th>
<th>PRE-HARVEST INTERVAL PHI (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citrus (including grapefruit, kumquat lemon, lime, orange, tangerine, mandarin)</td>
<td>Aphids</td>
<td>7.0 – 10.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Citrus mealybug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asian citrus psyllid¹</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Citricola scale</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Barnacle scale² (suppression)</td>
<td>10.5 – 14.0</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Citrus thrips- Scirtothrips citri (suppression)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Katydid nymphs (suppression)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Citrus leafminer (suppression)</td>
<td>14.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### APPLICATION NOTES

Start treatments when pests are first detected.
Aerial minimum application volume: 10 gallons/Acre
Choose lower rate for light infestation and the higher rate for heavy infestation.

(continued)
### FOLIAR APPLICATION RATES TO NURSERY AND LANDSCAPE FRUITS AND TREE NUTS (continued)

<table>
<thead>
<tr>
<th>PLANT</th>
<th>PEST</th>
<th>APPLICATION RATE FL OZ PRODUCT/ACRE</th>
<th>MINIMUM INTERVAL BETWEEN APPLICATIONS (Days)</th>
<th>PRE-HARVEST INTERVAL PHI (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low growing berry (including blueberry, strawberry) (except cranberry)</td>
<td>Aphids</td>
<td>7.0 – 10.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Blueberry thrips-Frankliniella vaccinii (feeding damage reduction)</td>
<td>10.5 – 14.0</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Blueberry thrips-Scirtothrips citri (suppression)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Whiteflies</td>
<td>12.0 – 14.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**APPLICATION NOTES**

Start treatments when pests are first detected. Choose lower rate for light infestation and the higher rate for heavy infestation.
## Foliar Application Rates to Nursery and Landscape Fruits and Tree Nuts

(continued)

<table>
<thead>
<tr>
<th>PLANT</th>
<th>PEST</th>
<th>APPLICATION RATE FL OZ PRODUCT/ACRE</th>
<th>MINIMUM INTERVAL BETWEEN APPLICATIONS (Days)</th>
<th>PRE-HARVEST INTERVAL PHI (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pome Fruit (including apple, crabapple, loquat, pear, quince)</td>
<td>Aphids (except Woolly apple aphid)</td>
<td>7.0 – 10.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leafhoppers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Oystershell scale</td>
<td>10.5 – 14.0</td>
<td>10</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Pear psylla</td>
<td>10.5 – 14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>San Jose Scale</td>
<td>12.0 – 14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Woolly apple aphid (suppression)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### APPLICATION NOTES
Start treatments when pests are first detected. Aerial minimum application volume: 10 gallons/Acre. Choose lower rate for light infestation and the higher rate for heavy infestation.

<table>
<thead>
<tr>
<th>Small Fruit Vine Climbing (including gooseberry, grape) (except fuzzy kiwifruit)</th>
<th>Leafhoppers</th>
<th>7.0 – 10.5</th>
<th>10</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vine mealybug</td>
<td>12.0 – 14.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### APPLICATION NOTES
Start treatments when pests are first detected. Choose lower rate for light infestation and the higher rate for heavy infestation.

<table>
<thead>
<tr>
<th>Stone Fruit (including apricot, cherry, nectarine, peach, plum, plumcot)</th>
<th>Aphids</th>
<th>7.0 – 10.5</th>
<th>10</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>San Jose Scale</td>
<td>10.5 – 14.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### APPLICATION NOTES
Start treatments when pests are first detected. Choose lower rate for light infestation and the higher rate for heavy infestation.

(continued)
### Foliar Application Rates to Nursery and Landscape Fruits and Tree Nuts (continued)

<table>
<thead>
<tr>
<th>Plant</th>
<th>Pest</th>
<th>Application Rate FL OZ Product/Acre</th>
<th>Minimum Interval Between Applications (Days)</th>
<th>Pre-Harvest Interval PHI (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tree Nuts (including brazil nut, cashew, chestnut, coconut, ginkgo, hazelnut, pecan, pine nut, pistachio, walnut) (except almond)</td>
<td>Aphids</td>
<td>7.0 – 14.0</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Whiteflies</td>
<td>10.5 – 14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>APPLICATION NOTES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Start treatments when pests are first detected. Aerial minimum application volume: 10 gallons/Acre. Choose lower rate for light infestation and the higher rate for heavy infestation.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plant</th>
<th>Pest</th>
<th>Application Rate FL OZ Product/Acre</th>
<th>Minimum Interval Between Applications (Days)</th>
<th>Pre-Harvest Interval PHI (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tropical and Subtropical Fruit (including avocado, banana, mango, papaya, persimmon, plantain, pomegranate)</td>
<td>Aphids</td>
<td>7.0 – 14.0</td>
<td>14</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Whiteflies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Avocado thrips - <em>Scirtothrips persea</em> (suppression)</td>
<td>10.5 – 14.0</td>
<td>14</td>
<td>(Pomegranate 7)</td>
</tr>
<tr>
<td><strong>APPLICATION NOTES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Start treatments when pests are first detected. Aerial minimum application volume: 10 gallons/Acre. Choose lower rate for light infestation and the higher rate for heavy infestation.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Restrictions**
- Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per calendar year, except as noted below.
- Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per crop production cycle for greenhouses and container grown ornamentals in nurseries.

1. For Florida and Texas only, minimum application volumes: 2.5 gallons/Acre (Ground); 3 gallons/Acre (Aerial) for control of Asian citrus psyllid. For control or suppression of other pests, application volumes should be increased to provide thorough and complete coverage to obtain adequate control.
2. Time applications for suppression of scale according to crawler stage. Two applications may be required to achieve best efficacy.
3. Combine ALTUS with a horticultural oil for early-season applications targeting San Jose scale. Suppression in Idaho and Oregon.

**Greenhouse Crops and Transplants Directions for Use**
- Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per calendar year, except as noted below.
<table>
<thead>
<tr>
<th>PLANT</th>
<th>PEST</th>
<th>APPLICATION RATE FL OZ PRODUCT/ACRE</th>
<th>MINIMUM APPLICATION INTERVAL (Days)</th>
<th>PRE-HARVEST INTERVAL PHI (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cucumbers*</td>
<td>Aphids</td>
<td>7 – 12.0</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Leafhoppers</td>
<td>7 – 10.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Squash bug</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Whiteflies</td>
<td>10.5 – 14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lettuce</td>
<td>Aphids</td>
<td>7 – 12.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leafhoppers</td>
<td>7 – 10.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Whiteflies</td>
<td>10.5 – 14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peppers and Tomatoes</td>
<td>Aphids</td>
<td>7 – 12.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leafhoppers</td>
<td>7 – 10.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Colorado potato beetle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psyllid</td>
<td>10.5 – 14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Whiteflies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chilli thrips - <em>Scirtothrips dorsalis</em> (suppression)</td>
<td>12.0 - 14.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TYLCSV - Tomato yellow leaf curl virus (suppression)</td>
<td>14.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**APPLICATION NOTES**

- Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per crop production cycle for greenhouses and container grown ornamentals in nurseries.
- Do not make more than 1 application per crop of transplants prior to transplanting, regardless of method of application.

Apply when pest thresholds have been reached. Minimum application volume is 50 gallons per acre. Use appropriate spray volume for adequate crop foliage spray coverage. Spray crop to wet not to drip. Thorough, uniform coverage of the crop is required for optimum control. Use the higher rate for higher pest infestation levels. A second application may be made if necessary. Choose lower rate for light infestation and the higher rate for heavy infestation.

* May cause some leaf yellowing and/or mottling.
Restrictions

- Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per calendar year, except as noted below.
- Do not apply more than 0.365 lb flupyradifurone/Acre (28 fl oz of Altus) per crop production cycle for greenhouses and container grown ornamentals in nurseries.

Application Method (Drench)

**DRENCH APPLICATION RATES FOR GREENHOUSE CROPS**

<table>
<thead>
<tr>
<th>PLANT</th>
<th>PEST</th>
<th>APPLICATION RATE FL OZ PRODUCT/100 GALLONS</th>
<th>PRE-HARVEST INTERVAL PHI (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cucumbers*</td>
<td>Aphids</td>
<td>2.8 – 3.7</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Leafhoppers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Whiteflies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lettuce</td>
<td>Aphids</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leafhoppers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Whiteflies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peppers and Tomatoes</td>
<td>Aphids</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Leafhoppers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psyllid</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Whiteflies</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mealybug (suppression)</td>
<td>3.7</td>
<td></td>
</tr>
</tbody>
</table>

**APPLICATION NOTES**

Apply at the specified dosage as a soil drench using micro-irrigation, drip irrigation, overhead irrigation, or hand-held or motorized calibrated irrigation equipment. Use sufficient volume to wet most of the potting medium without loss of liquid from the bottom of the container. Follow application with moderate irrigation. Irrigate carefully during the next 10 days in order to avoid loss of active ingredient due to leaching. Choose lower rate for light infestation and the higher rate for heavy infestation.

* May cause some leaf yellowing and/or mottling.
## DIRECTIONS FOR USE FOR APPLICATIONS TO VEGETABLE TRANSPLANTS AND FRUIT TRANSPLANTS

### FOLIAR APPLICATION RATES FOR GREENHOUSE VEGETABLE TRANSPLANTS AND FRUIT TRANSPLANTS

<table>
<thead>
<tr>
<th>PLANT</th>
<th>PEST</th>
<th>APPLICATION RATE FL OZ PRODUCT/10,000 Plants</th>
<th>PRE-HARVEST INTERVAL PHI (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brassica Leafy Vegetables (Crop Group 5)</td>
<td>Aphids Leaffoppers Whiteflies</td>
<td>1</td>
<td>Kava Leaves - 7</td>
</tr>
<tr>
<td>Cucurbit Vegetables* (Crop Group 9) (except muskmelon*)</td>
<td>Aphids Leaffoppers Whiteflies Squash bug</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CYSDV – Cucurbit yellow stunting disorder virus (suppression)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Fruiting Vegetables (Crop Groups 8-10)</td>
<td>Aphids Colorado potato beetle Leaffoppers Psyllids Whiteflies</td>
<td>0.17</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Chilli thrips- Scirtothrips dorsalis (suppression)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TYLCV – Tomato yellow leaf curl virus (suppression)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leafy Vegetables (Crop Group 4)</td>
<td>Aphids Leaffoppers Whiteflies</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Legume Vegetables (Crop Group 6)</td>
<td>Aphids Leaffoppers</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Low Growing Berry (Crop Group 13-07G)</td>
<td>Aphids Blueberry maggot Blueberry thrips- Frankliniella vaccinii (feeding damage reduction) Whiteflies</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

(continued)
FOLIAR APPLICATION RATES FOR GREENHOUSE VEGETABLE TRANSPLANTS AND FRUIT TRANSPLANTS (continued)

<table>
<thead>
<tr>
<th>PLANT</th>
<th>PEST</th>
<th>APPLICATION RATE</th>
<th>PRE-HARVEST INTERVAL PHI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Root Vegetables (Crop Subgroup 1B)</td>
<td>Aphids Leathoppers Whiteflies</td>
<td>0.17</td>
<td></td>
</tr>
<tr>
<td>Small Fruit Vine Climbing (Crop Subgroup 13-07F)</td>
<td>Leathoppers Vine mealybug</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turnip Greens</td>
<td>Aphids Leathoppers Whiteflies</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

APPLICATION NOTES
Spray crop to wet not to drip. Thorough, uniform coverage of the crop is required for optimum control.
The application made in the greenhouse will only provide short-term protection (approximately 2 weeks).
Suggested volumes for foliar application are 50 – 100 gallons/Acre.

* May cause some leaf yellowing and/or mottling in cucumbers.

Restrictions
• Do not make more than 1 application of ALTUS per crop prior to transplanting, regardless of application method (0.0022 lbs flupyradifurone per 10,000 transplants).

1 Do not apply ALTUS as a foliar application to muskmelon (hybrids and/or cultivars of *Cucumis melo* including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon).

**Greenhouse Vegetable and Fruit Transplants or Seedling Applications (Tray Drench)**
Apply specified dosage to seedlings in trays in the greenhouse, targeting potting media (tray drench) at least 24 hours prior to transplanting, in one of the following methods:
• Uniform, broadcast high-volume foliar spray, followed immediately by sufficient overhead irrigation to wash ALTUS from foliage into potting media without loss of gravitational liquid from the bottom of the tray. Failure to wash ALTUS from foliage may result in reduced pest control.
• Injection into overhead irrigation system, using adequate volume to thoroughly saturate potting media without loss of gravitational solution from the bottom of the tray.
The application made in the greenhouse will only provide short-term protection (approximately 2 weeks).
### Application Method (Drench)

**DRENCH APPLICATION RATES FOR GREENHOUSE VEGETABLE TRANSPLANTS AND FRUIT TRANSPLANTS**

<table>
<thead>
<tr>
<th>PLANT</th>
<th>PEST</th>
<th>APPLICATION RATE FL OZ PRODUCT/10,000 Plants</th>
<th>PRE-HARVEST INTERVAL PHI (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brassica Leafy Vegetables (Crop Group 5 except Kava Leaves)</strong></td>
<td>Aphids, Leafhoppers, Whiteflies</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td><em><em>Cucurbit Vegetables</em> (Crop Group 9)</em>*</td>
<td>Aphids, Leafhoppers, Whiteflies</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td><strong>Fruiting Vegetables (Crop Groups 8-10)</strong></td>
<td>Aphids, Leafhoppers, Psyllids, Whiteflies</td>
<td>0.34</td>
<td>45</td>
</tr>
<tr>
<td><strong>Leafy Vegetables (Crop Group 4)</strong></td>
<td>Aphids, Leafhoppers, Whiteflies</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td><strong>Small Fruit Vine Climbing (Crop Subgroup 13-07F)</strong></td>
<td>Leafhoppers, Vine mealybug</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td><strong>Turnip Greens</strong></td>
<td>Aphids, Leafhoppers, Whiteflies</td>
<td></td>
<td>21</td>
</tr>
</tbody>
</table>

**APPLICATION NOTES**

The application made in the greenhouse will only provide short-term protection (approximately 2 weeks).
Minimum volume for drench applications is 200 gallons/Acre.

* May cause some leaf yellowing and/or mottling in cucumbers.

**Restrictions**

- Do not make more than 1 application of ALTUS per crop prior to transplanting, regardless of application method (0.0044 lbs flupyradifurone per 10,000 transplants).
- Do not exceed 28 fl oz of product per acre per year.
**VEGETABLE AND FRUIT TRANSPLANTS**

### BRASSICA (COLE) LEAFY VEGETABLES (Crop Group 5)
- Broccoli
- Broccoli raab (rapini)
- Brussels sprouts
- Cauliflower
- Cavolo Nero
- Chinese broccoli (gai lan)
- Chinese cabbage (bok choy)
- Chinese cabbage (napa)
- Chinese mustard cabbage (gai choy)
- Collards
- Kale
- Kava leaves
- Kohlrabi
- Mizuna
- Mustard greens
- Mustard spinach
- Rape greens

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

### FRUITING VEGETABLES (Crop Group 8-10)
- Cococa
- Eggplant (including African, pea, and scarlet eggplants)
- Garden huckleberry
- Goji berry
- Groundcherry
- Martynia
- Naranjilla
- Okra
- Pepino
- Pepper (including all peppers, i.e., bell, non-bell, hot, sweet, etc.)
- Roselle
- Sunberry
- Tomatillo
- Tomato (including bush, currant, tree)

### LEAFY VEGETABLES (Crop Group 4)
- Amaranth (leafy, Chinese spinach, and tampala)
- Arugula (Roquette)
- Cardoon
- Celery
- Celtuce
- Chervil
- Chinese celery
- Chrysanthemum (edible-leaved and garland)
- Cilantro (fresh leaves)
- Corn salad
- Cress (garden)
- Cress (upland, yellow rocket, and winter cress)
- Dandelion
- Dock (sorrel)
- Endive
- Florence fennel
- Lettuce (head and leaf)
- Orach
- Parsley
- Purslane (garden and winter)
- Radicchio (red chicory)
- Rhubarb
- Spinach (including New Zealand and Malabar and Indian vine spinach)
- Swiss chard
- Taro leaves

### LOW GROWING BERRY (Crop Subgroup 13-07G except Cranberry)
- Bearberry
- Bilberry
- Blueberry (lowbush)
- Cloudberry
- Lingonberry
- Muntries
- Partridgeberry
- Strawberry
- Cultivars, varieties, and/or hybrids of these commodities

### ROOT VEGETABLES (except Sugarbeet) (Crop Subgroup 1B)
- Beet (garden)
- Burdock (edible)
- Carrot
- Celeriac (celery root)
- Chervil (turnip-rooted)
- Chicory
- Ginseng
- Horseradish
- Kava
- Parsley (turnip-rooted)
- Parsnip
- Radish
- Oriental radish
- Rutabaga
- Salsify (black)
- Salsify (oyster plant)
- Salsify (Spanish)
- Skirret
- Turnip

### SMALL FRUIT VINE CLIMBING (except Fuzzy kiwifruit) (Crop Subgroup 13-07F)
- Amur River grape
- Gooseberry (Ribes spp.)
- Grape
- Kiwifruit (barrel only)
- Maypop
- Schisandra berry
- Cultivars, varieties, and/or hybrids of these commodities

### TURNIP GREENS

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STORAGE AND DISPOSAL

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

PESTICIDE STORAGE
Store in original container and keep tightly closed when not in use. Store in a cool dry place. Avoid cross-contamination with other pesticides.

PESTICIDE DISPOSAL
Pesticides wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency or Hazardous Waste representative at the nearest EPA regional office for guidance in proper disposal methods.

CONTAINER HANDLING
Non refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

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Produced for:
Bayer Environmental Science
A Division of Bayer CropScience LP
5000 CentreGreen Way, Suite 400
Cary, NC 27513

Bayer
Active ingredient: Flupyradifurone* ......... 17.09%
Other ingredients: .................................. 82.91%
Total: .............................................. 100.0%

Contains 1.67 pounds Flupyradifurone per gallon  *CAS Number 951659-40-8
EPA Reg. No. 432-1575

Keep out of reach of children

Caution

First aid

If swallowed:
• Call a poison control center or doctor immediately for treatment advice.
• Never give anything by mouth to an unconscious person.
• 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.

In case of emergency call toll free the Bayer CropScience Emergency Response Telephone No. 1-800-334-7577.
Have a product container or label with you when calling a poison control center or doctor, or going for treatment.

NOTE TO PHYSICIAN: No specific antidote is available. Treat the patient symptomatically.

For insect control in landscape and production ornamental plants, greenhouse vegetables and transplants, fruits, and nut trees. Not for use in residential greenhouses.

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