TOBACCO (FOLIAR APPLICATION) - ARMYWORM, CHINCH BUG, ETC.

General Information

Instructions
Rate of application is variable according to pest. Use lower specified rates under light to moderate infestations; higher listed rates under heavy insect pressure. Arid climates generally require the higher listed rates.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

Restrictions: New York State this product may not be applied within 100 feet (using ground equipment) or 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

Adjuvants
The use of a spray adjuvant that meets or exceeds CPDA Adjuvant Certification is recommended for optimum performance. Refer to the individual crop specifications on this label for specific adjuvant type and use rates.
ROTATIONAL CROPS

Plant back restrictions are determined by the crop. Crops that have tolerances for both bifenthrin and imidacloprid may be rotated at any time. Crops with tolerances for bifenthrin and not imidacloprid can be rotated 12 months following the final application of Brigadier Insecticide except as listed below. Crops that have tolerances for imidacloprid and not bifenthrin may be rotated 30 days following the final application of Brigadier Insecticide. Below is a list of plant back restrictions:

Immediate plant back: corn (all), tobacco, tomatoes, eggplant, peppers, bell and non-bell, okra, caneberrries, citrus, artichoke, lettuce (head), grapes, spinach, pears, hops, legume vegetables (edible podded), root tuberous and corm vegetables (except sugar beet), cilantro and coriander, soybeans and strawberries. 30 Day plant back: Cereals (Barley, Buckwheat, Millet – pearl and proso, oats, popcorn, rice, rye, sorghum, teosinte, triticale, wheat, and wild rice), cucurbits and safflower 10 Month plant back: Onion and bulb vegetables 12 Month plant back: All other crops

MAXIMUM ALLOWABLE USE

Refer to the individual crop sections for maximum allowable Brigadier Insecticide usage per acre per year or per season. The maximum allowable use must include all registered use patterns including at-plant, soil applied and/or foliar applications for the 12 months period. The 12 month period is to begin upon the initial application to the acre. Do not apply more than 0.5 lbs AI of imidacloprid per acre, per year, regardless of formulation or method of application, unless specified within a crop specific applications section for a given crop.

Tank-Mixture

Brigadier Insecticide may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Test for compatibility of products before mixing.

BUFFER ZONES
Vegetative Buffer Zones
Construct and maintain a minimum 10-foot-wide vegetative filter strip of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; permanent streams; marshes or natural ponds; estuaries; and commercial fish farm ponds).


Buffer Zone for Ground Application (groundboom, overhead chemigation, or airblast) – Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

Buffer Zone for Non-ULV Aerial Application – Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

Buffer Zones in New York State: In New York State this product may not be applied within 100 feet (using ground equipment) or 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

Spray Drift Requirements

Wind Direction and Speed
Only apply this product if the wind direction favors on-target deposition. Do not apply when the wind velocity exceeds 15 mph.

Temperature Inversion
Do not make aerial or ground applications into temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

Droplet Size
Use only Medium or coarser spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

Additional Requirements for Ground Applications
Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.

For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

Additional Requirements for Aerial Applications
The spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of the wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining droplet size.

Spray must be released at the lowest height consistent with pest control and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.

When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

Application Instructions

Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower listed rates under light to moderate infestations; higher listed rates under heavy insect pressure and for mite control. Arid climates generally require using higher listed rates. All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

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

Do not apply by ground equipment within 25 feet, or by air within 150 feet of lakes; reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds. Increase the buffer zone to 450 feet when ultra low volume (ULV) application is made in cotton. For aerial applications, the spray boom should be mounted on the aircraft so as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of wing span or rotor diameter.

Use the largest droplet size consistent with good pest control. Formation of very small droplets may 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. Spray should be released at the lowest height consistent with pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided.

Make aerial or ground applications when the wind velocity favors on target product deposition (approximately 3 to 10 mph). Do not apply when wind velocity exceeds 15 mph. Avoid applications when wind gusts approach 15 mph.

Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Low humidity and high temperatures increase the evaporation rate of spray droplets and therefore the likelihood of increased spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/or high temperature.

Do not make aerial or ground applications during temperature inversions. Temperature inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

CHEMIGATION USE DIRECTIONS
Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems. Do not apply this product through any other type of irrigation system. Do not
connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system. Do not connect an irrigation system (including greenhouse system) used for pesticide application to a public water system.

For Low Energy Pressure Application (LEPA) irrigation a minimum of 0.75 inch of water per acre is recommended. Where non-emulsified oils are used as the diluent, 1 to 2 pints per acre is recommended.

Results from utilizing chemigation have been variable and depend upon the set up and calibration of equipment. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

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. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump).
effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment. Brigadier Insecticide should be applied continuously for the duration of the water application. Brigadier Insecticide should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable diluent is used. A diluent test should be conducted to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

Limitations, Restrictions, and Exceptions

TOBACCO (AT-TRANSPLANT/PRE-TRANSPLANT APPLICATION)

PHI: Do not apply after layby

Application Interval: Do not make applications less than 7 days apart.

Maximum Amount of Brigadier Insecticide per Application: Do not apply more than 6.4 fl oz/A (0.05 lb ai/A Imidacloprid and 0.05 lb ai/a bifenthrin) per foliar application.

Maximum Amount of Brigadier Insecticide per Year: 12.8 fl oz/A (0.1 lb ai/A Imidacloprid, 0.1 lb ai/A Bifenthrin ) for foliar applications.

Maximum Amount of imidacloprid per Season: 0.28 lbs ai/A as an at-transplant/pre-transplant application. 0.28 lbs ai/A as a foliar application.

Maximum Amount of bifenthrin per Season: 0.30 lb ai/a as an at-transplant/pre-transplant application. 0.5 lbs ai/A total.

Remarks:

Foliar Application: Apply a minimum of 10 gallons per acre with ground equipment.

Armyworm spp.: Including all armyworm pests except Beet armyworm.

Tobacco budworm: Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the the resistance management statement in the
DIRECTION FOR USE section of the label.

Method
Broadcast/Foliar Ground

Pre-Harvest Interval
14 days

Rates
field_rates 0
field_rates 1

Restricted Entry Interval
12 hours

Timings
N. A.