

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

July 17, 2020

Kristen Shears Regulatory Specialist Corteva AgriScience™ 9330 Zionsville Rd. Indianapolis, IN 46268

Subject: Notification per PRN 98-10 – Adding Alternate Brand Name "Vydate L" and

Optional Referral Text and Update Trademark and Company Information

Product Name: Vydate L Insecticide/Nematicide

EPA Registration Number: 352-372 Application Date: July 23, 2019 Decision Number: 554835

Dear Ms. Shears:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you have any questions, you may contact please contact David Drawbaugh at 703-731-8818 or by email at drawbaugh.david@epa.gov.

Sincerely,

Michael Walsh, Product Manager 11
Invertebrate & Vertebrate Branch 2
Registration Division

**Registration Division** 

Office of Pesticide Programs

Der Mainlet

# RESTRICTED USE PESTICIDE

Due to acute toxicity and toxicity to birds and mammals.

For retail sale to and use only by certified applicators or persons under their direct supervision and only for those uses covered by the certified applicator's certification.

OXAMYL GROUP 1A INSECTICIDE

# DuPont™ Vydate® L

## INSECTICIDE/NEMATICIDE

[Alternate Brand Name: Vydate® L]

Water Soluble Liquid

#### NOTIFICATION

352-372

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

07/17/2020

#### 1 GALLON CONTAINS 2 LBS. ACTIVE INGREDIENT

Active ingredient	By weight
Oxamyl	
[methyl N'N'-dimethyl-N-[(methylcarbamoyl)oxy]-1-thiooxamimidate]	24.0%
Other Ingredients	76.0%
TOTAL	100%
Contains Methanol	
EPA Reg. No. 352-372 EPA	A Est. No.:

{Note to Reviewer: The referral statement below is optional. Please also note that this Note to Reviewer appearing within braces will not appear on the final printed label.}

See back and side panels for additional precautionary statements.

Nonretilia	abie Containei
Net:	
OR	
Refillable	<b>Container</b>
Net·	

### KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO



**POISON** 

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

#### **FIRST AID**

Contains an N-methyl carbamate that inhibits cholinesterase.

**IF SWALLOWED:** Call a poison control center or doctor immediately for treatment advice. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person.

**IF INHALED:** Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further 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 eye. Call a poison control center or doctor for treatment advice.

**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.

# ATROPINE IS AN ANTIDOTE – SEEK MEDICAL ATTENTION AT ONCE IN ALL CASES OF SUSPECTED POISONING.

If symptoms appear (see SYMPTOMS), get medical attention.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-441-3637 for emergency medical treatment information.

**SYMPTOMS:** Oxamyl poisoning produces effects associated with anticholinesterase activity which may include weakness, blurred vision, headache, nausea, abdominal cramps, discomfort in the chest, constriction of pupils, sweating, slow pulse, muscle tremors.

#### **NOTE TO PHYSICIAN**

**TREATMENT:** Atropine sulfate should be used for treatment. Administer repeated doses, 1.2 to 2.0 mg intravenously every 10 to 30 minutes until full atropinization is achieved. Maintain atropinization until the patient recovers. Artificial respiration or oxygen may be necessary. Allow no further exposure to any cholinesterase inhibitor until recovery is assured.

Do not use 2-PAM for exposure to Vydate L alone. However, for exposure to combinations of Vydate L and organophosphorus insecticides, 2-PAM may be used as required to supplement the atropine sulfate treatment. Do not use morphine.

For medical emergencies involving this product, call toll-free 1-800-441-3637.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS DANGER – POISON

Fatal if swallowed. May be fatal if inhaled. Do not breathe spray mist. Causes moderate eye irritation. Avoid contact with eyes or clothing. Contains methanol which may cause blindness.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

#### Mixers, loaders, applicators and other handlers must wear:

- Coveralls over long-sleeved shirt and long pants.
- Chemical-resistant gloves, made of barrier laminate or butyl rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils or viton ≥ 14 mils or nitrile rubber ≥ 14 mils.
- · Chemical-resistant footwear plus socks.
- Protective eyewear.
- Chemical-resistant headgear for overhead exposure.
- Chemical-resistant apron when cleaning equipment, mixing or loading.
- A NIOSH approved respirator with an organic vapor (OV) cartridge with a combination R or P filter, with NIOSH approval number prefix TC-84A; or a NIOSH approved powered air purifying respirator with organic vapor (OV) cartridge and combination HE filter with NIOSH approval number prefix TC-23C; or a NIOSH approved gas mask with an organic vapor canister with NIOSH approval number prefix TC-14G.

Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. 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 CONTROL STATEMENTS**

Human flaggers must be in enclosed cabs.

Pilots must use an enclosed cockpit in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(6)]. Pilots must not assist in the mixing and loading operations.

Mixers and loaders supporting use on cotton in California and Arizona must use a closed system that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4)]. The system must be designed by the manufacturer to remove a liquid pesticide from its container and transfer it through connecting hoses, pipes, and/or couplings that are sufficiently tight to prevent dermal or inhalation exposure of any person to the pesticide concentrate, use dilution, or rinse solution, and must be provided and have immediately available for use in an emergency, such as a broken package, spill, or equipment breakdown: coveralls, chemical-resistant footwear, and the type of respirator required for handlers on this labeling. In addition, handlers:

- may wear long-sleeved shirt and long pants, socks and shoes, chemical resistant gloves and a chemical resistant apron, instead of the PPE required for mixers and loaders on this label,
- must wear protective eyewear if the system operates under pressure.

When handlers use closed systems or enclosed cabs 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/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove personal protective equipment 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 pesticide is toxic to aquatic organisms (fish and invertebrates) and extremely toxic to birds and mammals. Cover or disc spill areas. Birds and mammals in treated areas may be killed. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when cleaning equipment or disposing of equipment waste waters.

This product can contaminate surface water through ground spray applications. Under some conditions, it may also have a high potential for runoff into surface water after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow to drift to blooming crops or weeds if bees are foraging the treatment area.

**GROUND WATER ADVISORY:** Residues of DuPont™ Vydate L can seep or leach through soil and can contaminate ground water which may be used for drinking. Users are advised not to apply Vydate L where the water table is close to the surface and where soils are very permeable, i.e., well-drained soils such as loamy sands. Local agricultural agencies can provide information on the soil type in your area and the location of the ground water.

#### PHYSICAL AND CHEMICAL HAZARDS

**Flammable.** Keep away from heat, sparks, and open flame. Keep container closed. Use with adequate ventilation.

**Note to Reviewer:** The referral statement below is optional. Please also note that this Note to Reviewer appearing in braces will not appear on the final printed label.}

Refer to accompanying labeling for additional precautions, complete Directions for Use, and Storage and Disposal.

#### **DIRECTIONS FOR USE**

#### **Restricted Use Pesticide**

It is a violation of federal law to use this product in a manner inconsistent with its labeling.

DuPont™ Vydate ® L insecticide/nematicide must be used in accordance with the Directions for Use on this label, in separately issued labeling or exemptions under FIFRA (Supplemental labels, Special local Need registrations, FIFRA Section 18 exemptions), or as otherwise permitted by FIFRA. Always read the entire label, including the Limitation of Warranty and Liability.

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. Pilots must not assist in the mixing and loading operations.

#### 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 48 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:

- · Protective eyewear.
- · Coveralls.
- Chemical-resistant gloves made of barrier laminate or butyl rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils or viton ≥ 14 mils or nitrile rubber ≥ 14 mils.
- · Socks and shoes.

#### PRODUCT INFORMATION

Vydate L is a water-soluble liquid that can be used to control many important insects, mites, and nematodes. Vydate L is diluted with water for application.

Use Vydate L for nematode suppression where nematode populations are low to moderate. Make applications via foliar spray, drip irrigation, shank or other soil injection system, soil surface band followed immediately by overhead irrigation, or via sprinkler chemigation. For best results on nematodes use a registered soil fumigant or contact nematicide prior to or at planting for most crops. Vydate L application timing and treatment schedules depend on the crop and life cycle of the nematode. See the specific crop directions for use of this label for more information.

Use only in commercial and farm plantings. Not for use in home plantings. Not for use during any period after a commercial crop site is opened for public entry as a "U-Pick" or "Pick Your Own" or similar operation; in no case shall preharvest applications be made after first public entry. The restricted entry interval stated elsewhere on this label must be followed.

Do not formulate this product into other end-use products.

Do not use in Suffolk and Nassau Counties, Long Island, New York.

In the Directions for Use section of this label for NON-BEARING FRUIT, CARROTS, CELERY, CUCUMBER, CANTALOUPE, HONEYDEW MELON, WATERMELON, SQUASH, PUMPKIN, EGGPLANT, PEPPERS, AND TOMATOES, the Rio Grande Valley is defined to include the following counties: Brewster, Crane, Crockett, Culberson, El Paso, Hudspeth, Jeff Davis, Kinney, Loving, Maverick, Pecos, Presidio, Reeves, Starr, Sutton, Terrell, Upton, Val Verde, Ward, Webb, Winkler, and Zapata.

Seed piece treatments of tuberous crops are prohibited.

All applications to the soil must be incorporated immediately after application to a depth of at least 2 inches by mechanical means or by water. Place Vydate L in the root zone of the plant for best results. If irrigation is used to water in the application, use sufficient water to move the applied Vydate L at least 2 inches deep into the soil. However, do not apply irrigation water such that the water moves off the field.

#### INTEGRATED PEST MANAGEMENT

DuPont supports the use of Integrated Pest Management (IPM) programs to control pests. Use this product as part of an IPM program which can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, rotation of insecticides with different modes-of-action, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants, or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop or site systems in your area.

#### SCOUTING

Monitor insect populations to determine whether or not there is a need for an application of DuPont™ Vydate L based on locally determined pest management guidelines. If permitted by the label, more than one treatment of Vydate L may be required to control a population of pests.

#### **INSECT RESISTANCE MANAGEMENT**

For resistance management, Vydate L is a group 1A insecticide. Repeated exclusive use of Vydate L or other group 1A insecticides may lead to the buildup of resistant strains of insects in some crops. Not all members of this group have been shown to be cross-resistant. Different resistance mechanisms that are not linked to target site of action, such as enhanced metabolism, are common for this group of chemicals. Alternation of compounds from different sub-groups within this group is an acceptable part of an integrated pest management program.

Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, use this product as part of resistant management strategies established for the use area. These strategies include incorporation of cultural and biological control practices, alternation of mode-of-action classes of insecticides on succeeding generations and targeting the most susceptible life stage. Consult your local or state agricultural authorities for details.

Unless directed otherwise in the specific crop/pest sections of this label, the best practices are to follow these instructions to delay the development of insecticide resistance:

- Avoid using the same mode of action (same IRAC number and subgroup) on consecutive generations of insect pests.
- Rotate the use of Vydate L or other group 1A insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Avoid using less than the labeled rates of Vydate L when applied alone or in tank mixtures.
- Target the most susceptible insect life stages whenever possible.
- Monitor insect populations for product effectiveness. If resistance to Vydate L develops in your area,
   Vydate L, or other products with a similar mode of action, may not provide adequate control.

- 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.
- If poor performance cannot be attributed to improper application or extreme weather conditions, a
  resistant strain of insect may be present. If you experience difficulty with control and resistance is a
  reasonable cause, immediately consult your local DuPont Crop Protection company representative or
  agricultural advisor for the best alternate method of control.

For additional information on insect resistance monitoring, visit the Insecticide Resistance Action Committee (IRAC) on the web at <a href="http://www.irac-online.org">http://www.irac-online.org</a>.

#### **CROP ROTATION**

Do not plant crops other than those with registered Vydate L or Vydate C-LV uses within 4 months after the last application. Cover crops for soil building or erosion control may be planted anytime, but do not graze or harvest for food or feed.

#### SPRAY PREPARATION

Spray equipment must be well maintained, clean, and free of previous pesticide deposits before applying Vydate L.

Vydate L is a water soluble liquid. Fill spray tank 1/4 to 1/2 full of water. Add Vydate L directly to the tank. Mix thoroughly while adding remaining water. Once in solution, no further agitation is required. Do not store the spray mix in a spray tank overnight. Observe the most restrictive of the labeling limitations and precautions of all products used in mixtures.

Buffer spray solution to a pH of 5 to 7 for best results.

#### **Tank Mixing and Compatibility**

Since formulations may be changed and new ones introduced, it is a best practice that users premix a small quantity of a desired tank mix and observe for possible physical incompatibility (settling out, flocculation, crystallization, etc.). This product can be mixed with pesticide products labeled for use on crops on this label in accordance with the most restrictive of label limitations and precautions. Do not exceed labeled dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing.

Spray volumes of less than 3 gallons of water and tank mixtures of more than two products can increase the chances of incompatible spray mixtures. A jar test (as described below) should be conducted when label guidance is not given or prior experience with a specific tank mixture is unknown. The jar test should follow the proper sequence of addition at the spray water volume planned to assure that the tank mix is compatible. Constant agitation may be needed during mixing and spraying of mixtures. Vydate L is compatible with most commonly used plant protectants with the exception of Bordeaux mixtures, lime sulfur and spray oils. Do not use Vydate L in highly alkaline mixtures. For best results, buffer spray solutions to a pH between 5 and 7. Use mildly alkaline mixtures immediately after mixing to prevent loss of efficacy.

Steps to conduct a jar test to determine physical tank mix compatibility of Vydate L with other products:

- Add clean water to jar proportional to the planned water volume that will be used in the spray tank (a jar size of 8-16 oz is acceptable).
- Using the most restrictive PPE of the products to be tested, mix proper proportions of DuPont Vydate L
  and desired tank mix partner(s) as will be present in the spray tank, add one product at a time following
  the sequence of addition according to formulation type provided in this label.
- Seal and shake mixture after each product is added.
- Allow to stand for 1 hour.
- View jar to determine if settling, flocculation, crystallization or any other undesirable changes have happened.
- If none of the above is observed or the solution can be easily remixed after shaking, the mixture is compatible with Vydate L.
- If the tank mix is not compatible, a higher water volume, reduced rate of the tank mix partner(s), reduced number of tank mix partners or a compatibility agent may be needed.

#### **Tank Mixtures and Crop Safety**

Vydate L is a water soluble liquid. The crop safety of Vydate L alone or in a tank mix with many common insecticides, fungicides, nutritionals, and adjuvants has been found to be acceptable. Some materials including oils, surfactants, adjuvants, nutritionals and pesticide formulations when applied individually, sequentially or in tank mixtures may solubilize the plant cuticle, facilitate penetration into plant tissue, and increase the potential for crop injury.

Applying Vydate L with any product that produces adverse crop response in a tank mixture may also cause adverse crop response when applied in a short time sequence (i.e. seven days apart or less between applications). Such uses should be tested as described below before broad application is made.

Crop varieties can differ in their responsiveness to tank mixtures, and environmental conditions can have an influence on product performance and crop response. It is not possible to test Vydate L alone or with all possible tank mix combinations and sequences on all varieties under all environmental conditions. When considering the use of a tank mixture on a labeled crop without prior experience, or which is not specifically described on Vydate L product labeling or in other DuPont product use instructions, or when applying any products in close sequence with Vydate L ,it is important to check crop safety first. To test for crop safety prepare a small volume of the intended tank mixture or sequence, apply it to an area of the target crop as directed by both this and the tank mix partner product labels, and observe the treated crop to ensure that a phytotoxic response does not occur.

Use of Vydate L in any tank mixture or sequence of applications that is not specifically described on Vydate L product labeling or other DuPont product use instructions could potentially result in crop injury. Follow the precautions on this label and on the label for any other product to be used in tank mixtures or in sequential applications before making such applications to your crops. It is the pesticide user's responsibility to ensure that all products listed in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Follow the most restrictive label. To the extent allowed by applicable law, DuPont will not be responsible for any crop injury arising from the use of a tank mixture or sequence of applications that is not specifically described on the Vydate L product labeling or in other DuPont product use instructions.

**Tank Mixing Sequence** – Add different formulation types in the sequence indicated below.\* Allow time for complete mixing and dispersion after addition of each product.

- 1. Products in water soluble bags (WSB)
- 2. Water soluble granules (SG)
- 3. Water dispersible granules (WG, XP, DF)
- 4. Wettable powders (WP)
- 5. Water based suspension concentrates (SC)
- 6. Vydate L and other water soluble concentrates (SL)
- 7. Suspoemulsions (SE)
- 8. Oil based suspension concentrates (OD)
- 9 Emulsifiable concentrates (EC)
- 10. Adjuvants, surfactants and oils
- 11. Soluble fertilizers
- 12. Drift retardants.

#### APPLICATION

Apply at the labeled rates when insect populations reach locally determined thresholds. Consult the cooperative extension service, professional consultant, or other qualified authorities to determine appropriate threshold levels for treatment in your area.

Refer to crop specific directions for use in the crop tables for information on treatment intervals.

Use sufficient water to obtain thorough, uniform coverage. For aerial applications use a minimum of 2 gallons per acre of water for vegetables and row crops and 10 gallons per acre of water for fruit crops, except where otherwise noted in the crop specific directions for use. For ground foliar applications use a minimum of 5

<sup>\*</sup> Unless otherwise specified by manufacturer directions for use or by local experience.

gallons per acre of water and 10 gallons per acre of water for fruit crops, except as otherwise noted in the crop specific directions for use.

#### SPRAY TANK CLEANOUT

- Immediately following application, thoroughly clean all spray equipment to reduce the risk of forming hardened deposits which might become difficult to remove.
- Drain spray equipment. Thoroughly rinse sprayer and flush hoses, booms, and nozzles with clean water.
- Clean all other associated equipment. Take all necessary safety precautions when cleaning equipment. Do not clean near wells, water sources or desirable vegetation.
- Dispose of waste rinse water in accordance with local regulations.

#### SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions. AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR.

#### IMPORTANCE OF DROPLET SIZE

The most effective drift management strategy is to apply the largest droplets which are consistent with pest control objectives. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly or under unfavorable environmental conditions.

A droplet size classification system describes the range of droplet sizes produced by spray nozzles. The American Society of Agricultural and Biological Engineers (ASABE) provides a Standard that describes droplet size spectrum categories defined by a number of reference nozzles (fine, coarse, etc.). Droplet spectra resulting from the use of a specific nozzle may also be described in terms of volume mean diameter (VMD). Coarser droplet size spectra have larger VMDs and lower drift potential.

#### **CONTROLLING DROPLET SIZE – GROUND APPLICATION**

- Nozzle Type Select a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. The use of low-drift nozzles will reduce drift potential.
- Pressure The lowest spray pressures recommended for the nozzle produce the largest droplets. Higher
  pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are
  needed, using a higher-capacity nozzle instead of increasing pressure results in the coarsest droplet
  spectrum.
- Flow Rate/Orifice Size Using the highest flow rate nozzles (largest orifice) that are consistent with pest control objectives reduces the potential for spray drift. Nozzles with higher rated flows produce coarser droplet spectra.

#### CONTROLLING DROPLET SIZE - AIRCRAFT

- Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45 degrees.
- Nozzle Type Solid stream or other low drift nozzles produce the coarsest droplet spectra.
- Number of Nozzles Using the minimum number of nozzles with the highest flow rate that provide uniform coverage will produce a coarser droplet spectrum.
- Nozzle Orientation Orienting nozzles in a manner that minimizes the effects of air shear will produce the
  coarsest droplet spectra. For some nozzles such as solid stream, pointing the nozzles straight back
  parallel to the airstream will produce a coarser droplet spectrum than other orientations.
- Pressure Selecting the pressure that produces the coarsest droplet spectrum for a particular nozzle and airspeed reduces spray drift potential. For some nozzle types such as solid streams, lower pressures can produce finer droplet spectra and increase drift potential.

# **BOOM LENGTH (AIRCRAFT) AND APPLICATION HEIGHT**

• The distance of the outer most nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.

- Boom length (aircraft) Using shorter booms decreases drift potential. Boom lengths are expressed as a
  percentage of an aircraft's wingspan or a helicopter's rotor blade diameter. Shorter boom length and
  proper positioning can minimize drift caused by wingtip or rotor vortices.
- Application Height (aircraft) Applications made at the lowest height that are consistent with pest control
  objectives and the safe operation of the aircraft will reduce the potential for spray drift.
- Application Height (ground) Applications made at the lowest height consistent with pest control
  objectives, and that allow the applicator to keep the boom level with the application site and minimize
  bounce, will reduce the exposure of spray droplets to evaporation and wind, and reduce spray drift
  potential.
- Swath Adjustment When applications are made with a crosswind, the swath will be displaced
  downward. Therefore, on the up and downwind edges of the field, the applicator must 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.).

#### WIND

Drift potential is lowest when applications are made in light to gentle sustained winds (2-10 mph), which are blowing in a constant direction. Many factors, including droplet size and equipment type, also determine drift potential at any given wind speed. AVOID GUSTY OR CALM CONDITIONS (<2 mph).

Local terrain can also influence wind patterns. Every applicator is expected to be familiar with local wind patterns and how they affect spray drift.

#### **TEMPERATURE AND HUMIDITY**

Setting up equipment to produce larger droplets to compensate for droplet evaporation can reduce spray drift potential. Droplet evaporation is most severe when conditions are both hot and dry.

#### SURFACE TEMPERATURE INVERSIONS

Drift potential is high during a surface temperature inversion. Surface inversions restrict vertical air mixing, which may cause small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Surface 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. Mist or fog may indicate the presence of an inversion in humid areas. Inversions may also be identified by producing smoke and observing its behavior. Smoke that remains close to the ground or moves laterally in a concentrated cloud under low wind conditions indicates a surface inversion. Smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

#### SHIELDED SPRAYERS

Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are minimizing drift potential and not interfering with uniform deposition of the product.

#### AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, that it is configured properly, and that drift potential has been minimized.

Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Read the specific crop use and application equipment instructions to determine if an air assisted field crop sprayer can be used.

#### AIR ASSISTED (AIR BLAST) - TREE AND VINE SPRAYERS

Air assisted tree and vine sprayers carry droplets into the canopy of trees and vines via a radially or laterally directed air stream. These sprayers are not suitable for applying herbicides. In addition to the general drift management principles already described, the following specific practices will further reduce the potential for drift:

- · Adjust deflectors and aiming devices so that spray is only directed into the canopy.
- Block off upward pointed nozzles when there is no overhanging canopy.
- Use only enough air volume to penetrate the canopy and provide good coverage.
- Movement of spray that goes beyond the edge of the cultivated area may be minimized by practices such
  as spraying the outside row only from outside the planting.

#### SENSITIVE AREAS

Making applications when there is a sustained wind moving away from adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is an effective way to minimize the effects of spray drift.

#### **DRIFT CONTROL ADDITIVES**

Using product-compatible drift control additives can reduce drift potential. When a drift control additive is used, read and carefully observe cautionary statements and all other information on the additive's label. If using an additive that increases viscosity, ensure that the nozzles and other application equipment will function properly with a viscous spray solution. Preferred drift control additives have been certified by the Council of Producers & Distributors of Agrotechnology.

#### CHEMIGATION

Use the following types of irrigation equipment for chemigation applications: center pivot, lateral move, end tow, side (wheel) roll, traveler, solid set, mini (micro) sprinkler, hand move, drip (trickle), or strip tubing irrigation systems. To avoid exposure to birds, use drip irrigation where feasible. Do not apply this product through any other type of irrigation system.

Apply in sufficient water and of sufficient duration to apply the labeled rate evenly to the entire treated area.

Buffer the injection solution containing DuPont Vydate L to approximately pH 5 for best results.

Do not allow irrigation water to collect or run-off during chemigation.

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

Do not apply DuPont Vydate L at the same time that a drip/irrigation line clean out product is being used as performance may be reduced.

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.

Wear personal protective equipment as defined in the PPE section of the label for applicators and other handlers when making adjustments or repairs on the chemigation system when Vydate L is in the irrigation water.

When the application is finished, allow the entire irrigation and injector system to be thoroughly flushed clean before stopping the system.

Use a pesticide supply tank for the application of Vydate L in chemigation systems. Buffer highly alkaline water so that the pH of the spray solution is in the range of neutral to slightly acidic.

Do not connect any irrigation system (including greenhouse systems) used for pesticide applications to a public water system unless the pesticide label -prescribed safety devices 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 at least 60 days out of the year.

#### REQUIRED SYSTEM SAFETY DEVICES

- 1. 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.
- 2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- 3. 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.
- 4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 5. 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.
- 7. Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, backflow 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.

#### SPRINKLER CHEMIGATION

- 1. End guns must be turned off during the application if they irrigate non target areas.
- 2. It is recommended that nozzles in the immediate area of control panels, chemical supply tanks, and system safety devices be plugged to prevent contamination of these areas.
- 3. Do not apply when wind speed favors drift beyond the area intended for treatment.
- Do not apply when system connections or fittings leak or when nozzles do not provide uniform distribution.

#### DRIP (TRICKLE) CHEMIGATION

- 1. The system should provide uniform water flow and should have no leaks.
- 2. Irrigate crop in a manner to wet the root zone first, then introduce Vydate L for a period to distribute the material uniformly to the crop being irrigated. Discontinue use of Vydate L long enough to purge the system with fresh water and allow the Vydate L to remain in the root zone of the crop.

See crops on label for treatment rates and additional use information.

### POSTING OF AREAS TO BE TREATED

Posting of areas to be chemigated is required when: 1) any part of a treated area is within 300 feet of sensitive areas such as residential areas, labor camps, businesses, daycare centers, hospitals, in-patient clinics, nursing homes, or any public areas such as schools, parks, playgrounds, or other public facilities not including public roads, or 2) when the chemigated area is open to public such as golf courses or retail greenhouses.

Posting must conform to all the following requirements. Treated areas shall be posted with signs at all usual points of entry and along likely routes of approach from the listed sensitive areas. When there are no usual points of entry, signs must be posted in the corners of the treated areas and in any other location affording maximum visibility to sensitive areas. The printed side of the sign should face away from the treated area towards the sensitive area. The signs shall be printed in ENGLISH. Signs must be posted prior to application and must remain posted until foliage has dried and soil surface water has disappeared. Signs may remain in place indefinitely as long as they are composed of materials to prevent deterioration and maintain legibility for the duration of the posting period.

All words shall consist of letters at least 2 1/2 inches tall, and all letters and the symbol shall be a color which sharply contrasts with their immediate background. At the top of the sign shall be the words, "KEEP OUT" followed by an octagonal stop sign symbol at least 8 inches in diameter containing the word "STOP." Below the symbol shall be the words, "PESTICIDE IN IRRIGATION WATER."

Posting required for chemigation does not replace other posting and reentry requirements for farm worker safety.

### **SPECIFIC USES - FRUITS**

Where not otherwise specified, apply DuPont Vydate L in sufficient water to obtain uniform coverage.

# APPLES - ALL STATES

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information	
Apples	Rosy Apple Aphid	4 to 8 pt/A	Apply by ground at pink (before bloom-no open petals) when aphids are present in significant numbers.	14	<ul> <li>Do not apply at bloom or within 30 days after bloom, as fruit thinning may occur.</li> <li>Do not apply more than 8 pt (1 gal) Vydate L per acre per</li> </ul>	
	Apple Aphid	4 to 8 pt/A	Apply by ground when 50% of terminals are infested		season.  Minimum retreatment	
	Apple Aphid  4 to 8 pt/A  Apply by ground when 50% of terminals are infested.  Spotted Tentiform Leafminers  2 to 4 pt/A  Make all applications using ground equipment, except in the State of Washington where one aerial application may be made. To control 1st Brood Leaf Miner: apply at 1/2" green stage to early pink stage. Do not apply after the blossom clusters have separated. To control 2nd Brood Leaf Miner: apply when an average of two or more larvae per leaf are present in the sap-feeding stage. For best results, apply before the larvae enter the tissue-feeding stage. If necessary, repeat application.  European Red Mite and Two-Spotted Spider Mite  2 to 4 pt/A  Apply by ground when mite populations reach 2 to 4 mites per leaf. Repeat applications at 7 to 14 day intervals.	2 to 4 pt/A	Make all applications using ground equipment, except in the State of Washington where one aerial application may be made. To control 1st Brood Leaf Miner: apply at 1/2" green stage to early pink stage. Do not apply after the blossom clusters have separated. To control 2nd Brood Leaf Miner: apply when an average of two or more larvae per leaf are present in the sap-feeding stage. For best results, apply before the larvae enter the tissue-feeding stage. If necessary, repeat application 7 to 14 days after		<ul> <li>Minimum retreatment interval is 7 days unless a longer interval is stated in the application timing and method section.</li> <li>Do not make more than 4 applications per season to apples (total for insect control and thinning uses combined).</li> <li>Do not graze livestock in treated orchards.</li> <li>Do not apply in excess of 400 gal water or in less that 50 gal water per acre, except for Spotted Tentifort Leafminer control in the State of Washington, where one aerial application may be made at the rate of 1 to pts/A in 5 to 15 gallons of</li> </ul>	
			<ul> <li>water per acre.</li> <li>Additional applications can be made with ground equipment.</li> <li>Brown Marmorated Stink Bugs are very mobile pests.</li> </ul>			
	White Apple Leafhoppers	2 to 4 pt/A	Apply by ground when pests are present in significant numbers. Repeat applications at 10 to 14 day intervals.			They may reinfest the treated area quickly. If another application is needed prior to the minimum application interval, use a
	Brown Marmorated Stink Bug	1.5 to 4 pt/A in 50 to 400 gal water/A	Apply by ground when insect populations reach threshold. Repeat at 7 day intervals. Thorough coverage improves performance. Use of a wetting agent can improve coverage.		different insecticide. Best results follow direct spraying of the target pest.	

# APPLE THINNING - NJ, PA, VA, AND WV ONLY

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Apple Thinning		2 to 4 pt/A (1 to 2 pt/100 gallon dilute, not to exceed 4 pt/A)	Make apple thinning applications using ground equipment.  Apply 1 to 2 full dilute sprays between 5 to 30 days after full bloom (petal fall / 5 mm to 20 mm fruit diameter).  A spray oil or surfactant such as Tween 20, LI 700, Regulaid, or their equivalent may be added to enhance the thinning effect.  Tank mix combinations of Vydate L and Ethrel, Accel, or Naphthalene Acetic Acid (NAA) have successfully thinned several heavy setting and hard to thin varieties. Consult Ethrel, Accel, or Naphthalene Acetic Acid (NAA) labels for rates and use instructions. Lower rates of Ethrel, Accel, or NAA may be desirable when less thinning is needed.	N/A	<ul> <li>Do not apply more than 8 pt (1 gal) DuPont Vydate L per acre per season.</li> <li>Minimum retreatment interval is 5 days.</li> <li>Do not make more than 4 applications per season to apples (total for insect control and thinning uses).</li> <li>Do not graze livestock in treated orchards.</li> <li>Do not apply in excess of 400 gal. water or in less than 50 gal. water per acre.</li> <li>Factors such as tree age, variety, previous crop, pruning, bloom, high temperature, rainy and cloudy weather, and degree of set favor excessive fruit thinning with this product. Rates may vary depending on variety and local orchard conditions.</li> <li>Vydate L may cause increase in russet on those varieties prone to russet (i.e. golden delicious, stayman, etc.).</li> <li>Consult with your County Extension Service or other experts for advice on the proper use of Vydate L.</li> </ul>

# BANANAS AND PLANTAINS - PUERTO RICO ONLY

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Bananas, Plantains	Nematodes (Radopholus similis, and species of Pratylenchus, Meloidogyne, Rotylenchulus, Helicotylenchus), and Banana Corm Borer (Cosmopolites sordidus)	Spot Gun: Planting Treatment: 5 to 10 ml undiluted Vydate L/corm (or "seed") in the planting hole. Post-planting Treatment as Extension of Planting Treatment: 5 to 10 ml undiluted Vydate L/corm.	Spot Gun Treatments: Apply using a spot gun applicator with a coarse spray nozzle.  Apply and cover the treated corm with soil. Two to three months after planting, repeat the application at the same rate. If the developing pseudostem is 1 ft tall or shorter, apply the pesticide directly over the top, wetting the leaves and leaf axils; if the pseudostem is higher, apply the pesticide to the soil in a semicircular pattern, directing the product as close as possible to the developing pseudostem. For high infestations, use a high rate and shorten the interval between applications.  At 3 to 4 month intervals, reapply the product using the same application regimen as in the 2 to 3 month regimen.  When a sucker or "follower" has been selected for the production of the ratoon crop, apply the product to the selected sucker at the same rate and frequency.	1	<ul> <li>Do not apply more than 16 pt (2 gal) DuPont Vydate L per acre per year.</li> <li>Minimum retreatment interval is 21 days unless a longer interval is stated in the application Timing and Method section.</li> <li>Do not apply more than 4 applications per season.</li> <li>Do not use Vydate L with heavy infestations of nematodes.</li> <li>Vydate L is most effective when spot gun applications are made at the beginning of the rainy season, or when the soil moisture is adequate.</li> <li>Before making applications, remove weeds and leaf trash from the treatment area.</li> <li>Do not permit animals to graze or forage in treated areas.</li> <li>Spot gun: If applied to soil surface around pseudostem then incorporate product into soil by water or mechanical means.</li> <li>Drip: For best results, buffer the injection solution of Vydate L to a pH of 5. Monitor nematode</li> </ul>
		Drip Chemigation: Apply 1/2 to 2/3 gal/A through a drip application system. make the injection of Vydate L into the irrigation cycle at a time which will result in the entire root zone being treated.	Drip Chemigation Treatments:  New plantings: Start applications 2 to 3 months after planting. Make a repeat application 21 days later. Make additional application(s), 2-3 months later.  Existing plantings: Make two applications 21 days apart at the start of new root growth and then 2-3 months later make additional application(s). Minimum application interval is 21 days.		populations via soil sampling. Begin treatments when the local threshold is exceeded.

# CITRUS – ALL STATES OR AS SPECIFIED

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Citrus	Citrus Rust Mite	1/4 to 1 pt/100 gal water; spray to runoff using up to 400 gal water/A.  Do not apply more than 4 pts product per acre.	Apply by ground when significant infestations are found. For light to moderate infestations, apply at 4 to 6 week intervals; for moderate to heavy infestations, apply at 2 to 3 week intervals as long as the infestation continues.	7	<ul> <li>Do not apply more than 24 pt (3 gal) DuPont Vydate L per acre per year.</li> <li>Do not apply more than 8 pt/A (1 gal) in any 30 day period.</li> <li>Minimum retreatment interval is 14 days unless a longer interval is stated in</li> </ul>
	Citrus Thrips	2 to 4 pt/A; to give uniform coverage, use from 100 to 500 gal water/A by ground or 10 to 20 gals water/A by air.	Apply by ground or air in early spring before bloom when new growth is 3" to 4" long. Apply at petal fall (to prevent fruit scarring) and during midsummer (to protect new growth on young trees).		<ul> <li>the application Timing and method section.</li> <li>Do not make more than six applications per year.</li> <li>Do not graze livestock in treated orchards.</li> <li>This product is toxic to bees. Do not apply when</li> </ul>
(CA)	Citrus Nematode suppression	drip chemigation; use 2 to 4 pt/A at 14 day intervals or 4 to 8 pt/A at	Initiate treatment in the spring when soil temperatures at 12 inches depth have reached 50 F. Continue treatments until soil temperature drops below 50 F. Treatments in April, May, and June and continued through August, September, and October have usually given good response. Adjust flow from injection equipment to use contents over a period of not less than 1 hour.		bees are in the crop area. Crops can be treated during bloom if applications are made between one hour before sunset and one hour after sunrise, or when the ambient temperature is below 55° F. • For drip and micro sprinkle applications, best results occur when Vydate L is introduced into the irrigation water during the
(FL)	Citrus & Sting Nematode suppression	4 to 8 pt by micro sprinkler chemigation per grove acre; use 30-45 day intervals. Make 3 to 6 applications per year.	Initiate treatments in early spring and/or early fall for optimal response.		last third of the irrigation cycle. Run irrigation systems a sufficient amount of time prior to Vydate L injection to have all emitters functioning properly.  • Following injection, flush the system for a minimum of 10 minutes and a maximum of 20 minutes after the last emitter contains Vydate L.

# **NON-BEARING FRUIT - (AS SPECIFIED)**

Refer to the appropriate table for use directions in your state and apply DuPont Vydate L as instructed.

Non Bearing Fruit in AL, FL, GA, IN, KY, MS, NC, OH, SC, TX (EXCEPT the Rio Grande Valley of Texas as specified in the "Product Information" section of this label), and WV

		in the "Product in	ntormation" section of this	iabei), and v	VV
Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Nonbearing Fruit* Apple, Cherry, Citrus, Peach, Pear	Mites, Insects (including Aphids, Leafhoppers, Leafminers, Thrips)	Foliar Treatment: 2 to 4 pt/A in at least 100 gal water/A.	Apply by air or ground when insect infestations are at an economic level. For best results, use higher spray volumes to achieve maximum coverage.	_	<ul> <li>Do not apply more than 28 pt (3.5 gal) Vydate L per acre per season.</li> <li>Minimum retreatment interval is 14 days.</li> <li>Do not make more than 5 foliar applications per</li> </ul>
* Non- bearing trees that will not bear fruit within 12 months after application	Nematodes [including Root Knot (except Javanese), Sting Lesion, and Burrowing Nematodes]	Preplant Soil Incorporated Treatment: 1 gal/A in at least 20 gal water/A. If the preplant soil incorporated treatment is applied as a band treatment, use proportionately less material.	Apply by ground within 24 hrs before transplanting and thoroughly incorporate to a depth of 4 to 8 inches immediately after application.		season (or 6 total applications per season including a preplant application).  • Since varieties are numerous, continually change, and may respond differently to Vydate L, test the product on a small scale before proceeding to large-scale application. Varietal response may also vary if
		Alone or as Supplement to Earlier Soil	Apply by ground four times on a 2 to 3 week schedule. Apply the first spray at first full leaf or when plant is in active growth phase.		Vydate L is mixed with other products.  Do not make foliar applications to plants under water stress or to plants not actively growing. Include a spreader sticker.
	Brown Marmorated Stink Bug	1.5 to 4 pt/A in 50 to 400 gal water/A.	Apply by ground when insect populations reach threshold. Repeat at 14 day intervals. Thorough coverage improves performance. Use of a wetting agent can improve coverage.		<ul> <li>Use only on commercial plantings; do not use on home plantings.</li> <li>Brown Marmorated Stink Bugs are very mobile pests They may reinfest the treated area quickly. If another application is needed prior to the minimula application interval, use a different insecticide. Best results follow direct sprayin of the target pest.</li> </ul>

	Non Bearing Fruit in AR, KS, and OK					
Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information	
	Mites, Insects (including		Apply by air or ground when insect infestations are at an	_	Do not apply more than 20 pt (2.5 gal) Vydate L per	
Apple,	Aphids,	least 100 gal	economic level. For best		acre per season.	
Cherry,	Leafhoppers,	water/A.	results, use higher spray		Minimum retreatment	
Citrus,	Leafminers, Thrips)		volumes to achieve maximum coverage.		interval is 14 days.	

* Non-bearing trees that will not bear fruit within 12 months after application	Nematodes [including Root Knot (except Javanese), Sting Lesion, and Burrowing Nematodes]	Preplant Soil Incorporated Treatment: 1 gal/A in at least 20 gal water/A. If the preplant soil incorporated treatment is applied as a band treatment, use proportionately less material. Foliar Treatment	Apply by ground within 24 hrs before transplanting and thoroughly incorporate to a depth of 4 to 8 inches immediately after application.  Apply by ground three times		<ul> <li>Do not make more than 3 foliar applications per season (or 4 total applications per season including a preplant application).</li> <li>Since varieties are numerous, continually change, and may respond differently to DuPont Vydate L, test the product on a small scale before proceeding to large-scale</li> </ul>
		Alone or as Supplement to Earlier Soil Treatment: 2 to 4 pt/A in at least 100 gal water/A.	on a 2 to 3 week schedule. Apply the first spray at first full leaf or when plant is in active growth phase.		proceeding to large-scale application. Varietal response may also vary if Vydate L is mixed with other products.  • Do not make foliar applications to plants under water stress or to plants not actively growing. Include a spreader sticker.  • Use only on commercial plantings; do not use on home plantings.  • Brown marmorated stink bugs are very mobile pests. They may reinfest the treated area quickly. If another application is needed prior to the minimum application interval, use a different insecticide. Best results follow direct spraying of the target pest.
	Brown Marmorated Stink Bug	1.5 to 4 pt/A in 50 to 400 gal water/A.	Apply by ground when insect populations reach threshold. Repeat at 14 day intervals. Thorough coverage improves performance. Use of a wetting agent can improve coverage.	an sp	

#### Non Bearing Fruit in ALL OTHER STATES and the Rio Grande Valley of TX (as specified in the "Product Information" section of this label) EXCEPT THE PREVIOUSLY SPECIFIED STATES Last **Application Application Timing and** (days to Method harvest) **Further Use Information** Crop Insect **Application Rate** Nonbearing Mites, Insects Foliar Treatment: Apply by air or ground every Do not exceed 4 pints per 7-14 days when insect Fruit\* (including 2 to 4 pt/A in 100 acre per application when gal water/A or 4 to infestations are at an Apple, Aphids, applied by air. Cherry, Leafhoppers, 8 pt/A in a economic level. For best Do not apply more than 32 Citrus, Leafminers, maximum of 300 results, use higher spray pt (4 gal) Vydate L per Peach, Pear Thrips) gal water/A. volumes to achieve acre per season. maximum coverage. Minimum retreatment interval is 7 days unless a Apply by ground within 24 Preplant Soil Nematodes \* Nonlonger interval is stated in [including Root Incorporated hrs before transplanting and bearing the application Timing and Knot (except Treatment: 2 gal/A thoroughly incorporate to a trees that Method section. Javanese), in at least 20 gal depth of 4 to 8 inches will not bear Do not make more than 8 Sting Lesion, water/A. If the immediately after fruit within applications per season. and Burrowing preplant soil application. 12 months · Since varieties are Nematodes] incorporated after numerous, continually treatment is application change, and may respond applied as a band differently to DuPont treatment, use Vydate L, test the product proportionately on a small scale before less material.

	Foliar Treatment Alone or as Supplement to Earlier Soil Treatment: 2 to 4 pt/A in 100 gal water applied as a diluted spray; do not exceed 8 pt/A.	Apply by ground four times on a 2 to 3 week schedule. Apply the first spray at first full leaf or when plant is in active growth phase.	proceeding to large- scale application. Varietal response may also vary if Vydate L is mixed with other products.  Do not make foliar applications to plants under water stress or to plants not actively
Brown Marmorated Stink Bug	1.5 to 4 pt/A in 50 to 400 gal water/A.	Apply by ground when insect populations reach threshold. Repeat at 7 day intervals. Thorough coverage improves performance. Use of a wetting agent can improve coverage.	growing. Include a spreader sticker.  Use only on commercial plantings; do not use on home plantings.  Brown marmorated stink bugs are very mobile pests. They may reinfest the treated area quickly. If another application is needed prior to the minimum application interval, use a different insecticide. Best results follow direct spraying of the target pest.

# PEARS - ALL STATES EXCEPT CA (NOT REGISTERED FOR USE IN CALIFORNIA)

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Pears	Mite, McDaniel Mite, Two- Spotted Spider	water/A; for best results, use a dilute application.	appear. For light infestations, use a low rate; for heavy infestations, use a high rate. Use ground application only.	14	<ul> <li>Do not apply at bloom or within 30 days after full bloom, as fruit thinning may occur.</li> <li>Do not apply more than 8 pt (1 gal) DuPont Vydate L per acre per season.</li> </ul>
	Brown Marmorated Stink Bug	1.5 to 4 pt/A in 50 to 400 gal water/A.	Apply by ground when insect populations reach threshold. Thorough coverage improves performance. Use of a wetting agent can improve coverage.		<ul> <li>Do not make more than 1 application per season.</li> <li>This product has been tested on Bartlett and d'Anjou varieties of pears without russeting. Use on other varieties on a small scale until the possibility of russeting has been evaluated.</li> <li>Do not graze livestock in treated orchards.</li> <li>Brown marmorated stink bugs are very mobile pests. They may re-infest the treated area quickly. If another application is needed, use a different insecticide. Best results follow direct spraying of the target pest.</li> </ul>

# PINEAPPLES - ALL STATES EXCEPT CA (NOT REGISTERED FOR USE IN CALIFORNIA)

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information		
Pineapple	Reniform and Root Knot Nematodes	1 gal/A by drip chemigation or 1	Apply within 1 week after planting. Soil broadcast treatments must be incorporated into soil by water or mechanical means.	30	30	(4 gal) Vy year.  • Minimum is 14 day  • Do not m application	<ul> <li>Do not apply more than 32 pt (4 gal) Vydate L per acre per year.</li> <li>Minimum retreatment interval is 14 days.</li> <li>Do not make more than 8 applications per season.</li> </ul>
		Treatment as Extension of Planting	Apply at 2 to 4 week intervals. Begin applications when pineapple roots begin to grow following planting.		<ul> <li>Do not graze treated fields within 30 days of application.</li> <li>Supplemental foliar and drip applications are most effective if crops were treated at planting with Vydate L or soil was treated before</li> </ul>		
		Drip Chemigation: 1/4 to 1 gal/A.	Apply at 2, 4, or 8 week intervals. Begin applications when pineapple roots begin to grow following planting.		planting with a standard fumigant.  Best results occur under optimum soil moisture conditions.		

# SPECIFIC USES - VEGETABLES

Where not otherwise specified, apply DuPont™ Vydate L in sufficient water to obtain uniform coverage.

### CARROTS (EXCEPT CA - NOT REGISTERED FOR USE IN CALIFORNIA

Refer to the appropriate table for use directions in your state and apply Vydate L as instructed.

Carrots			, MS, MT, ND, NE, OK, SD, roduct Information" section		EPT the Rio Grande Valley el.), WI, and WY
Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Carrots	Root Knot (Except Javanese), Lesion, Sting, Spiral and Stunt Nematodes	Pre/post plant Soil Treatment: 1 gal/A in at least 20 gal water/A as a soil broadcast or banded treatment.  Chemigation: 1 gal/A in sufficient water to ensure uniform coverage.	Apply within 1 week of planting if applied preplant or before emergence if applied post plant. Thoroughly incorporate at least 2 inches deep into the soil.  Apply before crop emergence.	14	<ul> <li>Do not apply more than 20 pt (2.5 gal) Vydate L per acre per season.</li> <li>Minimum retreatment interval is 14 days.</li> <li>Do not make more than 3 soil directed post emergence applications per season (or 4 total applications per season including a preplant application).</li> </ul>
		In-Furrow Treatment: 1 gal/A in at least 20 gal water/A.	Apply in the seed furrow during planting.		
	Carrot Weevil	2 to 4 pt/A as a soil directed spray in 20 gal water/A.	Apply up to three times at 2 to 3 week intervals beginning when insects appear in damaging numbers. Soil		

applications must be incorporated into soil by water or mechanical means to a depth of at		
least 2 inches.		

# Carrots in ALL OTHER STATES and the Rio Grande Valley of TX (as specified in the "Product Information" section of this label) EXCEPT CA AND THE PREVIOUSLY SPECIFIED STATES

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information		
Carrots	Root Knot (Except Javanese), Lesion, Sting, Spiral and Stunt Nematodes	Pre/post plant Soil Treatment: 1 to 2 gal/A in at least 20 gal water/A as a soil broadcast treatment.	Apply within 1 week of planting if applied preplant or before emergence if applied post plant. Thoroughly incorporate at least 2 inches deep into the soil.	14	<ul> <li>Do not apply more than 32 pt (4 gal) DuPont Vydate L per acre per season.</li> <li>Minimum retreatment interval is 14 days.</li> <li>Do not make more than 8 applications per season.</li> </ul>		
		Chemigation: 1 gal/A in sufficient water to ensure uniform coverage.	Apply before crop emergence.				
		In-Furrow Treatment: 1 to 2 gal/A in at least 20 gal water/A.	Apply in the seed furrow during planting.				
	Carrot Weevil	2 to 4 pt/A as a soil directed spray in 20 gal water/A.	Apply up to three times at 2 to 3 week intervals beginning when insects appear in damaging numbers. Soil applications must be incorporated into soil by water or mechanical means to a depth of at least 2 inches.				

# Celery in MI, OH, PA, AND TX (EXCEPT the Rio Grande Valley of TX as specified in the "Product Information" section of this label)

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Celery	Root Knot Nematode ( <i>Meloidogyne</i> <i>hapla</i> ) and Pin	Transplant Treatment: 1/2 to 1 gal/A in at least 100 gal water/A.	Apply by ground immediately after transplanting celery seedlings in the field.	21	<ul> <li>Do not apply more than 24 pt (3 gal) Vydate L per acre per season.</li> <li>Minimum retreatment interval</li> </ul>
	Nematode	Preplant Row Soil Treatment: 1 gal/A in 20 gal water/A applied in an 8" to 16" wide band.	Thoroughly incorporate to a depth of 4" in soil.		<ul> <li>is 14 days.</li> <li>Do not make more than 4 foliar applications per season (or 5 total applications per season including a transplant or preplant application).</li> <li>Soil applications must be incorporated immediately into soil to a depth of 2</li> </ul>
		Foliar Treatment as Extension of Preplant Treatment: 4 pt/A as a directed	Apply by ground two sprays 2 to 3 weeks apart beginning 2 to 3 weeks after transplanting.		

	spray in at least 20 gal water/A.		inches by water or mechanical means.
Carrot Weevil	Foliar Treatment Alone or as Extension of Preplant Nematode Treatment: 4 pt/A as a soil directed spray in at least 20 gal water/A.	Apply by ground two or three sprays 2 to 3 weeks apart beginning 2 to 3 weeks after transplanting. Incorporate into soil using water or mechanical means.	<ul> <li>If furrow irrigation is to be used following a soil application, apply Vydate L as two bands of 1 to 2 inches width each directed to the bed shoulders. Place bands a few inches below the anticipated water line when furrows are full.</li> <li>Do not apply narrow band concentrated spray directly over young celery plants unless treatment is followed by sprinkler irrigation.</li> <li>Under very high nematode populations, use of another effective soil treatment product at or before planting may be necessary. These can be followed by foliar or soil directed applications of Vydate L to extend or maintain protection.</li> <li>Supplemental applications of Vydate L should begin when nematode populations begin to recover. The timing of the first Vydate L application will depend on the longevity of protection offered by the product applied to the soil at or before planting.</li> </ul>

1	the Rio Grande		Celery in AZ, CA, FL and pecified in the "Product Inf	ormation" se	ection of this label)
Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Celery (AZ, CA, FL)	Serpentine Leafminers (except Liriomyza trifolii)	2 to 4 pt/A as a foliar spray; use at least 10 gal water/A for aerial application. Foliar Ground Treatment: 2 to 4 pt/A as a 1-2 inch band directly over or near base of celery plants.	Apply by ground or air when insects first appear. Repeat at 5 to 7 day intervals. Use a low rate for light infestations; an intermediate rate for heavy infestations; and a high rate for severe infestations.	21	<ul> <li>Do not apply more than 24 pt (3 gal) DuPont Vydate L per acre per season.</li> <li>Minimum retreatment interval is 5 days unless a longer interval is stated in the application Timing and method section.</li> <li>Do not make more than 8 applications per season.</li> <li>Soil applications must be</li> </ul>
(FL and Rio Grande Valley of TX)	Root Knot Nematode ( <i>Meloidogyne</i> <i>hapla</i> ) and Pin	Transplant Treatment: 1/2 to 1 gal/A in at least 100 gal water/A.	Apply by ground immediately after transplanting celery seedlings in the field.		incorporated immediately into soil to a depth of at least 2 inches by water or mechanical means.
	Nematode	Foliar Treatment: 1 gal/A in at least 100 gal water/A as a directed spray.	Apply by ground first spray 3 weeks after transplanting; apply second spray 3 weeks after first treatment.		If furrow irrigation is to be used following a soil application, apply Vydate L as two bands of 1 to 2 inches width each directed

		Preplant Row Soil Treatment: 2 gal/A in 20 gal water/A applied in an 8" to 16" wide band.  Foliar Treatment as Extension of Preplant Treatment: 4 pt/A as a directed spray in at least 20 gal water/A.	Thoroughly incorporate to a depth of 4" in soil.  Apply by ground two sprays 2 to 3 weeks apart beginning 2 to 3 weeks after transplanting.	to the bed shoulders. Place bands a few inches below the anticipated water line when furrows are full.  • Do not apply narrow band concentrated spray directly over young celery plants unless treatment is followed by sprinkler irrigation.  • Soil injection: Application must be made at least 2 inches deep to moist soil
	Carrot Weevil	Foliar Treatment Alone or as Extension of Preplant Nematode Treatment: 4 pt/A as a soil directed spray in at least 20 gal water/A.	Apply by ground two or three sprays 2 to 3 weeks apart beginning 2 to 3 weeks after transplanting. Incorporate into soil using water or mechanical means.	<ul> <li>and must be followed as soon as possible with irrigation water to activate the Vydate L.</li> <li>Under very high nematode populations, use of another effective soil treatment product at or before planting may be necessary. These can be followed by foliar or</li> </ul>
(CA)	Root Knot and Stubby Root Nematodes	Soil Injection: 4	Apply by ground after seeding or transplanting. Apply as a band spray or by shank injection of 1 to 2 inches depth at 21 to 30 day intervals after the initial treatment.	soil directed applications of Vydate L to extend or maintain protection. Supplemental applications of Vydate L should begin when nematode populations begin to recover. The timing of the first Vydate L application will depend on the longevity of protection offered by the product applied to the soil at or before planting.

# <u>CUCUMBER, CANTALOUPE, HONEYDEW MELON, WATERMELON, SQUASH, PUMPKIN – (AS SPECIFIED)</u>

Refer to the appropriate table for use directions in your state and apply DuPont Vydate L as instructed.

Cucumber, Cantaloupe, Honeydew Melon, Watermelon, Squash, Pumpkin in AL, FL, GA, MS, NC, SC and TX (EXCEPT the Rio Grande Valley of TX as specified in the "Product Information" section of this label)

(EXCE	Pi the Rio Gi	ande valley of TA a	is specified in the Produc	ct information	section of this label)
Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Cucumber, Cantaloupe, Honeydew Melon, Watermelon, Squash, Pumpkin	Root Knot (Except Javanese), Lesion, Ring, Sting, and Stunt Nematodes.	Preplant and Planting Soil Treatment: 1/2 to 1 gal/A as a broadcast or band treatment; for band treatment, use proportionately less.	Following application, but before planting, thoroughly incorporate 2" to 4" into soil.	1	<ul> <li>Do not apply more than 16 pt (2 gal) per acre per season.</li> <li>Minimum retreatment interval is 7 days unless a longer interval is stated in the application Timing and Method section.</li> <li>The maximum number of applications per season is</li> </ul>
		Foliar Treatment Alone or as Extension to Preplant and Planting	Apply by air or ground with the first spray 2 to 4 weeks after planting; apply second spray 2 to 3 weeks after first spray. Use the low rate for light		determined by the preplant/at plant application rate.  If a Vydate L preplant or at plant application less than or equal to 1/2 gal/A is

	Trootmant: 2 to 4	infactations Deat requite	mada: Da not make mar-
	Treatment: 2 to 4 pt/A	infestations. Best results follow usage of Vydate L as a soil treatment as described above.	made: Do not make more than 3 foliar, drip chemigation, or soil injection applications per
Liriomyza spp. Leafminers Aphids Thrips	Foliar Treatment: 2 to 4 pt/A	Where Leaf Miner infestations occur annually, initiate air or ground treatment schedule 2 to 4 weeks after planting. Otherwise apply when insects first appear. If a second application is needed, wait at least 7 days before repeating foliar treatment. Apply a low rate for light infestations; apply a high rate for severe infestations.	season (or 4 total including preplant or at plant application).  If a Vydate L preplant or at plant application of greater than 1/2 gal/A is made: Do not make more than 2 foliar, drip chemigation, or soil injection applications per season (or 3 total including preplant or at plant application).  Under very high nematode populations, use of another effective soil treatment
Root Knot (Except Javanese) Nematode supplemer control	Control - Drip Chemigation and - Soil Injection	For supplemental control of Root Knot Nematodes (Meloidogyne incognita) following a labeled preplant application of a soil fumigant, initiate Vydate L treatments either at the time of transplanting or within 14 days of transplanting. Make a second and third application on a 10 to 14 day interval.	product at or before planting may be necessary. These can be followed by foliar, drip or soil injection applications of Vydate L to extend or maintain protection. Supplemental applications of Vydate L should begin when nematode populations begin to recover. The timing of the first Vydate L application will depend on the longevity of protection
Liriomyza spp. Leafminers (suppressi		Initiate treatments either at the time of transplanting or within 14 days following transplanting. Make a second and third application on 10 to 14 day intervals.	offered by the product applied to the soil at or before planting.  • Drip: For best results, introduce the Vydate L into the irrigation water during the middle one-third of the irrigation cycle. Adjust the flow from the injection equipment to apply the Vydate L over a period of 30 minutes to one hour. Allow at least 24 hours between the Vydate L drip application and the next irrigation cycle.  • Soil injection: Application must be at least 2 inches deep, made to moist soil and must be followed as soon as possible with either sprinkler or furrow irrigation water to activate the Vydate L.

Cucumber, Cantaloupe, Honeydew Melon, Watermelon, Squash, Pumpkin in ALL OTHER STATES and the Rio Grande Valley of TX (as specified in the "Product Information" section of this label) EXCEPT THE PREVIOUSLY SPECIFIED STATES

Crop Cucumber, Cantaloupe, Honeydew Melon, Watermelon, Squash, Pumpkin	Insect Root Knot (Except Javanese), Lesion, Ring, Sting, and Stunt Nematodes.	Application Rate Preplant and Planting Soil Treatment: 1 to 2 gal/A as a broadcast or band treatment; for band treatment, use proportionately less.	Application Timing and Method  Following application, but before planting, thoroughly incorporate 2" to 4" into soil. Use the low rate for light infestations.	Last Application (days to harvest)	Further Use Information  Do not apply more than 24 pt (3 gal) per acre per season.  Minimum retreatment interval is 7 days unless a longer interval is stated in the Application Timing and Method section.  Do not make more than 8 applications per season.
		Foliar Treatment Alone or as Extension to Preplant and Planting Treatment: 2 to 4 pt/A.	Apply by air or ground with the first spray 2 to 4 weeks after planting; apply second spray 2 to 3 weeks after first spray. Use the low rate for light infestations. Best results follow usage of Vydate L as a soil treatment as described above.		Under very high nematode populations, use of another effective soil treatment product at or before planting may be necessary. These can be followed by foliar, drip or soil injection applications of Vydate L to extend or maintain protection. Supplemental
	Liriomyza spp. Leafminers, Aphids Thrips	Foliar Treatment: 2 to 4 pt/A	Where Leaf Miner infestations occur annually, initiate air or ground treatment schedule 2 to 4 weeks after planting. Otherwise apply when insects first appear. If additional applications are needed, wait at least 7 days before repeating foliar treatment. Apply a low rate for light infestations; apply a high rate for severe infestations.		applications of Vydate L should begin when nematode populations begin to recover. The timing of the first Vydate L application will depend on the longevity of protection offered by the product applied to the soil at or before planting.  • Drip: For best results, introduce the Vydate L into the irrigation water during the middle one-third of the irrigation cycle. Adjust the flow from the injection equipment to apply the Vydate L over a period of 30 minutes to one hour. Allow at least 24 hours between the Vydate L drip application and the next irrigation cycle.  • Soil injection: Application must be made to moist soil and must be followed as soon as possible with either
East of Rockies	Root Knot (Except Javanese) Nematode - supplemental control	Supplemental Control - Drip Chemigation and Soil Injection Systems: 2 to 4 pt/A of plant bed. *Refer to the rate table at the end of the vegetable section.	For supplemental control of root Knot Nematodes ( <i>Meloidogyne incognita</i> ) following a labeled preplant application of a soil fumigant, initiate Vydate L treatments either at the time of transplanting or within 14 days of transplanting. Make sequential applications on a 10 to 14 day interval.		
East of Rockies	Liriomyza spp. Leafminers (suppression)	Drip Chemigation and Soil Injection Systems: 2 to 4 pt/A of plant bed *Refer to the rate table at the end of the vegetable section.	Initiate treatments either at the time of transplanting or within 14 days following transplanting. Make sequential applications at 10 to 14 day intervals.	I .	sprinkler or furrow irrigation water to activate the Vydate L.

West of the	Root Knot	Supplemental	Initiate treatments either at	
Rockies	(Except	Control - Drip	the time of seedling	
	Javanese),	Chemigation	emergence or	
	Lesion, Ring,	Systems and Soil	transplanting, or within 14	
	Sting and	Injection Systems:	days of seedling	
	Stunt	2 to 4 pt/A of plant	emergence or	
	Nematodes	bed. *Refer to the	transplanting. Make	
		rate table at the	sequential applications on	
		end of the	a 14 to 21 day interval.	
		vegetable section.		

# EGGPLANT - AS SPECIFIED

Refer to the appropriate table for use directions in your state and apply DuPont Vydate L as instructed.

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Eggplant	Aphids, Colorado Potato Beetle, Leafminers, Mites	Foliar Treatment: 2 to 4 pt/A	Apply by ground equipment when insects first appear. Repeat application at 10 days to 3 week intervals.	1	<ul> <li>Do not apply more than 16 pt (2 gal) Vydate L per acre per season.</li> <li>Minimum retreatment interval is 10 days unless a longer interval is stated in</li> </ul>
	Nematodes	Soil Treatment: 4 pt/A as a band treatment plus foliar treatment as outlined below.	Apply 2 to 3 weeks after transplanting. Repeat application 2 to 4 weeks after first application. Soil applications must be incorporated into soil by water or by mechanical means at least 2 inches deep.	7	the application Timing and Method section.  Do not make more than 4 foliar, drip, or soil injection applications per season (or 6 total applications including two postplant soil treatments.)  Under very high nematode
		Foliar Treatment: 4 pt/A as a foliar spray.	Foliar Treatment: apply twice by ground equipment at 10 days to 2 week intervals 2 to 4 weeks after the second soil treatment.		populations, use of another effective soil treatment product at or before planting may be necessary. These can be followed by foliar, drip or soil injection
	Root Knot (Except Javanese) Nematode - supplemental control	Supplemental Control - Drip Chemigation and Soil Injection Systems: 2 to 4 pt/A of plant bed. *Refer to the rate table at the end of the vegetable section.	For supplemental control of root Knot Nematodes (Meloidogyne incognita) following a labeled preplant application of a soil fumigant, initiate Vydate L treatments either at the time of transplanting or within 14 days of transplanting. Make sequential applications on a 10 to 14 day interval.		applications of Vydate L to extend or maintain protection. Supplemental applications of Vydate L should begin when nematode populations begin to recover. The timing of the first Vydate L application will depend on the longevity of protection offered by the product applied to the soil and or before planting.  Drip: For best results, introduce the Vydate L into the irrigation water during the middle one-third of the irrigation cycle. Adjust the flow from the injection equipment to apply the Vydate L over a period of 3 minutes to one hour. Allow at least 24 hours between

			the Vydate L drip application and the next irrigation cycle.  • Soil injection: Application must be made at least 2 inches deep to moist soil and must be followed as soon as possible with either sprinkler or furrow irrigation water to activate the Vydate L.
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# Eggplant in AR, KS, LA, OK, and TX (EXCEPT the Rio Grande Valley of TX as specified in the "Product Information" section of this label) Last

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Eggplant	Aphids, Colorado Potato Beetle, Leafminers, Mites	Foliar Treatment: 2 to 4 pt/A	Apply by ground equipment when insects first appear. Repeat application at 10 days to 3 week intervals.	1	<ul> <li>Do not apply more than 12 pt (1.5 gal) DuPont Vydate L per acre per season.</li> <li>Minimum retreatment interval is 10 days.</li> <li>Do not make more than 3</li> </ul>
	Root Knot (Except Javanese) Nematode - supplemental control	Supplemental Control - Drip Chemigation and Soil Injection Systems: 2 to 4 pt/A of plant bed. *Refer to the rate table at the end of the vegetable section.	For supplemental control of Root Knot Nematodes ( <i>Meloidogyne incognita</i> ) following a labeled preplant application of a soil fumigant, initiate Vydate L treatments either at the time of transplanting or within 14 days of transplanting. Applications should begin when nematode populations begin to recover. The timing of the first Vydate L application will depend on the longevity of the protection offered by the product applied to the soil. Make sequential applications on a 10 to 14 day interval.	7	foliar, drip, or soil injection applications per season.  • Drip: For best results, introduce the Vydate L into the irrigation water during the middle one-third of the irrigation cycle. Adjust the flow from the injection equipment to apply the Vydate L over a period of 30 minutes to one hour. Allow at least 24 hours between the Vydate L drip application and the next irrigation cycle.  • Soil injection: Application must be made at least 2 inches deep to moist soil and must be followed as soon as possible with either sprinkler or furrow irrigation water to activate the Vydate L.

# Eggplant in ALL OTHER STATES and the Rio Grande Valley of TX (as specified in the "Product Information" section of this label) EXCEPT THE PREVIOUSLY SPECIFIED STATES

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Eggplant	Aphids, Colorado Potato Beetle, Leafminers, Mites	Foliar Treatment: 2 to 4 pt/A	Apply by ground equipment when insects first appear. Repeat application at 1 to 3 week intervals.	1	<ul> <li>NOT REGISTERED IN CALIFORNIA FOR USE ON NEMATODES.</li> <li>Do not apply more than 24 pt (3 gal) DuPont Vydate L per acre per season.</li> </ul>
	Nematodes	Soil Treatment: 1 gal/A as a band	Apply 2 to 3 weeks after transplanting. Repeat	7	<ul> <li>Minimum retreatment intervise 7 days unless a longer</li> </ul>

	treatment plus foliar treatment as outlined below.	application 4 weeks after first application. Soil applications must be incorporated into soil by water or by mechanical means.	interval is stated in the Application Timing and Method section.  Do not make more than 8 applications per season.  Under very high nematode
	Foliar Treatment: 4 pt/A as a foliar spray.	Foliar Treatment: apply twice by ground equipment at 1 to 2 week intervals 2 to 4 weeks after the second soil treatment.	populations, use of another effective soil treatment product at or before planting may be necessary. These can be followed by foliar, drip or soil injection applications
Root Knot (Except Javanese) Nematode - supplemental control	Supplemental Control - Drip Chemigation and Soil Injection Systems: 2 to 4 pt/A of plant bed *Refer to the rate table at the end of the vegetable section.	For supplemental control of Root Knot Nematodes (Meloidogyne incognita) following a labeled preplant application of a soil fumigant. Initiate Vydate L treatments either at the time of transplanting or within 14 days of transplanting. Make sequential applications on a 10 to 14 day interval.	of Vydate L to extend or maintain protection. Supplemental applications of Vydate L should begin when nematode populations begin to recover. The timing of the first Vydate L application will depend on the longevity of protection offered by the product applied to the soil at or before planting.  • Drip: For best results, introduce the Vydate L into the irrigation water during the middle one-third of the irrigation cycle. Adjust the flow from the injection equipment to apply the Vydate L over a period of 30 minutes to one hour. Allow at least 24 hours between the Vydate L drip application and the next irrigation cycle.  • Soil injection: Application must be made at least 2 inches deep to moist soil and must be followed as soon as possible with either sprinkler or furrow irrigation water to activate the Vydate L.

# **GARLIC - OREGON AND CALIFORNIA ONLY**

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Garlic (OR & CA)	Onion Thrips, Western Flower Thrips	2 to 4 pt/A (min 5 gal water/A by air)	Apply by ground, chemigation, or air before populations start to build when there are 1 to 3 thrips per plant. Repeat applications on a 7 to 10 day schedule may be needed. Vydate L may not provide adequate control of higher populations. Add a wetting agent to improve coverage.	14	<ul> <li>Do not apply more than 18 pints (2 1/4 gal) DuPont Vydate L per acre per season.</li> <li>Minimum retreatment interval is 7 days unless a longer interval is stated in the Application Timing and Method section.</li> <li>Do not make more than 8 applications per season.</li> <li>May not be effective on</li> </ul>
(CA)	Stubby Root, Stem, and	1/2 to 1 gal/A as an in-furrow spray.	Apply by ground at planting.		infested seed or bulb pieces used for planting.

	ulb	Dootomorganas	Dootomorganes: make 2 to	- Cail amplications
No.	ematodes suppression)	Postemergence: 1/2 to 1 gal/A in 20 to 40 gal water/A as a 1 - 2 inch band placed on soil surface at base of plants or 1/2 to 1 gal/A as a soil shank injection application or 1/2 to 1 gal/A via chemigation in pressurized sprinkler systems.	Postemergence: make 2 to 3 applications by ground or chemigation at 14 to 21 day intervals. Vydate L can be applied in sequential treatments as long as the total rate per acre does not exceed 2 1/4 gallons. For sprinkler chemigation, use a minimum of 0.75 acre inch of water to thoroughly incorporate the Vydate L into the root zone. For solid set and wheel-line systems, inject the appropriate amount of Vydate L in the middle of the irrigation cycle.  Shank: application must be made to moist soil and must be followed as soon as possible with either sprinkler or furrow irrigation water to activate Vydate L.	Soil applications must be incorporated into soil by water or mechanical means.
No.		At Planting: 3/4 to 1 gal/A as a ground in-furrow drench in 100 to 150 gal water/A or 1 1/2 to 2 gal/A as a ground in- furrow band spray in 20 to 50 gal water/A.	Incorporate Vydate L ground or air applications with 1/2 to 1 inch of moisture as soon as possible after application. Crop response is usually better from application made to seedling plants (flag leaf to 2 to 3 true leaf).	
		Postemergence: broadcast or band by ground at 1 gal/A in 20 to 50 gal. water/A or broadcast by air at 1/2 gal/A or 1 gal/A via chemigation in pressurized sprinkler systems.	Apply Vydate L in sequential treatments at 14 to 21 day intervals as long as the total rate per acre per crop does not exceed 2 1/4 gallons. Sprinkler Chemigation: Apply Vydate L by center pivot, linear move, wheel line, or solid set sprinkler systems. Use a minimum of 0.75 acre inch of water to thoroughly incorporate the Vydate L into the crop root zone. For solid set or wheel line systems, inject the appropriate amount of Vydate L during the middle third of the irrigation cycle.	

### **GINGER ROOT - HAWAII ONLY**

Crop In	nsect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
ar Bi	Sting, Lesion and Burrowing Nematodes	Preplant soil treatment: apply 1 to 2 gal/A (broadcast); for infurrow band treatment use proportionately less based upon treated area.  Postplant treatment: apply 2 to 4 pts/A by ground in a band application along the sides of the ginger row or as a foliar application to the ginger plants.	Following application incorporate 2 to 4 inches into the soil before planting.  Apply at monthly or every other month intervals.	30	<ul> <li>Do not apply more than 5 gals. DuPont Vydate L per acre per season.</li> <li>Minimum retreatment interval is 30 days.</li> <li>Do not make more than 8 applications of Vydate L per acre per crop.</li> <li>Do not apply by chemigation.</li> </ul>

# ONIONS (DRY BULB ONLY) - CA, ID, MI, NM, OR, TX, AND WA ONLY

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Onions [dry bulbs only] (MI, NM, TX)	Onion Thrips, Western Flower Thrips	1 to 2 pt/A in at least 5 gal water/A.	Apply by ground or air before populations start to build when there are 1 to 3 thrips per plant. Repeat applications at 5-7 day intervals. For light infestations, use a low rate, increasing the rate as the infestation increases. Vydate L may not provide adequate control of higher populations.	14	<ul> <li>Do not harvest tops of treated onions.</li> <li>Do not use on green onions.</li> <li>Do not apply more than 18 pints (2 1/4 gal) DuPont Vydate L per acre per season.</li> <li>Minimum retreatment interval is 5 days unless a longer interval is stated in the Application Timing and</li> </ul>
(CA, OR, ID, WA)	Onion Thrips, Western Flower Thrips	2 to 4 pt/A (min 5 gal water/A by air)	Apply by ground, chemigation, or air before populations start to build when there are 1 to 3 thrips per plant. Repeat applications on a 7-10 day schedule, as needed. Vydate L may not provide adequate control of higher populations. Add a wetting agent to improve coverage.		Method section.  Do not make more than 8 applications per season.  May not be effective on infested seed or bulb pieces used for planting.  Soil applications must be incorporated into soil by water or mechanical means.
(MI, TX)	Stubby root, Stem, and Bulb Nematodes	3/4 to 1 gal/A as an in- furrow drench in 100 to 150 gal water/A	Apply by ground at planting.  Postemergence: Apply by		must be made at least 2 inches deep to moist soil and must be followed as soon as possible with
		or 1-1/2 to 2 gal/A as an in- furrow band spray in 20 to 50 gal water/A or 1/2 to 1 gal/A as an in- furrow spray	ground at flag leaf and 14 to 21 days later. Water is required to move Vydate L into the root zone. For best results, follow the post emergence applications by overhead irrigation or rainfall (1/4 to 1 acre inch)		irrigation water to activate the Vydate L.

		followed by 1 to 2 postemergence band treatments at 1/2 to 1 gal/A in a minimum of 20 gal. water per acre.	as soon as possible after application.
(ID, OR, WA)	Stubby root Nematode (suppression)	At Planting: 3/4 to 1 gal/A as a ground in-furrow drench in 100 to 150 gal water/A or 1 1/2 to 2 gal/A as a ground in- furrow band spray in 20 to 50 gal water/A.	Incorporate Vydate L ground or air applications with 1/2 to 1 inch of moisture as soon as possible after application. Crop response is usually better from application made to seedling plants (flag leaf to 2 to 3 true leaf).
		Postemergence: Ground broadcast or band in the crop row at 1 gal/A in 20 to 50 gals. water/A or broadcast by air at 1/2 gal/A. or 1 gal/A by chemigation in pressurized sprinkler systems.	Vydate L can be applied in sequential treatments at 14-21 day intervals as long as the total rate per acre per crop does not exceed 2 1/4 gallons.  Sprinkler Chemigation: apply Vydate L by center pivot, linear move, wheel line, or solid set sprinkler systems.  Use a minimum of 0.75 acre inch of water to thoroughly incorporate the Vydate L into the crop root zone. For solid set or wheel line systems, inject the appropriate amount of Vydate L during the middle third of the irrigation cycle.
(CA)	Stubby root, Stem, and Bulb Nematodes	1/2 to 1 gal/A as an in-furrow spray.  Postemergence: 1/2 to 1 gal/A in 20 to 40 gal water/A as a 1 - 2 inch band placed on soil surface at base of plants or 1/2 to 1 gal/A as a soil shank injection application or 1/2 to 1 gal via chemigation in pressurized sprinkler systems.	Apply by ground at planting.  Postemergence: Make 2 to 3 applications by ground or chemigation at 14 to 21 day intervals. Vydate L can be applied in sequential treatments as long as the total rate per acre does not exceed 2 1/4 gallons. For solid set and wheel-line systems, inject the appropriate amount of Vydate L in the middle of the irrigation cycle. Shank: Application must be made to moist soil and must be followed as soon as possible with either sprinkler or furrow irrigation water to activate Vydate® L.

# PEPPERS - (AS SPECIFIED)

Refer to the appropriate table for use directions in your state and apply DuPont Vydate L as instructed.

Peppe	Peppers in AR, KS, LA, MS, OK, and TX (EXCEPT the Rio Grande Valley of TX as specified in the "Product Information" section of this label)				
Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Peppers, (Bell & Non-Bell)	Root Knot (except Javanese), Sting, Ring, Stubby Root and Stunt Nematodes	Transplant Water Treatment: 2 pt/A in at least 200 gal of transplant water/A.  Drip Chemigation as a Supplement to Transplant Treatment: 2 pts/A in 40 to 200 gal of water /a.*  Foliar Treatment as Supplement to Transplant Treatment: 2 pt/A. *Refer to the rate table at the end of the vegetable section.	Apply by ground during transplanting operation. When nematode populations are low to moderate, begin with a transplant water treatment and supplement with drip irrigation or foliar sprays by ground or air. Apply first drip irrigation or foliar spray 14 days after transplant. Repeat at 10 days to 2 week intervals to control nematodes and insects.	7	<ul> <li>Do not apply more than 12 pints (1.5 gal) Vydate L per acre per season.</li> <li>Minimum retreatment interval is 10 days.</li> <li>Do not make more than 4 post-transplant applications per season (or 5 total applications per season including a transplant application.)</li> <li>Do not apply as a transplant water treatment during periods of slow plant growth, such as when temperatures fall below 45°F, or crop injury may result.</li> <li>Under very high nematode</li> </ul>
	Green Peach Aphid, Liriomyza spp. leafminer (suppression), Pepper Weevil** and Thrips	Foliar Treatment: 2 pt/A Drip Chemigation or Soil Injection Systems: 2 pt/A of plant bed. *Refer to the rate table at the end of the vegetable section.	Apply by ground or air when insects first appear. Repeat at 10 days to 2 week intervals. Or apply by drip chemigation or soil injection systems. Initiate treatments immediately after transplanting or within 14 days after transplanting. Repeat at 10 days to 2 week intervals. Use a low rate for light infestations; use the highest labeled rates at shorter intervals for severe infestations.  ** Use only foliar, air or ground applications for control of pepper weevil.		
	Root Knot (except Javanese) Nematode - supplemental control	Supplemental Control - Drip Chemigation and Soil Injection Systems: 2 pt/A of plant bed. *Refer to the rate table at the end of the vegetable section.	For supplemental control of root Knot Nematodes (Meloidogyne incognita) following a labeled preplant application of a soil fumigant, initiate Vydate L treatments either at the time of transplanting or within 14 days of transplanting. Make sequential applications on a 10 to 14 day interval.		

		and must be followed as soon as possible with either sprinkler or furrow irrigation water to activate
		the Vydate L.

					the Vydate L.
	(6		NM and the Rio Grande Vall "Product Information" secti		pel)
Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Peppers, (Bell & Non-Bell)	Root Knot (except Javanese), Sting, Ring, Stubby Root and Stunt Nematodes	Transplant Water Treatment: 2 pt/A in at least 200 gal of transplant water/A. Drip Chemigation as a Supplement to Transplant Treatment: 2 pts/A in 40 to 200 gal of water/A.* Foliar Treatment as Supplement to Transplant Treatment: 2 pt/A. *Refer to the rate table at the end of the vegetable section.	Apply by ground during transplanting operation. When nematode populations are low to moderate, begin with a transplant water treatment and supplement with drip irrigation or foliar sprays by ground or air. Apply first drip irrigation or foliar spray 14 days after transplant. Repeat at 1 to 2 week intervals to control nematodes and insects.	7	<ul> <li>Do not apply more than 14 pints (1.75 gal) DuPont Vydate L per acre per season.</li> <li>Minimum retreatment interval is 7 days unless a longer interval is stated in the Application Timing and Method section.</li> <li>Do not make more than 5 post-transplant applications per season (or 6 total applications per season including a transplant application.)</li> <li>Do not apply as a transplant water treatment during periods of slow plant growth, such as when temperatures fall</li> </ul>
	Green Peach Aphid, Liriomyza spp. Leafminer (suppression), Pepper Weevil** and Thrips	Foliar Treatment: 2 pt/A Drip Chemigation or Soil Injection Systems: 2 pt/A of plant bed. *Refer to the rate table at the end of the vegetable section.	Apply by ground or air when insects first appear. Repeat at 1 to 2 week intervals. Or apply by drip chemigation or soil injection systems. Initiate treatments immediately after transplanting or within 14 days after transplanting. Repeat at 1 to 2 week intervals. Use a low rate for light infestations; use the highest labeled rates at shorter intervals for severe infestations.  ** - use only foliar, air or ground applications for control of pepper weevil.		when temperatures fall below 45°F, or crop injury may result.  • Under very high nemator populations, use of another effective soil treatment product at or before planting may be necessary. These can be followed by foliar, drip or soil injection applications of Vydate L to extend or maintain protection. Supplemental application of Vydate L should begin when nematode populations begin to recover. The timing of the first Vydate L application
	Root Knot (except Javanese) Nematode - supplemental control	Supplemental Control - Drip Chemigation and Soil Injection Systems: 2 pt/A of plant bed. *Refer to the rate table at the end of the vegetable section.	For supplemental control of root Knot Nematodes (Meloidogyne incognita) following a labeled preplant application of a soil fumigant, initiate Vydate L treatments either at the time of transplanting or within 14 days of transplanting. Make sequential applications on a 10 to 14 day interval.		will depend on the longevity of protection offered by the product applied to the soil at or before planting.  • Drip: For best results, introduce the Vydate L into the irrigation water during the middle one-third of the irrigation cycle. Adjust the flow from the injection equipment to apply the Vydate L over a period of

	30 minutes to one hour. Allow at least 24 hours between the Vydate L drip application and the next irrigation cycle. • Soil injection: Application must be made at least 2 inches deep to moist soil and must be followed as soon as possible with either sprinkler or furrow irrigation water to activate the Vydate L.
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	Peppers in ALL OTHER STATES EXCEPT THE PREVIOUSLY SPECIFIED STATES							
Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information			
Peppers, (Bell & Non-Bell)	Root Knot (except Javanese), Sting, Ring, Stubby Root and Stunt Nematodes	Transplant Water Treatment: 2 pt/A in at least 200 gal of transplant water/A. Drip Chemigation as a Supplement to Transplant Treatment: 2 to 4 pts/A in 40 to 200 gal of water /A.* Foliar Treatment as Supplement to Transplant Treatment: 2 to 4 pt/A *Refer to the rate table at the end of the vegetable section.	Apply by ground during transplanting operation. When nematode populations are low to moderate, begin with a transplant water treatment and supplement with drip irrigation or foliar sprays by ground or air. Apply first drip irrigation or foliar spray 14 days after transplant. Repeat at 1 to 2 week intervals to control nematodes and insects.	7	<ul> <li>NOT REGISTERED FOR USE IN CALIFORNIA ON NEMATODES.</li> <li>Do not apply more than 24 pt (3 gal) DuPont Vydate L per acre per season.</li> <li>Minimum retreatment interval is 7 days unless a longer interval is stated in the application Timing and Method section.</li> <li>Do not make more than 8 applications per season.</li> <li>Do not apply as a transplant water treatment during periods of slow plant growth, such as when temperatures fall below 45°F, or crop injury may result.</li> <li>Under very high nematode populations, use of another effective soil treatment product at or before planting may be necessary. These can be followed by foliar, drip or soil injection applications of Vydate L to extend or maintain protection. Supplemental applications of Vydate L should begin when nematode populations begin to recover. The timing of the first Vydate L application will depend on the longevity of protection offered by the product applied to the soil at or</li> </ul>			
	Green Peach Aphid, Liriomyza spp. Leafminer (suppression), Pepper Weevil** and Thrips	Foliar Treatment: 2 to 4 pt/A Drip Chemigation or Soil Injection Systems: 2 to 4 pt/A of plant bed. *Refer to the rate table at the end of the vegetable section.  Supplemental	Apply by ground or air when insects first appear. Repeat at 1 to 2 week intervals. Or apply by drip chemigation or soil injection systems. Initiate treatments immediately after transplanting or within 14 days after transplanting. Repeat at 1 to 2 week intervals. Use a low rate for light infestations; use the highest labeled rates at shorter intervals for severe infestations.  ** Use only foliar, air, or ground applications for control of pepper weevil.					
	(except Javanese) Nematode -	Control – Drip Chemigation and Soil Injection	root Knot Nematodes ( <i>Meloidogyne incognita</i> ) following a labeled preplant		before planting.  • Drip: For best results, introduce the Vydate L into			

supplemental control	Systems: 2 to 4 pt/A of plant bed. *Refer to the rate table at the end of the vegetable section.	application of a soil fumigant, initiate Vydate L treatments either at the time of transplanting or within 14 days of transplanting. Make sequential applications on a 10 to 14 day interval.	the irrigation water during the middle one-third of the irrigation cycle. Adjust the flow from the injection equipment to apply the Vydate L over a period of 30 minutes to one hour.
Brown Marmorated Stink Bug	1.5 to 4 pt/A use a minimum of 5 gal water/A by air and 20 gal water/A by ground.	Apply by ground or air when insect populations reach threshold. Repeat at 7 day intervals. Thorough coverage improves performance. Use of a wetting agent can improve coverage.	Allow at least 24 hours between the Vydate L drip application and the next irrigation cycle.  • Soil injection: Application must be made at least 2 inches deep to moist soil and must be followed as soon as possible with either sprinkler or furrow irrigation water to activate the Vydate L.  • Brown Marmorated Stink Bugs are very mobile pests. They may reinfest the treated area quickly. If another application is needed prior to the minimum application interval, use a different insecticide. Best results follow direct spraying of the target pest.

# SWEET POTATOES - ALL STATES (EXCEPT CA - NOT REGISTERED FOR USE IN CALIFORNIA)

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Sweet Potatoes	Root Knot (Except Javanese) and Spiral Nematodes	Preplant Soil Treatment: 2 gal/A in at least 20 gal water/A as a soil broadcast treatment; for band treatments, use proportionately less. Or In-Furrow Soil Treatment: 1 to 2 gal/A in at least 200 gal water/A in the transplant water.	Apply within one week of planting. Thoroughly incorporate 4" to 6" into the soil.  Apply during planting of slips.	_	<ul> <li>Do not apply more than 24 pt (3 gal) DuPont Vydate L per acre per season.</li> <li>Do not apply as a transplant water treatment during periods of slow plant growth, such as when temperatures fall below 45°F, or crop injury may result.</li> </ul>

### TOMATOES - (AS SPECIFIED)

Refer to the appropriate table for use directions in your state and apply DuPont Vydate L as instructed.

Tomatoes in AL, AR, DE, FL, GA, IA, IL, IN, KY, LA, MD, MI, MN, MS, NC, NJ, NY, OH, PA, SC, TN, TX (EXCEPT the Rio Grande Valley of TX as specified in the "Product Information" section of this label), VA, WI and WV

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Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Tomatoes	Root Knot (Except Javanese), Sting, Stubby Root, Stunt, and Reniform Nematodes	Drip chemigation: 2 to 4 pt/A.*	Apply at first irrigation of the field. Use 2 to 4 pt/A every 1 to 2 weeks early in the crop cycle when plants are small. As growth continues and plant roots and tops expand, increase dosage to 4 pt/A at 1 to 2 week intervals.	A Jy	<ul> <li>Do not apply more than 32 pints (4 gal) Vydate L per acre per season.</li> <li>Minimum retreatment interval is 7 days unless a longer interval is stated in the application Timing and Method section.</li> <li>Do not apply more than 7 foliar, drip, or soil injection</li> </ul>
		Soil at- plant/ transplant: 2 to 4 pt/A	Apply at the time of planting or transplanting. Incorporate the application at least 2 inches deep into the soil. For best results, follow 14 days later with foliar, drip or soil injection application(s).		<ul> <li>applications per season (or 8 total applications per season including a soil at plant/transplant application).</li> <li>Under very high nematode populations, use of another effective soil treatment product at or before planting may be</li> </ul>
		Foliar. 2 to 4 pt/A. minimum of 10 gal water/A by air *Refer to the rate table at the end of the vegetable section.	Apply by air or ground when plants become established. Repeat at 1 to 2 week intervals.		necessary. These can be followed by foliar, drip or soil injection applications of Vydate L to extend or maintain protection.  Supplemental applications
	Root Knot (except Javanese) Nematode - supplemental control	Supplemental Control  - Drip Chemigation and Soil Injection Systems: 2 to 4 pt/A of plant bed. *Refer to the rate table at the end of the vegetable section.	For supplemental control of Root Knot Nematodes (Meloidogyne incognita) following a labeled preplant application of a soil fumigant, initiate Vydate L treatments either at the time of transplanting or within 14 days of transplanting. Make sequential applications on a 10 to 14 day interval.	when nematode populations beg recover. The tim first Vydate L ap will depend on the longevity of protoffered by the proposed planting.  Drip: For best resintroduce the Vyous the irrigation was the middle one-tirrigation cycle. If from injection eduse contents ow of 30 minutes to Allow at least 24 between the Vyous application and irrigation cycle.  Soil Injection: Ap	of Vydate L should begin when nematode populations begin to recover. The timing of the first Vydate L application will depend on the longevity of protection offered by the product applied to the soil at or before planting.  • Drip: For best results, introduce the Vydate L into the irrigation water during the middle one-third of the irrigation cycle. Adjust flow
	Aphids, Colorado Potato Beetle, Liriomyza spp. Leafminers (suppression), Silverleaf Whitefly (suppression)	2 to 4 pt/A as a foliar spray; use at least 4 gal water/A for aerial applications.	Apply by ground or air when insects first appear. Repeat at 7 day intervals. Apply a low rate for light infestation; a moderate rate for heavier infestation; and the highest labeled rate for severe infestations.		from injection equipment to use contents over a period of 30 minutes to 1 hour. Allow at least 24 hours between the Vydate L drip application and the next irrigation cycle.  Soil Injection: Application must be made at least 2
	Liriomyza spp. Leafminers (suppression)	Drip Chemigation and Soil Injection	Initiate treatments either at the time of transplanting or within		inches deep to moist soil and must be followed as soon as possible with

	Systems: 2 to 4 pt/A of plant bed. *Refer to the rate table at the end of the vegetable section.	14 days following transplanting. Make sequential applications at 10 to 14 day intervals.	either sprinkler or furrow irrigation water to activate the Vydate L.  Brown Marmorated Stink Bugs are very mobile
Brown Marmorated Stink Bug	1.5 to 4 pt/A use a minimum of 5 gal water/A by air and 20 gal water/A by ground.	Apply by ground or air when insect populations reach threshold. Repeat at 7 day intervals. Thorough coverage improves performance. Use of a wetting agent can improve coverage.	Bugs are very mobile pests. They may reinfest the treated area quickly. If another application is needed prior to the minimum application interval, use a different insecticide. Best results follow direct spraying of the target pest.

# Tomatoes in ALL OTHER STATES and the Rio Grande Valley of TX (as specified in the "Product Information" section of this label) EXCEPT THE PREVIOUSLY SPECIFIED STATES

		, , , , , , , , , , , , , , , , , , , ,		Last Application	
Crop	Insect	Application Rate	Application Timing and Method	(days to harvest)	Further Use Information
Tomatoes	Root Knot (Except Javanese), Sting, Stubby Root, Stunt, and Reniform Nematodes	Soil Injection (CA only): 3 to 5 pt/A	Using an injection shank during the planting operation, apply 3 pt/A immediately adjacent to the plant row. Make a second application (side dress) at 5 pt/A 3 to 4 weeks after the initial application. If needed, make a third application (side dress) at 4 pt/A 3 to 4 weeks after the second application.	3	<ul> <li>Do not apply more than 32 pt (4 gal) Vydate L per acre per season.</li> <li>Minimum retreatment interval is 5 days unless a longer interval is stated in the application Timing and Method section.</li> <li>Do not apply more than 8 applications per season.</li> <li>Under very high nematode populations, use of another effective soil</li> </ul>
		Soil at- plant/transplant: 2 to 4 pt/A	Apply at the time of planting or transplanting. Incorporate the application at least 2 inches deep into the soil. For best results, follow 14 days later with foliar, drip or soil injection application(s).		treatment product at or before planting may be necessary. These can be followed by foliar, drip or soil injection applications of Vydate L to extend or maintain protection. Supplemental applications of Vydate L should begin
	*Refer to the rate table at the end o the vegetable section.  Foliar: 2 to 4 pt/A Minimum of 10 ga water/A by air.	*Refer to the rate table at the end of the vegetable	Apply at first irrigation of the field. Use 2 to 4 pt/A every 1 to 2 weeks early in the crop cycle when plants are small. As growth continues and plant roots and tops expand, increase dosage progressively to 8 pt/A at 1 to 2 week intervals.		when nematode populations begin to recover. The timing of the first Vydate L application will depend on the longevity of protection offered by the product applied to the soil at or before planting.  Drip: For best results, introduce the Vydate L
		Foliar: 2 to 4 pt/A. Minimum of 10 gal water/A by air.	Apply by air or ground when plants become established. Repeat at 1 to 2 week intervals.		into the irrigation water during the middle one- third of the irrigation cycle. Adjust flow from injection
	Root Knot (except Javanese) Nematode -	Supplemental Control – Drip Chemigation and Soil Injection	For supplemental control of root Knot Nematodes ( <i>Meloidogyne incognita</i> ) following a labeled		equipment to use contents over a period of 30 minutes to 1 hour. Allow at least 24 hours

	supplemental control	Systems: 2 to 4 pt/A of plant bed. *Refer to the rate table at the end of the vegetable section.	preplant application of a soil fumigant, initiate Vydate L treatments either at the time of transplanting or within 14 days of transplanting. Make sequential applications on a 10 to 14 day interval.		between the Vydate L drip application and the next irrigation cycle.  • Soil Injection: Application must be made at least 2 inches deep to moist soil and must be followed as soon as possible with either sprinkler or furrow
	Aphids, Colorado Potato Beetle, Liriomyza spp. Leafminers (suppression), Silverleaf Whitefly (suppression)	2 to 4 pt/A as a foliar spray; use at least 4 gal water/A for aerial applications.	Apply by ground or air when insects first appear. Repeat at 5 to 7 day intervals. Apply a low rate for light infestation; a moderate rate for heavier infestation; and the highest labeled rate for severe infestations.		irrigation water to activate the Vydate L.  Brown Marmorated Stink Bugs are very mobile pests. They may reinfest the treated area quickly. If another application is needed prior to the minimum application
	Brown Marmorated Stink Bug	1.5 to 4 pt/A use a minimum of 5 gal water/A by air and 20 gal water/A by ground.	Apply by ground or air when insect populations reach threshold. Repeat at 5 day intervals. Thorough coverage improves performance. Use of a wetting agent can improve coverage.		interval, use a different insecticide. Best results follow direct spraying of the target pest.
East of Rockies	Liriomyza spp. Leafminers (suppression)	Drip Chemigation and Soil Injection Systems: 2 to 4 pt/A of plant bed. *Refer to the rate table at the end of the vegetable section.	Initiate treatments either at the time of transplanting or within 14 days following transplanting. Make sequential applications at 10 to 14 day intervals.		

# YAMS (DIOSCOREA) - PUERTO RICO ONLY

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Yams (Dioscorea)	Nematodes	Foliar Treatment 2 pt/A in at least 25 gal water/A.	Foliar ground applications of DuPont Vydate L are to be used only following soil fumigation or following preplant or at-planting soil application of other contact nematicides. Apply when adequate foliage is present to absorb the product (approximately 2 months after planting). Apply at 2-week intervals.	60	<ul> <li>Do not apply more than 16 pints (2 gal) Vydate L per acre per season.</li> <li>Minimum retreatment interval is 14 days.</li> <li>Do not apply more than 8 applications per season.</li> </ul>

Rate Table for Drip Irrigation Rates of Vydate L to be Applied per 1000 Row Feet in Cucumber, Cantaloupe, Honeydew Melon, Watermelon, Pumpkin, Squash, Eggplant, Peppers, and Tomato

Bed Spacing	Linear Ft. of Bed to Equal One Acre	Vydate L 2 pts/Acre Rate/1000 Row feet	Vydate L 4 pts/Acre Rate/1000 Row Feet
36 inches	14,520 ft.	2.2 fl. oz.	4.4 fl. oz.
48 inches	10,890 ft.	2.9 fl. oz.	5.9 fl. oz.
60 inches	8,712 ft.	3.7 fl. oz.	7.4 fl. oz.
72 inches	7,260 ft.	4.4 fl. oz.	8.8 fl. oz.

# **SPECIFIC USES - FIELD CROPS**

Where not otherwise specified, apply DuPont Vydate L in sufficient water to obtain uniform coverage.

# PEPPERMINT AND SPEARMINT - ID, MI, MT, OR, WA AND WI ONLY

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Pepper- mint and Spearmint	Root Lesion, Mint Nematode	1/2 to 1 gal/A by ground or chemigation sprinkler systems. For aerial applications, use 1/2 gal/A.	Apply as mint breaks winter dormancy and begins active root growth. If needed, make a second application 3 - 4 weeks later or to regrowth that occurs in the fall. Use lower rate on coarse textured soils and muck soils to control mint and root lesion nematode. Use higher rate on fine textured soils to control mint nematode. Applications to heavy soils to control root lesion nematodes may not result in increased yields.	21	<ul> <li>Do not apply more than 16 pt (2 gal) Vydate L per acre per season.</li> <li>Minimum retreatment interval is 21 days.</li> <li>Do not make more than 2 applications per season.</li> <li>Incorporate Vydate L ground or air applications with 1/2 to 1 inch of moisture as soon as possible after application.</li> <li>Sprinkler chemigation application: Apply Vydate L by center pivot, linear move, wheel line, or solid set sprinkler irrigation systems. Use a minimum of 0.75 acre inch of water to thoroughly incorporate the Vydate L into the crop root zone. For solid set and wheel line systems, inject the appropriate amount of Vydate L during the middle of the irrigation cycle.</li> </ul>

### **TOBACCO - ALL STATES**

Crop	Insect	Application Rate	Application Timing and Method	Last Application (days to harvest)	Further Use Information
Tobacco	Root Knot (except Javanese) and Lesion Nematodes, and Flea Beetles	Soil Treatment: Row Treatment::1 gal in an 18" to 24" band in at least 20 gal water/A (12,000 row feet of tobacco).  Broadcast and Bed Treatment:1 gal/A in at least 40 gal water/A.	Apply by ground. Thoroughly incorporate 4" to 6" into the soil. Use only treated soil for the beds. Do not transplant tobacco for 48 hours after soil treatment.	_	Do not apply more than 8 pt (1 gal) Vydate L per acre per season.

# STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE**: Do not subject to temperatures below 32 degrees F. Store product in original container only. Not for use or storage in or around the home.

**PESTICIDE DISPOSAL**: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA regional Office for guidance.

#### CONTAINER HANDLING:

Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable Container" or "Refillable Container" designation.

Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 5 Gallons): Nonrefillable 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 1/4 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, (a) for plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers (Capacity Greater Than 5 Gallons): Nonrefillable 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. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, (a) for plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers (IBC) (Size or Shape Too Large to be Tipped, Rolled, or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Pressure rinse as follows: Empty the remaining product contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Insert pressure rinsing nozzle in the container, and rinse at about 40 PSI for at least 30 seconds. Drain rinsate for 10 seconds after the flow begins to drip. Pour or pump rinsate into application equipment or rinsate collection system. Then, (a) for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for Metal Containers, offer for recycling if available or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

All Refillable Containers: Refillable container. Refilling Container: Refill this container with DuPont Vydate L containing oxamyl only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. Check for leaks after refilling and before transporting. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then, (a) for plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning; if burned, stay out of smoke, or (b) for metal Containers, offer for recycling if available

or reconditioning if appropriate or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Do not transport if container is damaged or leaking. If the container is damaged, leaking or obsolete, or in the event of a major spill, fire or other emergency, contact DuPont at 1-800-441-3637, day or night.

FOR PUERTO RICO: PESTICIDES MUST BE STORED IN THEIR ORIGINAL CONTAINER. DO NOT STORE THE CONTENTS OF THIS PRODUCT IN ANY OTHER CONTAINER.

**NOTICE TO BUYER:** Purchase of this material does not confer any rights under patents of countries outside of the United States.

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#### LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read this limitation of Warranty and liability before buying or using this product. To the extent consistent with applicable law, DuPont will not be responsible for losses or damages resulting from use of this product in any manner inconsistent with this product's labeling. User assumes all risks associated with such non-directed use. If the Terms are not acceptable; return the product at once; unopened; and the purchase price will be refunded. DuPont will not be responsible for losses or damages resulting from use of this product in any manner not specifically listed on this label. User assumes all risks associated with such use.

It is impossible to eliminate all risks associated with the use of this product. Such risks arise from weather conditions, soil factors, off target movement, unconventional farming techniques, presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of DuPont. These risks can cause: ineffectiveness of the product, crop injury, or injury to non-target crops or plants. WHEN YOU BUY OR USE THIS PRODUCT, YOU AGREE TO ACCEPT THESE RISKS.

DuPont warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for the purpose stated in the Directions for use, subject to the inherent risks described above, when used in accordance with the Directions for use under normal conditions.

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