

# Specimen Label



# Milestone<sup>®</sup> VM<sup>®</sup> Plus

## Specialty Herbicide

®Trademark of Dow AgroSciences LLC

For control of herbaceous broadleaf weeds and woody plants in rangeland, permanent grass pastures (including grasses grown for hay\*), Conservation Reserve Program (CRP), forests, and on non-cropland areas including industrial sites, rights-of-way (such as roadsides, electric utility and communication transmission and distribution lines, pipelines, and railroads), fencerows, non-irrigation ditch banks, natural areas (such as wildlife management areas, wildlife openings, wildlife habitats, recreation areas, campgrounds, trailheads and trails), and grazed areas in and around these sites.

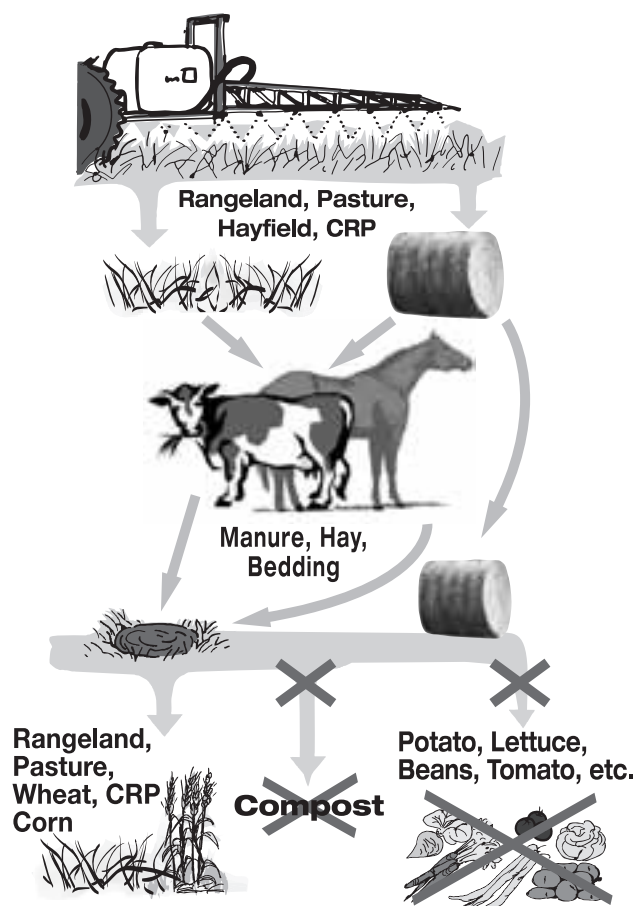
Use within sites listed above may include applications to seasonably dry wetlands (including flood plains, marshes, swamps, or bogs) and around standing water on sites such as deltas and riparian areas.

\*Hay from grass treated with Milestone VM Plus within the preceding 18-months can only be used on the farm or ranch where the product is applied unless allowed by supplemental labeling

### IMPORTANT USE PRECAUTIONS AND RESTRICTIONS TO PREVENT INJURY TO DESIRABLE PLANTS

- Carefully read the section "**Restrictions in Hay or Manure Use .**"
- It is mandatory to follow the "**Use Precautions and Restrictions**" section of this label.
- Manure and urine from animals consuming grass or hay treated with this product may contain enough aminopyralid to cause injury to sensitive broadleaf plants.
- Hay can only be used on the farm or ranch where product is applied unless allowed by supplemental labeling.
- Consult with a Dow AgroSciences representative if you do not understand the "Use Precautions and Restrictions".  
Call [1-(800) 263-1196] Customer Information Group.

### Forage and Manure Management



©Copyright 2011 Dow AgroSciences LLC

**Not For Sale, Distribution, or Use in New York State.**

<b>GROUP</b>	<b>4</b>	<b>HERBICIDE</b>
--------------	----------	------------------

**Active Ingredient:**

Triisopropanolammonium salt of 2-pyridine carboxylic acid, 4-amino-3,6-dichloro-.....	2.22%
Triethylamine salt of [(3,5,6-trichloro-2-pyridinyl)oxy]acetic acid).....	16.22%
Other Ingredients .....	81.56%
Total .....	100.0%

**Acid Equivalents:**

aminopyralid (2-pyridine carboxylic acid, 4-amino-3,6-dichloro-) – 1.15% (0.1 lb/gal)	
triclopyr (3,5,6-trichloro-2-pyridinyloxyacetic acid) – 11.63% (1 lb/gal)	

**Precautionary Statements**

**Hazards to Humans and Domestic Animals**

EPA Reg. No. 62719-572

**CAUTION**

**Harmful if Swallowed • Causes Moderate Eye Irritation**

**Avoid contact with eyes, skin or clothing.**

**Personal Protective Equipment (PPE)**

Some of the materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical resistant gloves (≥ 14 mils) such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber

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

**Engineering Controls**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the WPS (40 CFR 170.240(d)(4-6), the handler PPE requirements may be reduced or modified as specified in the WPS.

**User Safety Recommendations**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**First Aid**

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

**If in eyes:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-992-5994 for emergency medical treatment information.

**Environmental Hazards**

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**Directions for Use**

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

Read all Directions for Use carefully before applying.

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.

**Not For Sale, Distribution, or Use in New York State.**

**Entry Restrictions:** For applications on non-cropland areas, do not enter or allow others to enter the treated area until sprays have dried.

**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:

- Coveralls
- Shoes plus socks
- Protective eyewear
- Chemical-resistant gloves (≥ 14 mils) such as butyl rubber, natural rubber, neoprene rubber or nitrile rubber

**Non-Agricultural Use Requirements**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for Agricultural Pesticides (40 CFR Part 170). The WPS does not pertain to non-agricultural use on sites, such as, rangeland, permanent grass pastures, or non-cropland. See the Agricultural Use Requirements section for information where the WPS applies.

**Entry Restrictions for Non-WPS Uses:** For applications on rangeland and permanent grass pastures (not harvested for hay) and non-cropland areas, do not allow entry into areas until sprays have dried, unless applicator and other handler PPE is worn.

**Storage and Disposal**

Do not contaminate water, food, feed or fertilizer by storage or disposal. Open dumping is prohibited.

**Pesticide Storage:** If this product is exposed to subfreezing temperatures, the active ingredient may crystallize and settle out of solution. Under these conditions the product should be warmed to at least 40°F and agitated well to dissolve any crystallized active ingredient prior to use.

**Pesticide Disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Nonrefillable containers 5 gallons or less:**

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Triple rinse or pressure 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. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**Refillable containers larger than 5 gallons:**

**Container Handling:** Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of

## Storage and Disposal (Cont.)

the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

### Nonrefillable containers larger than 5 gallons:

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

Triple rinse or pressure 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. **Pressure rinse** as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

### Resistance Management Guidelines

- Development of plant populations tolerant to auxiliary growth regulator mode-of-action is usually not a problem on non-cropland sites because these sites receive infrequent pesticide applications.
- Similar looking biotypes of a given weed species occurring in a treated area may vary in their susceptibility to a herbicide. Application of a herbicide below its labeled rate may allow more tolerant weeds to survive and a shift to more tolerant biotypes within the treated area.
- Where identified, spreading of resistant weeds to other fields may be prevented by cleaning harvesting and tillage equipment before moving to other areas and by planting weed-free seed.
- Contact your extension specialist, certified crop consultant, or Dow AgroSciences representative for the latest resistance management information.

## Non-Cropland Areas, Forests, Industrial Non-Crop Areas, Rangeland, Pastures and CRP

Milestone® VM Plus specialty herbicide controls broadleaf weeds and woody plants in rangeland, permanent grass pastures (including grasses grown for hay\*), Conservation Reserve Program (CRP), forests, and on non-cropland areas, including invasive and noxious weeds on forests and non-cropland areas including industrial sites, rights-of-way (including roadsides, electric utility and communication transmission and distribution lines, pipelines, and railroads), non-irrigation ditch banks, natural areas (including wildlife management areas, wildlife openings, wildlife habitats, recreation areas, campgrounds, trailheads and trails), and grazed areas in and around these sites without injury to most grasses.

**\*Hay from grass treated with Milestone VM Plus within the preceding 18-months can only be used on the farm or ranch where the product is applied unless allowed by supplemental labeling**

Use within sites listed above may include applications to seasonably dry wetlands (including flood plains, marshes, swamps, or bogs) and around standing water on sites such as deltas and riparian areas.

### Use Precautions and Restrictions

**Consult with a Dow AgroSciences representative if you do not understand the "Use Precautions and Restrictions." Call (1-800-263-1196) for more information.**

- **Do not use grasses treated with Milestone VM Plus in the preceding 18-months for hay intended for export outside the United States.**

- **Hay from areas treated with Milestone VM Plus in the preceding 18-months CAN NOT be distributed or made available for sale off the farm or ranch where harvested unless allowed by supplemental labeling.**
- **Hay from areas treated with Milestone VM Plus in the preceding 18-months CAN NOT be used for silage, haylage, baylage and green chop unless allowed by supplemental labeling.**
- **Do not move hay made from grass treated with Milestone VM Plus within the preceding 18-months off farm unless allowed by supplemental labeling.**
- **Do not use hay or straw from areas treated with Milestone VM Plus within the preceding 18-months or manure from animals feeding on hay treated with Milestone in compost.**
- **Do not use grasses treated with Milestone VM Plus in the preceding 18-months for seed production.**
  - It is permissible to treat non-irrigation ditch banks, seasonally dry wetlands (such as flood plains, deltas, marshes, swamps, or bogs) and transitional areas between upland and lowland sites only when dry.
  - Minimize overspray to open water when treating target vegetation in and around non-flowing, quiescent or transient water. When making applications to control unwanted plants on banks or shorelines of flowing water, minimize overspray to open water. **Note:** Consult local public water control authorities before applying this product in and around public water. Permits may be required to treat such areas.
  - **Avoiding Injury to Non-Target Plants:** Do not aerially apply Milestone VM Plus within 50 feet of a border downwind (in direction of wind movement), or allow spray drift to come in contact with, any broadleaf crop or other desirable broadleaf plants, including, but not limited to, alfalfa, cotton, dry beans, flowers, grapes, lettuce, potatoes, radishes, soybeans, sugar beets, sunflowers, tobacco, tomatoes or other broadleaf or vegetable crop, fruit trees, ornamental plants, or soil where sensitive crops are growing or will be planted. Avoid application under conditions that may allow spray drift because very small quantities of spray may seriously injure susceptible crops. Follow Precautions for Avoiding Spray Drift and Spray Drift Advisory under General Mixing and Application Instructions to minimize the potential for spray drift.
  - **Milestone VM Plus is highly active against many broadleaf plant species.** Do not use this product on areas where loss of desirable broadleaf plants, including legumes, cannot be tolerated.
  - Do not apply this product on lawns, turf, ornamental plantings, urban walkways, driveways, tennis courts, golf courses, athletic fields, commercial sod operations, or other high-maintenance, fine turfgrass areas, or similar areas.
  - **Do not use this product for impregnation on dry fertilizer, unless specified in a Dow AgroSciences state specific product bulletin.**
  - **Chemigation:** Do not apply this product through any type of irrigation system.
  - **Do not contaminate water intended for irrigation or domestic purposes.** Do not treat inside banks or bottoms of irrigation ditches, either dry or containing water, or other channels that carry water that may be used for irrigation or domestic purposes.
  - Untreated trees can occasionally be affected by root uptake of Milestone VM Plus through movement into the soil or by excretion of the product from the roots of nearby treated trees. Do not apply Milestone VM Plus within the root zone of desirable trees.
  - **Crop Rotation:** Do not rotate non-cropland to cropland for one year following an application of Milestone VM Plus. Do not plant a broadleaf crop until an adequately sensitive field bioassay shows that the level of aminopyralid present in the soil will not adversely affect that broadleaf crop.
  - Applications made during periods of intense rainfall, to soils saturated with water, surfaces paved with materials such as asphalt or concrete, or soils through which rainfall will not readily penetrate may result in runoff and movement of Milestone VM Plus. Injury to crops may result if treated soil and/or runoff water containing Milestone VM Plus is washed, or moved onto land used to produce crops. Exposure to Milestone VM Plus may injure or kill susceptible crops and other plants, such as grapes, soybeans, tobacco, sensitive ornamentals. Do not treat frozen soil where runoff could damage sensitive plants.
  - **Seeding grasses:**
    - **Preemergence:** In general, Milestone VM Plus may be applied in the spring or early summer, depending on the target weed species, and grass planted after 4 months when conditions are favorable for



grass establishment. With fall applications, do not plant grasses the following spring. Do not overseed ryegrass for 4 months after treatment.

- **Postemergence:** During the season of establishment, Milestone VM Plus should be applied only after perennial grasses are well established (have developed a secondary root system and are vigorous. Most perennial grasses are tolerant to Milestone VM Plus at this stage of development. Milestone VM Plus may suppress certain established grasses, such as smooth bromegrass (*Bromus inermis*), especially when plants are stressed by adverse environmental conditions. Plants should recover from this transient suppression with the onset of environmental conditions favorable to grass growth and upon release from weed competition.
- **Seeding Legumes or Wildflowers:** Do not plant legumes or wildflowers until a soil bioassay has been conducted to determine if residues of Milestone VM Plus remaining in the soil will adversely affect establishment of legumes and wildflowers.
- **Field Bioassay Instructions:** In a representative section of an area previously treated with this product, plant short test rows of the intended species across the original direction of application in a manner to sample variability in field conditions such as soil texture, soil organic matter, soil pH, rainfall pattern or drainage. The field bioassay can be initiated at any time after application and before the planting of the intended species. Observe the seeded species for symptoms of herbicidal activity, such as poor stand (effect on seed germination), chlorosis (yellowing), necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the intended seeded species may be planted. If herbicidal activity is observed, do not plant the field to the intended seeded species.
- **Restrictions in Hay or Manure Use:**
  - ◆ Do not use treated plant residues, including hay or straw from areas treated within the preceding 18-months, in compost, mulch or mushroom spawn.
  - ◆ Do not use manure from animals that have grazed forage or eaten hay harvested from treated areas within the previous 3 days, in compost, mulch or mushroom spawn.
  - ◆ Do not spread manure from animals that have grazed or consumed forage or hay from treated areas within the previous 3 days on land used for growing susceptible broadleaf crops.
  - ◆ Manure from animals that have grazed forage or hay harvested from Milestone VM Plus-treated areas within the previous 3 days may only be spread on pasture grasses, grass grown for seed, wheat and corn.
- Do not plant a broadleaf crop (including soybeans, sunflower, tobacco, vegetables, field beans, peanuts, and potatoes) in fields treated with manure from animals that have grazed forage or eaten hay harvested from aminopyralid-treated areas until an adequately sensitive field bioassay is conducted to determine that the aminopyralid concentration in the soil is at level that is not injurious to the crop to be planted.
  - ◆ Do not plant a broadleaf crop in fields treated in the previous year with manure from animals that have grazed forage or hay harvested from Milestone VM Plus-treated areas until an adequately sensitive field bioassay is conducted to determine that the Milestone VM Plus residues in the soil is at a level that is not injurious to the crop to be planted.
  - ◆ To promote herbicide decomposition, plant residues should be evenly incorporated in the surface soil or burned. Breakdown of Milestone VM Plus in plant residues or manure is more rapid under warm, moist soil conditions and may be accelerated by supplemental irrigation.
- **Grazing and Haying Restrictions:** There are no restrictions on grazing or hay harvest following application of Milestone VM Plus at labeled rates. Do not transfer grazing animals from areas treated with Milestone VM Plus to areas where sensitive broadleaf crops occur without first allowing 3 days of grazing on an untreated pasture. Otherwise, urine and manure may contain enough Milestone VM Plus to cause injury to broadleaf plants.
- **Grazing Poisonous Plants:** Herbicide application may increase palatability of certain poisonous plants. Do not graze treated areas until poisonous plants are dry and no longer palatable to livestock.
- **Maximum Application Rate:** On non-cropland areas, do not apply more than 9 pints per acre of Milestone VM Plus (0.11 lb acid equivalent aminopyralid and 1.12 lb acid equivalent triclopyr) per year. The total amount of Milestone VM Plus applied broadcast, as a re-treatment, and/or spot treatment per year, must not exceed 9 pints per acre. If products containing the same active ingredient are tank mixed, do not exceed the maximum allowable active ingredient rate per acre per application per year.

## Application Methods

### (Broadcast Equipment)

**Ground Broadcast Application:** Apply the labeled rate of Milestone VM Plus as a coarse low-pressure spray. Spray volume

should be sufficient to uniformly cover foliage. Higher volumes (greater than 10 gallons per acre) generally provide better coverage and better control, particularly in dense and/or tall foliage canopies situations. To enhance foliage wetting and coverage, an approved non-ionic agricultural surfactant may be added to the spray mixture as recommended by the surfactant manufacturer.

Do not apply this product with mist blower systems that deliver very fine spray droplets. Use of mist blower equipment can reduce weed control and increase spray drift potential.

**Aerial Broadcast Application:** Apply the labeled rate of Milestone VM Plus as a coarse low-pressure spray. Spray volume should be sufficient to uniformly cover foliage. Increase spray volume to ensure thorough and uniform coverage when target vegetation is tall and/or dense. Spray volumes greater than 2 gallons per acre generally provide better coverage and better control, particularly when the foliage canopy is dense and/or tall. To enhance foliage wetting and coverage, an approved non-ionic agricultural surfactant may be added to the spray mixture as recommended by the surfactant manufacturer. Also see Precautions for Avoiding spray Drift and Aerial Spray Drift Advisory.

### (Hand-Held Equipment)

**High-Volume Foliar Application:** High volume foliar applications may be applied at rates equivalent to a maximum of 9 pints per acre per annual growing season. Use sufficient spray volume to thoroughly and uniformly wet foliage and stems. To ensure thorough wetting of high volume treatments, a high quality non-ionic agricultural surfactant such as a non-ionic or methylated seed oil may be added to the spray mixture as recommended by the surfactant manufacturer. Multiple applications may be made, but the total amount of Milestone VM Plus applied must not exceed 9 pints per acre per year.

### Low Volume Foliar Treatment

To control susceptible woody plants, apply up to 9 pints of Milestone VM Plus in 10 to 100 gallons of finished spray depending on plant density. The spray concentration of Milestone VM Plus and total spray volume per acre should be adjusted according to the size and density of target woody plants and kind of spray equipment used. With low volume sprays, use sufficient spray volume to obtain uniform coverage of target plants including the surfaces of all foliage, stems, and root collars (see General Use Precautions and Restrictions). For best results, a surfactant such as a non-ionic or methylated seed oil should be added to all spray mixtures. Match equipment and delivery rate of spray nozzles to height and density of woody plants. When treating tall, dense brush, a hose and spray gun with spray tips that deliver up to 2 gallons per minute at 40 to 60 psi may be required. Backpack or other types of specialized spray equipment with spray tips that deliver less than 1 gallon of spray per minute may be appropriate for short, low to moderate density brush.

**Spot Application:** Spot applications may be made at rates equivalent to the broadcast-applied rate of 4 to a maximum of 9 pints per acre per annual growing season. Spray volume should be sufficient to thoroughly and uniformly wet weed foliage. A high quality non-ionic agricultural surfactant may be added to the spray mixture as recommended by the surfactant manufacturer. Repeat treatments may be made, but the total amount of Milestone VM Plus applied must not exceed 9 pints per acre per year. To prevent misapplication, spot treatments should be applied with a calibrated boom, boomless spray system, hand-held, or backpack sprayers.

Spot applications may be made at a rate of up to 0.22 lb acid equivalent aminopyralid (9 quarts of Milestone VM Plus) per acre; however, not more than 50% of an acre may be treated. Do not apply more than a total of 0.11 lb acid equivalent aminopyralid per acre (9 pints per acre of Milestone VM Plus) per annual growing season as a result of broadcast, spot or repeat applications.

## Aerial Application

Aerial sprays should be applied using suitable drift control. (See Precautions for Avoiding Spray Drift and Aerial Drift Reduction Advisory). Add an agriculturally labeled non-ionic surfactant.

## Herbaceous Broadleaf Weed and Woody Plant Control

### Rangeland, Permanent Grass Pastures and CRP Acres

Milestone VM Plus may be applied to rangeland, permanent pasture or CRP acres seeded to permanent grasses as an aerial or ground broadcast treatment, as a spot application, or as a high or low volume foliar application (see Application Methods section) to control susceptible broadleaf weeds, including invasive and noxious weeds (see Broadleaf Weeds Controlled section). Milestone VM Plus may be applied alone or in tank mix combinations with labeled rates of other herbicides provided

that: (1) the tank mix product is labeled for the timing and method of application for the use site to be treated and (2) tank mixing is not prohibited by the label of the registered tank mixed products. When tank mixing, follow the use directions on the labeling of each tank mix partner. Follow Mixing Instructions under the General Mixing and Application Instructions section.

**Do not use Milestone VM Plus if loss of legumes species or other broadleaf species cannot be tolerated.**

During the season of establishment, Milestone VM Plus should be applied only after perennial grasses are well established (have developed a good secondary root system and show good vigor). Most perennial grasses are tolerant to Milestone VM Plus at this stage of development. Only Smooth Brome grass (*Bromus inermis*) has been identified to be suppressed by Milestone VM Plus, this appears to occur under adverse environmental conditions. Plants should recover from this transient suppression with the onset of environmental conditions favorable to grass growth and upon release from weed competition.

**Non-Cropland, Forests, and Industrial Non-Crop Areas**

Milestone VM Plus may be applied to non-cropland, forests, and industrial non-crop areas as an aerial or ground broadcast application, as a spot application, or as a high volume foliar application (see Application Methods section) to control herbaceous broadleaf weeds and woody plants. Milestone VM Plus may be applied alone or in tank-mix combinations with labeled rates of other herbicides provided: (1) the tank mix product is labeled for the timing and method of application for the use site to be treated and (2) mixing is not prohibited by the label of the registered tank mixed products. Use as directed in the Directions of Use section of the tank-mix partner. Follow Mixing Instructions under the General Mixing and Application Instructions section below.

**Forest Management Applications**

For best control from broadcast applications of Milestone VM Plus, use a spray volume which will provide thorough plant coverage. Recommended spray volumes are usually 10 to 25 gallons per acre by air or 10 to 100 gallons per acre by ground. To improve spray coverage of spray volumes less than 50 gallons per acre, add an agriculturally labeled non-ionic surfactant. Application systems should be used to prevent hazardous drift to off-target sites. Nozzles or additives that produce larger droplets of spray may require higher spray volumes.

**Forest Site Preparation (Not for Conifer Release)**

Use up to 9 pints of Milestone VM Plus and apply in a total spray volume of 10 to 30 gallons per acre. Use a non-ionic agricultural surfactant for all foliar applications. Tank mixtures with other herbicides registered for forest use may be necessary to control woody brush if brush is not sensitive to the use rates of this product. When tank mixtures of herbicides are used for forest site preparation, labels for all products in the mixture must be followed and the longest recommended waiting period before planting observed.

**Directed Spray Applications for Conifer Release**

To release conifers from competing hardwoods such as red maple, sugar maple, striped maple, sweetgum, red and white oaks, ash, hickory, alder, birch, aspen, and pin cherry, mix 9 pints Milestone VM Plus in enough water to make 100 gallons of spray mixture. To improve spray coverage, add an agriculturally labeled non-ionic surfactant. The spray mixture should be directed onto foliage of competitive hardwoods using knapsack or backpack sprayers with flat fan nozzles or equivalent any time after hardwoods have reached full leaf size, but before autumn coloration. The majority of treated hardwoods should be less than 6 feet in height to ensure adequate spray coverage. Care should be taken to direct spray away from contact with conifer foliage, particularly foliage of desirable pines.

**Note:** Over-the-top spray applications can severely injure or kill some species such as redbud and locust.

**Cut-Stump Treatment**

To control unwanted trees of hardwood species such as elm, maple, oak and conifers, apply Milestone VM Plus, undiluted, by spraying or painting the cut surfaces of freshly cut stumps and stubs as soon as possible after cutting, if possible within about 5 minutes; waiting longer will reduce efficacy due to loss of turgor pressure (suction) in the cut stump. The cambium area next to the bark is the most vital area to wet.

**With Tree Injector Method**

Apply by injecting 1 milliliter of undiluted Milestone VM Plus through the bark at intervals of 3 to 4 inches between centers of the injector wound. The injections should completely surround the tree at any convenient height. **Note: No Worker Protection Standard worker entry restrictions or worker notification requirements apply when this product is injected directly into plants.**

**With Hack and Squirt Method**

Make cuts around the tree trunk at a convenient height with a hatchet or similar equipment so that the cuts overlap slightly and make a continuous circle around the trunk. Spray 1 milliliter of undiluted Milestone VM Plus into the pocket created between the bark and the inner stem/trunk by each cut.

**With Frill or Girdle Method**

Make a single girdle through the bark completely around the tree at a convenient height. The frill should allow for the herbicide to remain next to the inner stem and absorb into the plant. Wet the cut surface with undiluted solution.

Both of the above methods may be used successfully at any season except during periods of heavy sap flow of certain species - for example, maples.

**Herbaceous Broadleaf Weed and Woody Plant Management Practices**

Milestone VM Plus may be applied postemergence as a broadcast spray or as a spot application to control broadleaf weeds listed on this label; weeds other than those listed may also be controlled by this herbicide. Postemergence applications should be made before bud stage or early flowering, unless otherwise specified. When a rate range is given, use a higher rate in the range to control weeds at advanced growth stages or under less than favorable growing conditions (such as drought stress). Best weed control results are obtained when spray volume is sufficient to provide uniform coverage of treated plants. For optimum uptake and translocation of the herbicide, avoid mowing, haying, shredding, burning or soil disturbance in treated areas for at least 7 days following application.

Milestone VM Plus also provides preemergence control of germinating seeds or emerging seedlings of susceptible broadleaf weeds following application.

Milestone VM Plus can provide long-term control of weeds. The length of control is dependent upon the application rate, condition and growth stage of target weeds, environmental conditions at and following application, and the density and vigor of competing desirable vegetation. Long-term broadleaf weed control is most effective where grasses and other desirable vegetation is allowed to recover from adverse environmental conditions (such as drought) and compete with susceptible broadleaf weeds.

Milestone VM Plus can be an important component of integrated vegetation management programs designed to renovate or restore desired non-cropland plant communities. To maximize and extend the benefits of weed control provided by Milestone VM Plus, it is important that other vegetation management practices, including mowing, fertilization, haying, etc., be used in appropriate sequences and combinations to further alleviate the adverse effects of weeds on desirable plant species and to promote development of desired non-cropland plant communities. Natural resources specialists with federal and state government agencies can provide guidance on best management practices and development of integrated vegetation management programs.

**Herbaceous Broadleaf Weeds Controlled**

The following weeds will be controlled with the rates of Milestone VM Plus indicated in Table 1 below. For best results, most weeds should be treated when they are actively growing and under conditions favorable for growth. Use a higher rate in the rate range when growing conditions are less than favorable or when weed foliage is tall and dense. Milestone VM Plus also provides preemergence control of germinating seeds and control of emerged seedlings of susceptible broadleaf weeds following application.

**Table 1: Broadleaf Weeds Controlled (Rate Range 4-6 pints/acre)**

Common Name	Scientific Name	Life Cycle	Plant Family
amaranth, spiny	<i>Amaranthus spinosus</i>	annual	Amaranthaceae
bedstraw	<i>Galium spp.</i>	perennial	Rubiaceae
beggarticks	<i>Bidens spp.</i>	annual	Asteraceae
bindweed, field	<i>Convolvulus arvensis</i>	perennial	Convolvulaceae
broomweed, annual	<i>Amphiachyris dracunculoides</i>	annual	Asteraceae
burdock, common*, **	<i>Arctium minus</i>	biennial	Asteraceae
buttercup, hairy*	<i>Ranunculus sardous</i>	annual	Ranunculaceae
buttercup, tall*, **	<i>Ranunculus acris</i>	perennial	Ranunculaceae
camelthorn	<i>Alhagi pseudalhagi</i>	perennial	Fabaceae
chamomile, scentless	<i>Matricaria inodora</i>	annual	Asteraceae
chickweed	<i>Stellaria media</i>	annual	Caryophyllaceae
chicory*	<i>Cichorium intybus</i>	perennial	Asteraceae
cinquefoil, sulfur (1)*, **	<i>Potentilla recta</i>	perennial	Rosaceae
clover	<i>Trifolium spp.</i>	perennial	Fabaceae
cocklebur	<i>Xanthium strumarium</i>	annual	Asteraceae
croton, tropic	<i>Croton glandulosus</i>	annual	Euphorbiaceae
crownvetch	<i>Securigera varia</i>	perennial	Fabaceae
cudweed, purple	<i>Gamochaeta purpurea</i>	annual	Asteraceae
daisy, oxeye (1)*, **	<i>Leucanthemum vulgare</i>	perennial	Asteraceae
dandelion, common	<i>Taraxacum officinale</i>	perennial	Asteraceae
dock, curly*	<i>Rumex crispus</i>	perennial	Polygonaceae
evening primrose, cutleaf	<i>Oenothera laciniata</i>	annual	Onagraceae
fiddleneck, common	<i>Amsinckia intermedia</i>	annual	Boraginaceae
fireweed	<i>Epilobium angustifolium</i>	perennial	Onagraceae
fleabane, flax-leaf or hairy	<i>Conyza bonariensis</i>	annual	Asteraceae
hawkweed, orange (2)*, **	<i>Hieracium aurantiacum</i>	perennial	Asteraceae
hawkweed, yellow (2)*, **	<i>Hieracium caespitosum</i>	perennial	Asteraceae
henbit*	<i>Lamium amplexicaule</i>	annual/biennial	Lamiaceae
hogweed, giant	<i>Heracleum mantegazzianum</i>	perennial	Apiacea
horsenettle, Carolina**	<i>Solanum carolinense</i>	perennial	Solanaceae
horseweed (marestail)	<i>Conyza canadensis</i>	annual	Asteraceae
ironweed, tall	<i>Vernonia gigantea</i>	perennial	Asteraceae
ironweed, western	<i>Vernonia baldwinii</i>	perennial	Asteraceae
knawweed, diffuse (3)*, **	<i>Centaurea diffusa</i>	biennial/perennial	Asteraceae
knawweed, Russian (4)*, **	<i>Acroptilon repens</i>	perennial	Asteraceae
knawweed, spotted (3)*, **	<i>Centaurea stoebe</i>	biennial/ perennial	Asteraceae
knawweeds	<i>Centaurea spp.</i>	biennial/ perennial	Asteraceae
knotweeds, Japanese, bohemian	<i>Reynoutria japonica</i>	perennial	Polygonaceae
kudzu*, **	<i>Pueraria montana</i>	perennial	Fabaceae
lady's thumb*	<i>Polygonum persicaria</i>	annual	Polygonaceae
lambsquarters	<i>Chenopodium album</i>	annual	Chenopodiaceae
lespedeza, annual	<i>Lespedeza striata</i>	annual	Fabaceae
licorice, wild	<i>Glycyrrhiza lepidota</i>	Perennial	Fabaceae
loosestrife, purple	<i>Lythrum salicaria</i>	Perennial	Lythraceae
marshelder, annual	<i>Iva annua</i>	annual	Asteraceae
mayweed, scentless*	<i>Tripleurospermum perforata</i>	annual	Asteraceae
mayweed, stinking*, **	<i>Anthemis cotula</i>	annual	Asteraceae
medic, black*	<i>Medicago lupulina</i>	perennial	Fabaceae
mullein	<i>Verbascum spp.</i>	biennial	Scrophulariaceae
nightshade, silverleaf	<i>Solanum elaeagnifolium</i>	perennial	Solanaceae
ox tongue, bristly	<i>Picris echioides</i>	biennial	Asteraceae
pea, Swainson	<i>Sphaerophysa salsula</i>	perennial	Fabaceae
povertyweed	<i>Iva axillaris</i>	perennial	Asteraceae
plantain spp.	<i>Plantago spp.</i>	perennial	Plantaginaceae
ragweed, common**	<i>Ambrosia artemisiifolia</i>	annual	Asteraceae
ragweed, western	<i>Ambrosia psilostachya</i>	perennial	Asteraceae
ragwort, tansy*, **	<i>Senecio jacobaea</i>	perennial	Asteraceae
rush skeletonweed	<i>Chondrilla juncea</i>	perennial	Asteraceae



**Table 1: Broadleaf Weeds Controlled (Rate Range 4-6 pints/acre) (Cont.)**

Common Name	Scientific Name	Life Cycle	Plant Family
sicklepod	<i>Cassia obtusifolia</i>	perennial	Fabaceae
smartweed, Pennsylvania	<i>Polygonum pensylvanicum</i>	annual	Polygonaceae
sneezeweed, bitter	<i>Helenium amarum</i>	annual	Asteraceae
soda apple, tropical (5)*, **	<i>Solanum viarum</i>	perennial	Solanaceae
sowthistle, perennial*, **	<i>Sonchus arvensis</i>	perennial	Asteraceae
sowthistle, annual	<i>Sonchus oleraceae</i>	Annual	Asteraceae
spanishneedles	<i>Bidens bipinnata</i>	annual	Asteraceae
St. Johnswort, common	<i>Hypericum perforatum</i>	perennial	Clusiaceae
star thistle, yellow (6)*, **	<i>Centaurea solstitialis</i>	annual	Asteraceae
starthistle, purple (6) *,**	<i>Centaurea calcitrapa</i>	biennial	Asteraceae
star-thistle, Malta (6) *,**	<i>Centaurea melitensis</i>	annual	Asteraceae
stiltgrass, Japanese	<i>Microstegium vimineum</i>	annual	Poacea
sunflower, common	<i>Helianthus annuus</i>	annual	Asteraceae
teasel	<i>Dipsacus spp.</i>	biennial	Dipsacaceae
teasel, fuller's*	<i>Dipsacus sativus</i>	biennial	Dipsacaceae
thistle, artichoke	<i>Cynara cardunculus</i>	perennial	Asteraceae
thistle, blessed milk	<i>Silybum marianum</i>	biennial	Asteraceae
thistle, bull (7)*, **	<i>Cirsium vulgare</i>	biennial	Asteraceae
thistle, Canada (8)*, **	<i>Cirsium arvense</i>	perennial	Asteraceae
thistle, Italian	<i>Carduus pycnocephalus</i>	annual	Asteraceae
thistle, musk (7)*, **	<i>Carduus nutans</i>	biennial	Asteraceae
thistle, plumeless (7)*, **	<i>Carduus acanthoides</i>	biennial	Asteraceae
thistle, Scotch*, **	<i>Onopordum acanthium</i>	biennial	Asteraceae
thistle, woolly distaff	<i>Carthamus lanatus</i>	annual	Asteraceae
Tree of heaven	<i>Ailanthus altissima</i>	perennial	Simaroubaceae
vetch	<i>Vicia spp.</i>	perennial	Fabaceae
wild carrot	<i>Daucus carota</i>	biennial	Apiaceae
willoweed, panicle	<i>Epilobium brachycarpum</i>	annual	Onagraceae
wormwood, absinth *, **	<i>Artemisia absinthium</i>	perennial	Asteraceae
yarrow, common	<i>Achillea millefolium</i>	perennial	Asteraceae

\*Invasive plants are introduced species that are indicated to be invasive in the USDA-NRCS, PLANTS Database (<http://plants.usda.gov/index.html>).

\*\*Plants designated as noxious weeds in at least one state (PLANTS Database, USDA-NRCS, <http://plants.usda.gov/index.html>).

- Sulfur cinquefoil or oxeye daisy:** Apply Milestone VM Plus at 5 to 8 pints per acre to plants in the prebud stage of development.
- Orange or yellow hawkweeds:** Apply Milestone VM Plus at 5 to 8 pints per acre to plants in the bolting stage of development.
- Diffuse and spotted knapweeds:** Apply Milestone VM Plus at 6 to 9 pints per acre when plants are actively growing with the optimum time of application occurring from rosette to the bolting stages of development or in the fall.
- Russian knapweed:** Apply Milestone VM Plus at 5 to 8 pints per acre to plants in the spring and summer that are in the bud to flowering stage and to dormant plants in the fall.
- Tropical soda apple:** Apply Milestone VM Plus at 6 to 9 pints per acre at any growth stage, but application at flowering will reduce seed production potential.
- Yellow starthistle:** Apply Milestone VM Plus at 4 to 6 pints per acre to plants at the rosette through bolting growth stages.
- Bull, musk and plumeless thistles:** Apply Milestone VM Plus at 4 to 6 pints per acre in the spring and early summer to rosette or bolting plants or in the fall to seedlings and rosettes. Apply at 5 to 6 pints when plants are at the late bolt through early flowering growth stages.
- Canada thistle:** Apply Milestone VM Plus at 8 to 9 pints per acre either in the spring after all plants have fully emerged (some may be budding) until the oldest plants are in full flower stage. Use the higher rate when applying to the flower stage. Applications are also effective in the fall before a killing frost.

Invasive knotweeds: Japanese, Bohemian, giant knotweeds: Apply Milestone VM Plus at 8-9 pints per acre broadcast using high volume per acre (100 gallons per acre) or apply as a spot treatment using the spot treatment rate (see Spot Treatment section). Optimum results for suppression of plant growth are obtained when applications are made to plants that are about 3 to 4 feet in height in early summer.

Multiple applications/retreatments will be necessary for control of resprouts. the total amount of Milestone VM Plus applied broadcast, as a re-treatment, and/or spot treatment cannot exceed 9 pints per acre per year.

Purple loosestrife: For optimum control apply Milestone VM Plus at 8-9 pints per acre plus 1 pt to 1 qt of 2,4-D amine. Spot treatments may also be made by applying Milestone VM Plus at the Spot treatment rate (see Spot Treatment section of the label) with or without the addition of 2,4-D.

### Woody Plants Controlled

The following woody plants will be controlled or partially controlled with Milestone VM Plus at 6 to 9 pints/acre. For best results, woody plants should be treated when they are actively growing and under conditions favorable for growth. Use a higher rate with plants listed as Partial Control, when growing conditions are less than favorable, or when weed foliage is tall and dense.

**Table 2: Woody Plants Controlled or Partially Controlled**

Common Name	Scientific Name	Plant Family
arrowwood	<i>Viburnum spp.</i>	Viburnum
aspen	<i>Populus spp.</i>	Salicaceae
Australian pine	<i>Pinus nigra</i>	Pinaceae
blackberry	<i>Rubus spp</i>	Rosaceae
ceanothus	<i>Ceanothus spp.</i>	Rhanaceae
choke cherry	<i>Prunus virginiana</i>	Rosaceae
cottonwood	<i>Populus spp.</i>	Salicaceae
Kudzu	<i>Pueraria lobata</i>	Fabaceae

**Table 2: Woody Plants Controlled or Partially Controlled (Cont.)**

Common Name	Scientific Name	Plant Family
locust	<i>Robinia spp.</i>	Fabaceae
locust, black	<i>Robinia pseudoacacia</i>	Fabaceae
locust, honey	<i>Gleditsia triacanthos</i>	Fabaceae
mimosa	<i>Albizia julibrissin</i>	Fabaceae
poison ivy	<i>Toxicodendron radicans</i>	Anacardiaceae
poison oak	<i>Toxicodendron diversilobum</i>	Anacardiaceae
poplar	<i>Populus spp.</i>	Salicaceae
poplar, tulip	<i>Liriodendron tulipera</i>	Salicaceae
redbud	<i>Cercis spp.</i>	Fabaceae
Scotch broom	<i>Cytisus scoparius</i>	Fabaceae
sumac	<i>Rhus spp.</i>	Anacardiaceae
rose	<i>Rosa spp.</i>	Rosaceae
wisteria	<i>Wisteria brachybotris</i>	Fabaceae

**Partial Control**

Common Name	Scientific Name	Plant Family
Ash	<i>Fraxinus spp.</i>	Oleaceae
bear clover (bearmat)	<i>Chamaebatia foliolosa</i>	Rosaceae
beech	<i>Fagus spp.</i>	Fagaceae
birch	<i>Betula dpp.</i>	Betulaceae
blackgum	<i>Nyssa sylvatica</i>	Cornaceae
Brazilian pepper	<i>Schinus terebinthifolius</i>	Anacardiaceae
cascara	<i>Rhamnus purshiana</i>	Rhamnaceae
chinquapin	<i>Castanea spp.</i>	Fagaceae
Douglas-fir	<i>Pseudotsuga spp.</i>	Pinacea
dogwood	<i>Cornus drummondii</i>	Cornaceae
elderberry	<i>Sambucus spp.</i>	Adoxaceae
elm	<i>Ulmus spp.</i>	Ulmaceae
gallberry	<i>Ilex glabra</i>	Aquifoliaceae
hazel	<i>Corylus</i>	Betulaceae
hornbean	<i>Carpinus caroliniana</i>	Betulaceae
madrone	<i>Arbutus spp.</i>	Ericaceae
maple	<i>Acer spp.</i>	Sapindaceae
Mulberry	<i>Morus</i>	Moraceae
oak	<i>Quercus</i>	Fagaceae
persimmon	<i>Diospyros</i>	Ebenaceae
pine	<i>Pinus spp.</i>	Pinaceae
salt-bush	<i>Baccharis spp.</i>	Asteraceae
salt cedar	<i>Tamarix spp.</i>	Tamaricaceae
salmonberry	<i>Rubus spectabilis</i>	Rosaceae
sassafras	<i>Sassafras albidum</i>	Lauraceae
sweetbay magnolia	<i>Magnolia virginiana</i>	Magnoliaceae
sweetgum	<i>Liquidambar spp.</i>	Altingiaceae
sycamore	<i>Platanus occidentalis</i>	Platanaceae
tanoak	<i>Lithocarpus densiflorus</i>	Fagaceae
thimbleberry	<i>Rubus parviflorus</i>	Rosaceae
waxmyrtle	<i>Myrica cerifera</i>	Myricaceae
western hemlock	<i>Tsuga heterophylla</i>	Pinaceae
willow	<i>Salix spp.</i>	Salicaceae
winged elm	<i>Ulmus alata</i>	Ulmaceae

**Partial control:** a sequential application or tank mixes with additional Garlon® 3A, Accord® or other herbicides may be necessary for complete control.

**General Mixing and Application Instructions**

**Mixing Instructions**

**Mixing with Water:** To prepare the spray, add about half the required amount of water in the spray tank. Then, with agitation, add Milestone VM Plus and other registered tank mix herbicides. Finally, with continued agitation, add the rest of the water and additives such as surfactants or drift reduction and deposition aids.

**Tank Mixing with Other Herbicides:** Milestone VM Plus at rates of up to 9 pints per acre may be mixed with labeled rates of other herbicides registered for application on listed sites to broaden the spectrum of weeds controlled or to improve control of certain weeds. Milestone VM Plus may be applied in tank-mix combination with labeled rates of other herbicides provided: (1) the product tank-mixed with Milestone VM Plus is labeled for the timing and method of application for the use site to be treated; (2) mixing is not prohibited by the label of the product to be tank mixed with Milestone VM Plus; and (3) Milestone VM Plus is compatible with the product to be included in a tank-mix. Use as directed in the Directions for Use section of the tank mix partner.

- For direct injection or other spray equipment where the product formulations will be mixed in undiluted form, special care should be taken to ensure tank mix compatibility (see Tank Mix Compatibility Testing below.)
- Always perform a jar test to ensure the compatibility of products to be used in tank mixture.

**Note:** If tank mixing with Accord® Concentrate or Rodeo® herbicides, mix the Milestone VM Plus with at least 75% of the total spray volume desired and ensure that the Milestone VM Plus is well mixed before adding the Accord Concentrate or Rodeo to avoid incompatibility.

**Tank-Mix Compatibility Testing:** Perform a jar test prior to mixing in a spray tank to ensure compatibility of Milestone VM Plus and other pesticides or carriers. Use a clear glass jar with lid and mix ingredients in the same order and proportions as will be used in the spray tank. The mixture is compatible if the materials mix readily when the jar is inverted several times. The mixture should remain stable after standing for 1/2 hour or, if separation occurs, should readily remix if agitated. An incompatible mixture is indicated by separation into distinct layers that do not readily remix when agitated and/or the presence of flakes, precipitates, gels, or heavy oily film in the jar. Use of an appropriate compatibility aid such as Unite or Complex may resolve mix incompatibility. If the mixture is incompatible do not use that tank mix partner in tank mixtures.

**Use with Surfactants:** For post-emergence applications, a high quality surfactant such as a non-ionic surfactant of at least 80% active ingredient, should be added at 0.25% to 0.5% by volume (unless otherwise specified) to enhance herbicide activity under adverse environmental conditions (such as, high temperature, low relative humidity, drought conditions, dusty plant surfaces) or when weeds are heavily pubescent or more mature.

**Sprayer Clean-Out Instructions**

Do not use spray equipment used to apply Milestone VM Plus for other applications to land planted to susceptible crops or desirable sensitive plants unless it has been determined that all residues of this herbicide has been removed by thorough cleaning of equipment.

Equipment used to apply Milestone VM Plus should be thoroughly cleaned before reusing to apply any other chemicals as follows:

1. Rinse and flush application equipment thoroughly after use. Dispose of rinse water in non-cropland area away from water supplies.
2. Rinse a second time, adding 1 quart of household ammonia or tank cleaning agent for every 25 gallons of water. Circulate the solution through the entire system so that all internal surfaces are contacted (15 to 20 minutes). Let the solution stand for several hours, preferably overnight.
3. Flush the solution out of the spray tank through the boom.
4. Rinse the system twice with clean water, recirculating and draining each time.
5. Spray nozzles and screens should be removed and cleaned separately.

**Precautions for Avoiding Spray Drift**

Avoid application under conditions that may allow spray drift because very small quantities of spray, which may not be visible, may injure susceptible crops. This product should be applied only when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, non-target crops and other plants) is minimal (e.g., when wind is blowing away from the sensitive areas. A drift control aid may be



added to the spray solution to further reduce the potential for drift. If a drift control aid is used, follow the use directions and precautions on the manufacturer's label. Do not use a thickening agent with Microfoil, Thru-Valve booms, or other spray delivery systems that cannot accommodate thickened spray solutions.

**Ground Equipment:** With ground equipment spray drift can be lessened by keeping the spray boom as low as possible; by applying 10 gallons or more of spray per acre; by keeping the operating spray pressures at the manufacturer's recommended minimum pressures for the specific nozzle type used (low pressure nozzles are available from spray equipment manufacturers); and by spraying when the wind velocity is low (follow state regulations). Avoid calm conditions which may be conducive to thermal inversions. Direct sprays no higher than the tops of target vegetation and keep spray pressures low enough to provide coarse spray droplets to minimize drift.

**Aerial Application:** Avoid spray drift at the application site. The interaction of many equipment-and weather-related factors determine the potential for spray drift. Users are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

1. The distance of the outer most operating nozzles on the boom must not exceed 75% of wingspan or 85% of the rotor diameter.
2. Nozzles should be pointed backward parallel with the air stream or not pointed downwards more than 45 degrees.

Where states have more stringent regulations, they should be observed.

The applicator should be familiar with and take into account the information covered in the following **Aerial Drift Reduction Advisory**. This information is advisory in nature and does not supersede mandatory label requirements.

### Aerial Drift Reduction Advisory

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

#### Controlling Droplet Size:

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that will provide uniform coverage.
- **Nozzle Orientation** - Orient nozzles so that the spray is released parallel to the airstream. This produces larger droplets than other orientations. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

**Boom Length:** For some use patterns, reducing the effective boom length to less than 75% of wingspan or 85% of the rotor diameter may further reduce drift without reducing swath width.

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

**Swath Adjustment:** When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator 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 between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.

**Note:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

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

**Temperature Inversions:** Applications should not occur during a local, low level temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of the smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

---

### Terms and Conditions of Use

---

If terms of the following Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. To the extent permitted by law, otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitation of Remedies.

---

### Warranty Disclaimer

---

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. To the extent permitted by law, Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

---

### **Inherent Risks of Use**

---

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to label instructions (including conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. To the extent permitted by law, all such risks shall be assumed by buyer.

---

### **Limitation of Remedies**

---

To the extent permitted by law, the exclusive remedy for losses or damages resulting from this product (including claims based on contract, negligence, strict liability, or other legal theories), shall be limited to, at Dow AgroSciences' election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

To the extent permitted by law, Dow AgroSciences shall not be liable for losses or damages resulting from handling or use of this product unless Dow AgroSciences is promptly notified of such loss or damage in writing. To the extent permitted by law, in no case shall Dow AgroSciences be liable for consequential or incidental damages or losses.

The terms of the Warranty Disclaimer, Inherent Risks of Use and this Limitation of Remedies cannot be varied by any written or

verbal statements or agreements. No employee or sales agent of Dow AgroSciences or the seller is authorized to vary or exceed the terms of the Warranty Disclaimer or this Limitation of Remedies in any manner.

®Trademark of Dow AgroSciences LLC

**Produced for  
Dow AgroSciences LLC  
9330 Zionsville Road  
Indianapolis, IN 46268**

Label Code: D02-886-004  
Replaces Label: D02-886-003  
LOES Number: 010-02160  
EPA accepted: 05/26/11

**Revisions:**

1. Revised advisory text and graphic
2. Added restrictions for on and off farm hay
3. Revised restrictions in hay or manure use
4. Added the following broadleaf weeds: hairy fleabane, giant hogweed, Japanese knotweeds, wild licorice, purple loosestrife, silverleaf nightshade, Swainson pea, povertyweed, sicklepod, annual sowthistle, Japanese stiltgrass, blessed milk thistle, Tree of heaven, tulip poplar, panicle willoweed.
5. Added scientific name and plant family to all weeds