POTATO - PESTS SUPPRESSED

General Information

PRODUCT INFORMATION

MOVENTO HL:

- Is a suspension concentrate formulation and is active primarily by ingestion against immature target pest life stages. In addition, fertility of adult female target pests, such as aphids and whiteflies, may be reduced.
- Can be applied by air, ground equipment or through chemigation as a preventative treatment or timed to coincide with an early threshold level in developing insect populations.
- Must be tank mixed with a spray adjuvant / additive having spreading and penetrating properties to maximize leaf uptake and systemicity of the active ingredient within treated plants; please contact your local Bayer CropScience representative or PCA for specific recommendations by crop.
- Following application to plant foliage, MOVENTO HL is fully systemic, moving through phloem and xylem to new shoot, leaf and root tissues; systemicity and efficacy may be hindered during periods of cold temperatures, under drought conditions, or when plants are not actively growing.

APPLICATION INSTRUCTIONS

Foliar spray applications must be made using properly calibrated ground sprayers, fixed- or rotary-winged aircraft or through properly designed, sprinkler-type, chemigation equipment (See Chemigation Application section). Sufficient spray volume, based on the size and density of the treated crop, must be utilized that allows for good coverage of both young and old foliage without runoff or collection of spray solution on leaf margins or other plant tissues. Good coverage will help ensure maximum uptake by leaf surfaces and optimum systemicity within the plant.

- Ground applications must be made in a minimum of 15 gallons of water per acre on potato and vegetable crops; 10 gallons of water per acre on field crops.
- Aerial applications must be made in a minimum of 5 gallons of water per acre in field, vegetable, and potato crops. The higher dosage of MOVENTO HL within the
crop/pest-specific section may be necessary for optimum control for aerial applications.

USE RESTRICTIONS

- Do not use in enclosed structures, such as greenhouses or planthouses.
- For annual crops where multiple plantings can occur within a calendar year, do not apply more than 15 fl oz/A, which is 0.47 lb spirotetramat/A within a calendar year unless specified otherwise within a crop-specific section for a given crop.
- The tank mixture of MOVENTO HL with an adjuvant / additive having sticking properties or crop protection product formulations containing built-in stickers have been shown to interfere with leaf uptake and should be avoided.
- Do not apply when winds are greater than 15 mph and avoid gusty and windless conditions.

INSECT RESISTANCE MANAGEMENT RECOMMENDATIONS

MOVENTO HL contains an active ingredient with a mode of action classified as a Group 23 Insecticide, i.e., a lipid biosynthesis inhibitor (LBI). To delay insecticide resistance:

- Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area.
- Bayer CropScience strongly encourages that MOVENTO HL, applied alone or in tank mix combination with another Group 23 product, be applied in a block rotation or windowed approach with products from other chemical classes having a different mode of action before using additional applications of Group 23 insecticides against the same target pest. Using a block rotation or windowed approach, along with other IPM practices, is considered an effective use strategy for preventing or delaying an insect pest’s ability to develop resistance to a given class of chemistry.

Contact your local extension specialist, certified crop advisor, and/or Bayer CropScience representative for additional resistance management or IPM recommendations. Also, for more information on Insect Resistance Management (IRM), visit the Insecticide Resistance Action Committee (IRAC) on the web at [http://irac-online.org](http://irac-online.org).
CHEMIGATION - VEGETABLE AND POTATO CROPS ONLY

Types of irrigation systems

Apply this product only through:
- Sprinkler type irrigation systems only.
- These types include: center pivot, lateral move, side roll, or overhead solid set irrigation systems.
- Do not apply MOVENTO HL through any other type of irrigation system.
- Do not apply when wind speed favors drift beyond the area intended for treatment.

Uniform water distribution and system calibration

The irrigation system must provide uniform distribution of treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from nonuniform 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, contact your Cooperative Extension Service agent, 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

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/engine stops or in cases where there is no water pump, when
water pressure decreases to the point where pesticide distribution is adversely affected. The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Using water from public water systems

Do not connect an irrigation system (including greenhouse system) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back-flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward the injection 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 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.

Injection for chemigation
Inject the specified dosage of MOVENTO HL into the irrigation main water stream: (1) through a constant flow, metering device; (2) into the center of the main line flow via a pitot 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 nozzles 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

Injection should be during the last 30 to 60 minutes of regular irrigation period or as a separate 30 to 60 minute application not associated with a regular irrigation.

Chemigation Application Instructions

Chemigation applications must be made as concentrated as possible. For best results apply at 100% input/travel speed, for center pivots or 0.1 inch (2,716 gallons) up to 0.15 inch (4,073 gallons) of water/A, for other systems. The higher dosage of MOVENTO HL within the crop-specific/pest section may be necessary for optimum control for chemigation applications.

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 equipment supplier for the cleaning procedure for your injection
SPRAY DRIFT MANAGEMENT

Do not apply when wind speed favors drift beyond the area intended for treatment. 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. Avoiding spray drift is the responsibility of the applicator.

Droplet Size

An important factor influencing drift is droplet size. Select nozzles and pressure that deliver medium spray droplets as indicated in nozzle manufacturer’s catalogs and in accordance with ASAE Standard S-572. Nozzles that deliver coarse spray droplets may be used to reduce spray drift provided spray volume per acre (GPA) is increased to maintain crop coverage. For aerial application, spray should be released at the lowest possible height consistent with good pest control and flight safety. Applications more than 10 feet above the crop canopy should be avoided. Low humidity and high temperature increase the evaporation rate of spray droplets and therefore the likelihood of spray drift to aquatic areas. Avoid spraying during conditions of low humidity and/ or high temperature.

Wind Speed

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

Temperature Inversions

Do not make aerial or ground applications during temperature inversions. Drift potential is high during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights
with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog. However, if fog is not present, the movement of smoke from a ground source can also identify inversions. 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.

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.

ROTATIONAL CROPS

- Treated areas may be replanted with any crop specified on this label, or any crop for which a tolerance exists for the active ingredient, as soon as practical following the last application.
- Do not plant or replant any crop not listed on this label within 30 days after the last application except watercress, which has a 260-day plant-back interval (PBI).

CROP USE DIRECTIONS

Apply specified dosage of MOVENTO HL early in the infestation as the population begins to develop or at early threshold for the target insect pest. Apply higher dosages specified within the crop specific sections when applied as a preventive application, for moderate to heavy insect pressure, or where longer residual control is desired. Degree of efficacy against labeled pests will be determined, in part, by the stage of pest development at application and infestation level of those pests.
Apply in adequate water for uniform coverage. For field crops, apply in a minimum of 10 GPA by ground and 5 GPA by aerial application. For vegetable and potato crops, apply in a minimum of 15 GPA by ground and 5 GPA by aerial application. MOVENTO HL may also be applied through overhead irrigation systems as designated in the CHEMIGATION section of this label under Chemigation Application Instructions.

MOVENTO HL must be tank mixed with a spray adjuvant / additive having spreading and penetrating properties to maximize leaf uptake and systemicity of the active ingredient within treated plants; please contact your local Bayer CropScience representative or PCA for specific recommendations by crop. The tank mixture of MOVENTO HL with an adjuvant / additive having sticking properties or crop protection product formulations containing built-in stickers have been shown to interfere with leaf uptake and should be avoided. Sufficient leaf tissue must be present for uptake and translocation of this product.

Limitations, Restrictions, and Exceptions

POTATO

Foliar Application Restrictions:

- Minimum interval between applications: 7 days
- Maximum MOVENTO HL allowed per crop season: 5 fl oz/A
- Maximum spirotetramat per crop season: 0.16 lb ai/A

Method
- Broadcast/Foliar Air
- Broadcast/Foliar Ground

Pre-Harvest Interval

7 days

Restricted Entry Interval

24 hours

Timings

Early in the infestation as the population begins to develop or at early threshold for the target insect pest.