



### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY Washington, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

John J. Jachetta Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268

OCT 12 2012

Subject:

Label amendment adding restrictions for Northwest states to the main

label.

Milestone

EPA Reg. No: 62719-519

Application Dated: July 13, 2012

Dear Mr. Jachetta:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

A stamped copy of your label is enclosed for your records. This label supersedes all previously accepted labels. You must submit one (1) copy of the final printed label before you release the product for shipment. Products shipped after eighteen (18) months from the date of this letter must bear the new revised label. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA §6(e). Your release for shipment of the product constitutes acceptance of these conditions.

If you have any questions, please contact Grant Rowland at (703) 347-0254 or at Rowland Grant@epa.gov.

Şincerely,

Kathryn Montague Product Manager 23

Herbicide Branch

Registration Division (7505P)

L1B / Milestone / MSTR Amend / 06-19-12 file: Milestone-519 MSTR 19Jun12d.docx

### Milestone<sup>®</sup>

EPA Reg. No. 62719-519

#### **Registration Notes:**

**Proposed amended label** based on EPA accepted label dated May 26, 2011. Following are changes by amendment:

1. Add restrictions for Northeast states to the main label. No changes have been made to the supplemental labeling.

<sup>®</sup>Trademark of Dow AgroSciences LLC

(Base label):

## Milestone<sup>®</sup>

#### **Specialty Herbicide**

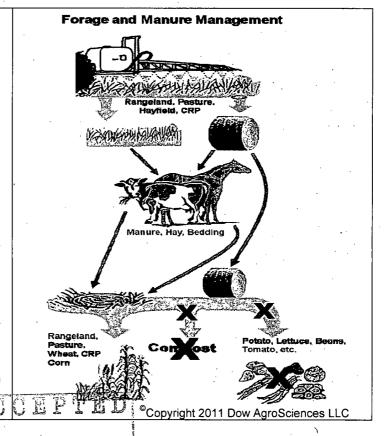
Under the Federal Insecticide, Fungicide, and Redemicide Ast, as amended, for the positioids

- For control of susceptible weeds and certain woody plants, including invasive and noxious weeds, on rangeland, permanent grass pastures (including grasses grown for hay\*), Conservation Reserve Program (CRP) acres, noncropland areas including industrial sites, rights-of-way (such as roadsides, electric utility and communication transmission lines, pipelines, and railroads), 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.
- For control of annual and perennial broadleaf weeds in wheat (including spring wheat, winter wheat, and durum).

\*Hay from grass treated with Milestone 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
- 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.



OCT 1 2 2012

Under the Endard Insecticide, Frankleide, and Redentialde Act, to sevended, for the pasticide

62319-519

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

**GROUP** 4 HERBICIDE

Active Ingredient:

Triisopropanolammonium salt of 2-pyridine

carboxylic acid, 4-amino-3,6-dichloro-.....40.6% Other Ingredients ...... 59.4%

Acid Equivalent: aminopyralid (2-pyridine carboxylic acid, 4-amino-3,6-dichloro-) - 21.1% - 2 lb/gal

[Editor's Note: The following Container Use Directions should be included on the label for product that is packaged in a 1 quart Tip and Dispense bottle]

#### **Container Use Directions**







#### Keep Out of Reach of Children CAUTION

#### **Precautionary Statements**

#### **Hazard to Humans and Domestic Animals**

**Causes Moderate Eye Irritation** 

Avoid contact with eyes or clothing.

#### Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks

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

#### **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.

#### **First Aid**

**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.

#### **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to label booklet under "Agricultural Use Requirements" in the "Directions for Use" section for information about this standard.

#### Nonrefillable containers 5 gallons or less:

#### 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.

**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:

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**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 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.

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#### Refer to label booklet for Directions for Use.

Notice: Read the entire label. Use only according to label directions. Before using this product, read Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies at end of label booklet. If terms are unacceptable, return at once unopened.

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-519

EPA Est.

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

Net Contents

<sup>&</sup>lt;sup>®</sup>Trademark of Dow AgroSciences LLC

(cover / shipping container):

### Milestone<sup>®</sup>

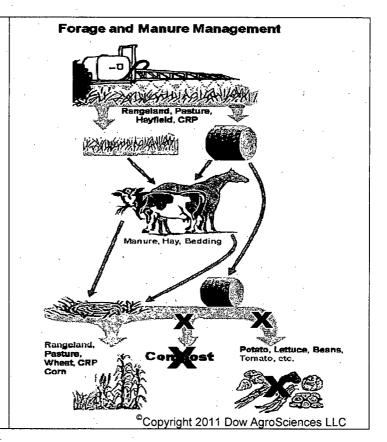
#### **Specialty Herbicide**

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

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GROUP	4 4	HEKRICIDE	
Active Ingredient:			
Triisopropanol	ammonium salt of 2	?-pyridine	
carboxylic a	cid, 4-amino-3,6-di	chloro 40.69	//
Other Ingredients		59.49	/
Tatal		400.00	·

Acid Equivalent: aminopyralid (2-pyridine carboxylic acid, 4-amino-3,6-dichloro-) - 21.1% - 2 lb/gal

## Keep Out of Reach of Children **CAUTION**

#### **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to label booklet under "Agricultural Use Requirements" in the "Directions for Use" section for information about this standard.

#### Refer to inside of label booklet for Directions for Use.

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EPA Reg. No. 62719-519

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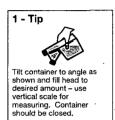
Net Contents

<sup>&</sup>lt;sup>®</sup>Trademark of Dow AgroSciences LLC

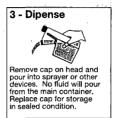
(Page 1 through end):

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#### **Container Use Directions**







#### **Precautionary Statements**

**Hazards to Humans and Domestic Animals** 

#### **CAUTION**

**Causes Moderate Eye Irritation** 

Avoid contact with eyes or clothing.

#### Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- · Shoes plus socks

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

#### **User Safety Recommendations**

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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.

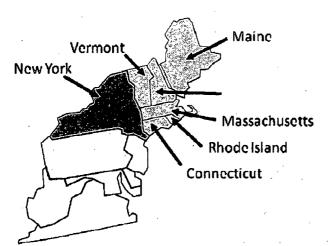
#### **Directions for Use**

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.

Not for use on pastures in Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. All other labeled uses are permitted in these states including grazed areas in and around these sites.



Light grey = states where use in pastures is not permitted
Dark grey = NY where the product is not registered

#### **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:

- Coveralis
- Chemical-resistant gloves made of any waterproof material as polyethylene or polyvinyl chloride
- Shoes plus socks
- Protective eyewear

#### 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 below 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 enter or allow worker entry into treated areas until sprays have dried.

#### 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 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.

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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 resistant to this herbicide mode of action is usually not a problem on rangeland, permanent grass pastures, Conservation Reserve Program (CRP), or non-cropland sites since these sites receive infrequent pesticide applications.
- In croplands, use an effective integrated pest management (IPM) program, integrating tillage or other mechanical methods, crop rotation or other cultural control methods into weed control programs whenever practical.
- 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.

# Rangeland, Permanent Grass Pastures, CRP Acres, Non-Cropland Areas, Non-Irrigation Ditch Banks, Natural Areas, and Grazed Areas In and Around These Sites

Milestone® specialty herbicide may be applied by aerial or ground equipment to control susceptible broadleaf weeds and certain woody plants, including invasive and noxious weeds on rangeland, permanent grass pastures (including grasses grown for hay\*), CRP acres, non-cropland areas including industrial sites, rights-of-way (such as roadsides, electric utility and communication transmission lines, pipelines, and railroads), 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 without injury to most grasses. For control of annual and perennial broadleaf weeds in wheat (including spring wheat, winter wheat, and durum).

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

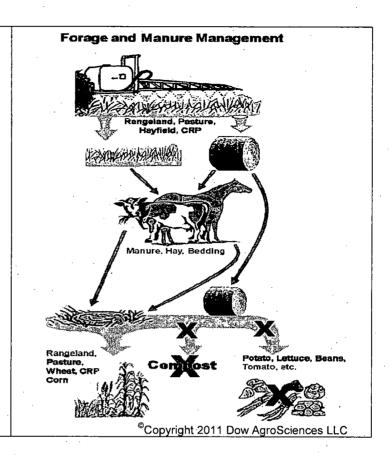
It is permissible to treat non-irrigation ditch banks, seasonally dry wetlands (such as flood plains, deltas, marshes, swamps, or bogs) and transitional areas between upland and lowland sites. Milestone can be used to the waters edge. Do not apply directly to water and take precautions to minimize spray drift onto water.

#### **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.

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

- Carefully read the section
   "Restrictions in Hay or Manure Use."
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#### Pasture and Rangeland Restrictions

- Do not use grasses treated with Milestone in the preceding 18-months for hay intended for export outside the United States.
- Hay from areas treated with Milestone 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 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 within the preceding
   18-months off farm unless allowed by supplemental labeling.
- Do not use hay or straw from areas treated with Milestone within the preceding 18-months or manure from animals feeding on hay treated with Milestone in compost.
- Do not use grasses treated with Milestone in the preceding 18-months for seed production.

**Maximum Application Rate:** On all labeled use sites do not broadcast apply more than 7 fl oz per acre of Milestone per year. The total amount of Milestone applied broadcast, as a re-treatment, and/or spot treatment cannot exceed 7 fl oz per acre per year. Spot treatments may be applied at an equivalent broadcast rate of up to 0.22 lb acid equivalent (14 fl oz of Milestone) per acre per annual growing season; however, not more than 50% of an acre may be treated at that rate. Do not apply more than a total of 0.11 lb acid equivalent (7 fl oz) per acre of Milestone per annual growing season as a result of broadcast, spot or repeat applications.

- Avoiding Injury to Non-Target Plants: Do not aerially apply Milestone within 50 feet of a border downwind (in the 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. Read and consider the "Precautions for Avoiding Spray Drift and Spray Drift Advisory" at the end of this label to help minimize the potential for spray drift.
- **Milestone is highly active against many broadleaf plant species.** Do not use this product on areas where loss of broadleaf plants, including legumes, cannot be tolerated.
- 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.
- Do not apply this product to 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.
- Trees adjacent to or in a treated area can occasionally be affected by root uptake of Milestone. Do
  not apply Milestone within the root zone of desirable trees unless such injury can be tolerated. Use
  special caution near roses, and leguminous trees such as locusts, redbud, mimosa, and caragana.
- 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. Injury to crops may result if treated soil and/or runoff
  water containing Milestone is washed, or moved onto land used to produce crops. Exposure to
  Milestone 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.

#### • Grass revegetation:

 Milestone can be used to control broadleaf plants in grass revegetation programs where desirable rangeland or reclamation grass species are being established in rangeland, permanent grass pastures, CRP, non-cropland, or other areas. Consult Dow AgroSciences' literature for more details about Milestone applications and grass stand establishment.

#### Application before seeding grasses

- Milestone can be applied in the spring through fall to control broadleaf weeds prior to grass planting. Grasses can be seeded as a dormant planting (in the late fall or early winter) in the year of application or grasses can be seeded the following spring. The grasses should be planted when soil temperatures are low enough to ensure that the seeds will not germinate and emerge until the following spring.
- Postemergence applications on grass: During the season of establishment, Milestone 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 at this stage of development. Milestone 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.

- Grass seed germination and seedling development can be adversely effected by many factors such as seed viability and seedling vigor, soil condition (sub-optimal soil temperatures or soil water content), weather after planting, seedbed preparation and seed placement, disease, insects, or animals. Milestone applications will help to reduce competition from weeds and improve the chance for successful grass stand establishment. Some grass species are more sensitive to Milestone; consult Dow AgroSciences' literature for more details.
- Seeding Legumes: Do not plant forage legumes until a soil bioassay has been conducted to
  determine if aminopyralid concentration remaining in the soil will adversely affect the legume
  establishment.
  - Grazing and Haying Restrictions: There are no restrictions on grazing or grass hay harvest
    following application of Milestone at labeled rates. Cutting hay too soon after spraying weeds
    will reduce weed control. Wait 14 days after herbicide application to cut grass hay to allow
    herbicide to work. Do not transfer grazing animals from areas treated with Milestone 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 aminopyralid to cause injury to
    sensitive 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.

#### • Restrictions in Hay or Manure Use:

- Do not use treated plant residues, including hay or straw from areas treated within the preceeding 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 eaten 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 eaten hay harvested from aminopyralid-treated areas within the previous 3 days may only be used 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 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.
- ♦ To promote herbicide decomposition, plant residues should be evenly incorporated in the surface soil or burned. Breakdown of aminopyralid in plant residues or manure is more rapid under warm, moist soil conditions and may be enhanced by supplemental irrigation.
- Crop Rotation: Do not rotate to any crop from rangeland, permanent pasture or CRP acres within
  one year following treatment. Cereals and corn can be planted one year after treatment. Most
  broadleaf crops are more sensitive and can require at least 2 years depending on the crop and
  environmental conditions. 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.
- **Field Bioassay Instructions:** In fields previously treated with this product, plant short test rows of the intended rotational crop 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 between harvest of the treated crop and the planting of the intended rotational crop. Observe the test crop for symptoms of herbicidal activity, such as poor stand (effect on seed germination), chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is

apparent herbicidal activity, do not plant the field to the intended rotational crop; plant only to wheat, forage grasses, native grasses or grasses grown for hay.

#### **Sprayer Clean-Out Instructions**

It is recommended to use separate spray equipment on highly sensitive crops such as tobacco, soybeans, peanuts and tomatoes.

Do not use spray equipment used to apply Milestone for other applications to land planted to, or to be planted to, broadleaf plants unless it has been determined that all residues of this herbicide have been removed by thorough cleaning of equipment.

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

- Rinse and flush application equipment thoroughly after use. Dispose of rinse water in noncropland 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.
- Do not apply this product with mist blower systems that deliver very fine spray droplets. Use of mist blower equipment can reduce control achieved with the herbicide and increase spray drift potential.

#### **Application Methods**

Apply the specified rate of Milestone as a coarse low-pressure spray. Do not apply this product with mist blower systems that deliver very fine spray droplets. 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. To enhance foliage wetting and coverage, an approved non-ionic agricultural surfactant may be added to the spray mixture as specified by the surfactant label.

**Ground Broadcast Application:** Higher spray volumes (greater than 10 gallons per acre) generally provide better coverage and better control, particularly in dense and/or tall foliage.

**Aerial Broadcast Application:** Do not apply less than 2 gallons per acre total spray volume. Five gallons per acre or greater will generally provide better coverage and better control, particularly in dense and/or tall foliage.

**High-Volume Foliar Application:** High volume foliar treatments may be applied at rates equivalent to a maximum of 7 fl oz per acre per annual growing season. Use sufficient spray volume to thoroughly and uniformly wet foliage and stems.

**Spot Application:** Spot treatments may be applied at an equivalent broadcast rate of up to 0.22 lb acid equivalent (14 fl oz of Milestone) per acre per annual growing season; however, not more than 50% of an acre may be treated at that rate. Do not apply more than a total of 0:11 lb acid equivalent (7 fl oz) per acre of Milestone per annual growing season as a result of broadcast, spot or repeat applications.) Spray volume should be sufficient to thoroughly and uniformly wet weed foliage, but not to the point of runoff. Repeat treatments may be made, but the total amount of Milestone applied must not exceed 7 fl oz per acre per year. To prevent misapplication, spot treatments should be applied with a calibrated sprayer.

Note: Table 1 below shows mixes for various sprayer outputs in gallons per acre (GPA).

Table 1: Amount of Milestone (in mL) to mix in 1 gallon of water

Gallons Milestone amount (in mL) to mix with

Use a syringe to measure cc

per acre	various application rates		
GPA	5 fl oz/a	7 fl oz/a	14 fl oz/a
20	7.5	10.5	21.0
30	5.0	7.0	14.0
40	3.8	5.3	10.5
50	3.0	4.2	8.4
60	2.5	3.5	7.0
70	2.1	3.0	6.0
80	1.9	2.6	5.3
. 90	1,7	2.3	4.7
100	1.5	2.1	4.2

#### Conversions:

1 tsp = 5 mL 30 ml = 1 fluid ounce 1 cc = 1 mL

3 tsp = 1 Tbsp 2 Tbsp = 1 fluid ounce

**Table 2:** Application rates in the table below are based on treating an area of 1000 sq ft. An area of 1000 sq ft is about 10.5 by 10.5 yards in size. Mix the amount of Milestone (fl oz or milliliters) corresponding to the desired broadcast rate in 0.5 to 2.5 gallons of water, depending upon the spray volume required to treat 1000 sq ft. A delivery volume of 0.5 to 2.5 gallons per 1000 sq ft is equivalent to 22 to 109 gallons per acre.

Table 2: Amount of Milestone per 1000 sq ft to Equal Broadcast Rate

Amount of Milestone per 1000 sq ft to Equal Broadcast Rate			
Broadcast Rate Amount of Milestone per 1000 so (fl oz/acre) ft			
,	(fl oz) (Milliliters)		
3	0.069	2	
5	0.115	3.4	
7	0.161	4.8	

Note: 1 fluid ounce (fl oz) = 29.6 milliliters (mL) = 2 tablespoons = 6 teaspoons

To calculate the amount of Milestone for areas larger than 1000 sq ft: Multiply the table value (fl oz or milliliters) by the area to be treated in "thousands" of square feet. For example, if the area to be treated is 3500 sq ft, multiply the table value by 3.5 (3500 sq ft divided by 1000 sq ft = 3.5).

#### **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 the specified amount of Milestone and other registered tank mix herbicides. Finally, with continued agitation, add the rest of the water and additives such as surfactants or drift control and deposition aids.

Addition of Surfactants or Adjuvants on All Labled Use Sites: The addition of a high quality non-ionic surfactant (of at least 80% active ingredient) at 0.25 to 0.5 % volume per volume (1 to 2 quarts per 100 gallons of spray) is recommended 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.

Tank Mixing with Other Herbicides: Milestone at rates of up to 7 fl oz per acre may be mixed with labeled rates of other herbicides registered for application on all labeled use sites. Milestone may be applied in tank mix combination 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, and (3) that the tank mix combination is physically compatible (see tank mix compatibility testing below). When tank mixing, use only in accordance with the restrictions, precautions and limitations on the respective product labels.

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed specified application rates. If products containing the same active ingredient are mixed, do not exceed the maximum allowable active ingredient use rates.
- 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.
- Always perform a jar test to ensure the compatibility of products to be used in tank mixture.

Tank Mix Compatibility Testing: Perform a jar test prior to mixing in a spray tank to ensure compatibility of Milestone 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 may resolve mix incompatibility. If the mixture is incompatible do not use that tank mix partner in tank mixtures.

Mixing with Sprayable Liquid Fertilizer Solutions: Milestone is usually compatible with liquid fertilizer solutions. It is anticipated that Milestone will not require a compatibility agent for mixing with fertilizers; however, a compatibility test (jar test) should be made prior to mixing. Jar tests are particularly important when a new batch of fertilizer or pesticide is used, when water sources change, or when tank mixture ingredients or concentrations are changed. Compatibility may be determined by mixing the spray components in the desired order and proportions in a clear glass jar before large scale mixing of spray components in the spray tank.

Note: The lower the temperature of the liquid fertilizer, the greater the likelihood of mixing problems. Use of a compatibility aid may be required if Milestone is mixed with a 2,4-D-containing product and liquid fertilizer. Mixing Milestone and 2,4-D in N-P or N-P-K liquid fertilizer solutions is more difficult than mixing with straight nitrogen fertilizer and should not be attempted without first conducting a successful compatibility jar test. Agitation in the spray tank must be vigorous to be comparable with jar test agitation. Apply the spray mixture the same day it is prepared while maintaining continuous agitation. Rinse the spray tank thoroughly after use.

**Note:** Foliar-applied liquid fertilizers themselves can cause yellowing of the foliage of forage grasses and other vegetation.

#### **Use Rates and Timing**

Milestone may be applied post emergence as a broadcast spray or as a spot application to control weeds including, but not limited to, those listed on this label. When a rate range is given use the higher rate to control weeds at advanced growth stages, or under less than favorable growing conditions, or for longer residual control. Best results are obtained when spray volume is sufficient to provide uniform coverage of treated weeds. For optimum uptake and translocation of Milestone, avoid mowing, haying, shredding, burning or soil disturbance in treated areas for at least 14 days following application.

Milestone also provides preemergence control of emerging seedlings of susceptible weeds, and regrowth of certain perennial weeds following application. Preventing establishment of weeds will depend upon application rate, season of application, and environmental conditions after application.

Milestone can provide long-term control of susceptible 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 weed control is most effective where grass vegetation is allowed to recover from overgrazing, drought, etc., and compete with weeds.

Milestone can be an important component of integrated vegetation management programs designed to renovate or restore desired plant communities. To maximize and extend the benefits of weed control provided by Milestone, it is important that other vegetation management practices, including proper grazing management, biological control agents, replanting, fertilization, prescribed fire, 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 plant communities. Agricultural and natural resources specialists with federal and state government agencies can provide guidance on best management practices and development of integrated vegetation management programs.

#### **Weeds Controlled**

The following weeds will be controlled with the rates of Milestone indicated below (table 3). 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, or when residual control is desired. Milestone also provides preemergence control of germinating seeds or seedlings of susceptible weeds following application.

Table 3: Weeds Controlled

**Note:** Numbers in parentheses (-) refer to specific use directions for a particular weeds species.

Common Name	Scientific Name	Rate Range (fl oz/acre)	Life Cycle	Plant Family
amaranth, spiny	Amaranthus spinosus	4 to 7	annual	Amaranthaceae
bedstraw	Galium spp.	4 to 7	perennial	Rubiaceae
beggarticks	Bidens spp.	4 to 7	annual	Asteracea
blackeyed-susan	Rudbeckia hirta	4 to 7	Annual	Asteraceae
broomweed, annual	Amphiachyris dracunculoides	4 to 7	annual	Asteraceae
burdock, common*, **	Arctium minus	4 to 7 .	biennial	Asteraceae
buttercup, hairy*	Ranunculus sardous	4 to 7	annual	Ranunculaceae
buttercup, tall*, **	Ranunculus acris	4 to 7	perennial	Ranunculaceae
camelthorn	Alhagi pseudalhagi	5 to 7	perennial	Fabaceae <sup>-</sup>
cat's ear, common	Hypochaeris radicata	5 to 7	Perennial	Asteracea
chamomile, scentless	Matricaria inodora	4 to 7	annual	Asteraceae
chicory*	Cichorium intybus	4 to 6	perennial	Asteraceae
chickweed	Stellaria media	7	annual	Caryophyllacea e
cinquefoil, sulfur (1)*, **	Potentilla recta	4 to 7	perennial	Rosaceae
cocklebur	Xanthium strumarium	3 to 5	annual	Asteraceae
clover	Trifolium spp.	5 to 7	perennial	Fabaceae
crazyweed	Oxytropisp	5 to 7	perennial	Fabaceae
croton, tropic	Croton glandulosus	. 3 to 5	annual	Euphorbiaceae

crownvetch	Securigera varia	5 to 7	perennial	Fabaceae
cudweed, purple	Gamochaeta purpurea	4 to 7	annual	Asteraceae
daisy, oxeye (1)*, **	Leucanthemum vulgare	4 to 7	perennial	Asteraceae
dock, curly*	Rumex crispus	4 to 7	perennial	Polygonaceae
evening primrose, cutleaf	Oenothera laciniata	4 to 7		Onagraceae
	Amsinckia intermedia	7	annual	<del></del>
fiddleneck, common	<del></del>	5 to 7	annual	Boraginaceae
fireweed	Epilobium angustifolium		perennial	Onagraceae
fleabane, flax-leaf	Conyza bonariensis	4 to 7	annual	Asteraceae
fleabane, hairy	Conyza bonariensis	5-7	annual/biennial	Asteraceae
hawkweed, orange (2)*, **	Hieracium aurantiacum	4 to 7	perennial	Asteraceae
hawkweed, yellow (2)*, **	Hieracium caespitosum	4 to 7	perennial	Asteraceae
henbane, black	Hyoscyamus niger	5 to 7	Annual/biennial	Solanaceae
henbit*	Lamium amplexicaule	5 to 7	annual/ biennial	Lamiaceae
	Heracleum	<u>-</u>		
hogweed, giant	mantegazzianum	7	perennial	Apiaceae
horsenettle, Carolina**	Solanum carolinense	4 to 7	perennial	Solanaceae
horseweed (marestail)	Conyza canadensis	4 to 7	annual	Asteraceae
ironweed, tall	Vernonia gigantea	5 to 7	perennial	Asteraceae
ironweed, western	Vernonia baldwinii	7	perennial	Asteráceae
knapweed, diffuse (3)*, **	Centaurea diffusa	5 to 7	biennial/ perennial	Asteraceae
knapweed, Russian (4)*, **	Acroptilon repens	5 to 7	perennial	Asteraceae
knapweed, spotted (3)*, **	Centaurea stoebe	5 to 7	biennial/ perennial	Asteraceae
knapweeds	Centaurea spp.	5 to 7	biennial/ perennial	Asteraceae
knotweeds, Japanese,				
bohemian (11)*.**	Reynoutria japonica	7-14*	perennial	Polygonaceae
kudzu*, **	Pueraria montana	7	perennial	Fabaceae
lady's thumb*	Polygonum persicaria	3 to 5	annual	Polygonaceae
lambsquarters	Chenopodium album	5 to 7	annual	Chenopodiacea e
lespedeza, annual	Lespedeza striata	5 to 7	annual	Fabaceae
licorice, wild	Glycyrrhiza lepidota	7	perennial	Fabaceae
locoweed	Astragalus spp.	5 to 7	Perennial	Fabaceae
locust, black	Robinia pseudoacacia	7	woody perennial	Fabaceae
locust, honey	Gleditsia triacanthos	7	woody perennial	Fabaceae *
loosestrife, purple (12)*, **	Lythrum salicaria	7-14*	perennial	Lythraceae
mayweed, scentless*	Tripleurospermum perforata	4 to 7	annual	Asteraceae
mayweed, stinking*, **	Anthemis cotula	7	annual	Asteraceae
medic, black*	Medicago lupulina	4 to 7	perennial	Fabaceae
mimosa	Albizia julibrissin	7	woody perennial	Fabaceae
mullein (5)	Verbascum spp.	. 7	biennial	Scrophulariacea e
nightshade, silverleaf	Solanum elaeagnifolium	4-7	perennial	Solanaceae
oxtongue, bristly	Picris echioides	5 to 7	biennial	Asteraceae
	<del> </del>	<del></del>		
pea, Swainson	Sphaerophysa salsula	5-7	perennial	Fabaceae

povertyweed	Iva axillaris	5-7	perennial	Asteraceae
ragweed, common**	Ambrosia artemisiifolia	3 to 5	annual	Asteraceae
ragweed, western	Ambrosia psilostachya	4 to 7	perennial	Asteraceae
ragwort, tansy*, **	Senecio jacobaea	5 to 7	perennial	Asteraceae
redbud	Cercis Canadensis	7	woody	Fabaceae
	·		perennial	
rush skeletonweed	Chondrilla juncea	5 to 7	perennial	Asteraceae
sicklepod	Cassia obtusifolia	7	perennial	Fabaceae
smartweed, Pennsylvania	Polygonum pensylvanicum	3 to 5	annual	Polygonaceae
sneezeweed, bitter	Helenium amarum	4 to 7	annual	Asteraceae
soda apple, tropical (6)*, **	Solanum viarum	5 to 7	perennial	Solanaceae
sowthistle, annual	Sonchus oleraceae	7	annual	Asteraceae
sowthistle, perennial*, **	Sonchus arvensis	3 to 5	perennial	Asteraceae
spanishneedles	Bidens bipinnata	4 to 7	annual	Asteraceae
St. Johnswort, common	Hypericum perforatum	5 to 7	perennial	Clusiaceae
stiltgrass, Japanese	Microstegium vimineum	5-7	annual	Poaceae
star-thistle, Malta (7) *,**	Centaurea melitensis	3 to 5	annual	Asteraceae
starthirstle, purple (7) *.**	Centaurea calcitrapa	3 to 5	biennial	Asteraceae
star thistle, yellow (7)*, **	Centaurea solstitialis	3 to 5	annual	Asteraceae
sunflower, common	Helianthus annuus	4 to 7	annual	Asteraceae
teasel	Dipsacus spp.	4 to 7	biennial	Dipsacaceae
thistle, artichoke	Cynara cardunculus	5 to 7	perennial	Asteracea
thistle, blessed milk	Silybum marianum	4-7	bienniał	Asteraceae
thistle, bull (8)*, **	Cirsium vulgare	3 to 5	biennial	Asteraceae
thistle, Canada (9)*, **	Cirsium arvense	5 to 7	perennial	Asteraceae
thistle, woolly distaff	Carthamus lanatus	4 to 7	annual	Asteraceae
thistle, Italian	Carduus pycnocephalus	7	annual	Asteraceae
thistle, musk (8)*, **	Carduus nutans	3 to 5	biennial	Asteraceae
thistle, plumeless (8)*, **	Carduus acanthoides	3 to 5	biennial	Asteraceae
thistle, Scotch*, **	Onopordum acanthium	5 to 7	biennial	Asteracea
thistle, Russian				Chenopodiacea
(preemergence)	Salsola tragus	7	annual	e
Tree of heaven	Ailanthus altissima	7	perennial	Simaroubaceae
vetch	Vicia spp.	3 to 7	perennial	Fabaceae
willoweed, panicle	Epilobium brachycarpum	5-7	annual	Onagraceae
wisteria	Wisteria brachybotris	7	woody	Fabaceae
			perennial	
wormwood, absinth(10)*, **	Artemisia absinthium	6 to 7	perennial	Asteraceae
yarrow, common	Achillea millefolium	7	perennial	Asteraceae

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

- (1) **Sulfur cinquefoil or oxeye daisy:** Apply Milestone at 4 to 6 fl oz per acre to plants in the prebud stage of development.
- (2) **Orange or yellow hawkweeds:** Apply Milestone at 4 to 7 fl oz per acre to plants in the bolting stage of development.
- (3) **Diffuse and spotted knapweeds:** Apply Milestone at 5 to 7 fl oz per acre when plants are actively growing with the optimum time of application occurring from rosette to the bolting stages of

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

- development or in the fall. Plants will be controlled by mid-summer and fall applications even though plants may not show any changes in form or stature the year of application.
- (4) Russian knapweed: Apply Milestone at 5 to 7 fl oz per acre to plants in the spring and summer to plants from early bud to flowering stage and to dormant plants in the fall.
- (5) Mullein: Apply to the rosette stage
- (6) **Tropical soda apple:** Apply Milestone at 5 to 7 fl oz per acre at any growth stage, but application by flowering will reduce seed production potential.
- (7) **Malta, purple, and Yellow starthistle:** Apply Milestone at 3 to 5 fl oz per acre to plants at the rosette through bolting growth stages.
- (8) **Buil, musk, and plumeless thistles:** Apply Milestone at 3 to 5 fl oz per acre in the spring and early summer to rosette or bolting plants or in the fall to seedlings and rosettes. Apply at 4 to 5 fl oz when plants are at the late bolt through early flowering growth stages. 2,4-D at 1 lb ae/acre should be tank-mixed with Milestone starting at the late bud stages
- (9) Canada thistle: Apply Milestone at 5 to 7 fl oz per acre 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. Use higher rates for older/dense stands or for longer residual control.
- (10) **Absinth wormwood:** Apply 6 to 7 fl oz per acre before wormwood is 12 inches tall. When applying by air on CRP, coverage is important and a minimum of 3 GPA is specified. Remove old duff and litter by fire or mowing for best results
- (11) Invasive knotweeds: Japanese, Bohemian, giant knotweeds: Apply Milestone at 7 fl oz per acre broadcast using high volume per acre (100 gallons per acre) or apply as a spot treatment using 14 fl oz per acre. 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 resprout; the total amount of Milestone applied broadcast, as a re-treatment, and/or spot treatment cannot exceed 7 fl oz per acre per year.
- (12) Purple loosestrife: For optimum control apply Milestone at 7 fl oz per acre plus 1 pt to 1 qt of 2,4-D amine or 1 to 2 qts of Garlon 3A. Spot treatments may also be made by applying Milestone at 14 fl oz (see Spot treatment section of the label) with or without the addition of 2,4-D or Garlon 3A.

#### **Woody Plant Control**

Milestone 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.

Add Milestone to tank mixes for improved brush control on species such as aspen, conifers (pine), elm, maple, cherry, poplar, oak, Scotch broom, boxelder, hackberry, Russian olive, salt cedar, and blackberry.

#### FOLIAR APPLICATIONS:

For broad spectrum brush control using a foliar application, Milestone may be added to tank mixes with Accord Concentrate or Accord XRT II, Arsenal Powerline, Garlon 4 Ultra, Forestry Garlon XRT, or Garlon 3A, Rodeo, Tordon K, or other products labeled for use in industrial vegetation management programs.

#### LOW VOLUME BASAL BARK APPLICATIONS:

To control susceptible woody plants with stems less than 6 inches in basal diameter, apply herbicide mix (see below for rates) with a backpack or knapsack sprayer using low pressure and a solid cone or flat fan nozzle. Spray the basal parts of brush and tree trunks to a height of 12 to 15 inches from the ground in a manner that thoroughly wets the lower stems but not to the point of runoff. The use of a Spraying Systems Y2 nozzle or similar nozzle is recommended, which will narrow the spray pattern to target individual stems. Herbicide concentration should vary with tree diameter, bark thickness, volume used per acre, and susceptibility of species treated. Apply anytime, including the winter months, except when snow or water prevent spraying to the ground line or when stem surfaces are saturated with water.

Milestone may be used as a low volume basal treatment alone, for sensitive woody species in the Fabaceae family (legumes), or in combination with Garlon 4 Ultra or Forestry Garlon XRT, for broader control of other sensitive woody species. Applications should not exceed the maximum use rate per acre.

Mix Milestone at 1 to 5% v/v alone, or with Garlon 4 Ultra or Forestry Garlon XRT in a commercially available basal diluent (or other oils or basal diluents as recommended by the manufacturer); the basal oil should be compatible with a water soluble herbicide such as Milestone. Make a stable tank mixture for basal bark application by first combining each product with a compatibility agent prior to final mixing in the desired ratio. Mix Milestone and Garlon 4 Ultra or Forestry Garlon XRT (if using a tank mix) thoroughly with basal oil; if the mixture stands for more than 30 minutes, reagitation may be required. Do not store the final mixture.

#### **Cut surface**

Apply Milestone in the cut surface applications listed below for control of susceptible tree species such as legumes like Albezia, mimosa, locust, etc. Mixtures of Milestone and Garlon 3A or Garlon 4 may be effective on species other than legumes such as elm, maple, oak and conifers.

Cut surface applications may be used successfully at any season except during periods of heavy sap flow of certain species - for example, maples.

#### **Cut-Stump Treatment**

Apply Milestone as a 10% dilution v/v in water, by spraying or painting the cut surfaces of freshly cut stumps and stubs as soon as possible after cutting with undiluted Milestone. The cambium area next to the bark is the most vital area to wet.

#### With Tree Injector Method

Apply by injecting 1 milliliter of 10% v/v Milestone in water 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 10% v/v Milestone in water 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 10% v/v Milestone in water.

Wheat, Including Durum (Not Underseeded with a Legume)

Milestone controls annual and perennial broadleaf weeds in wheat (including durum) not underseeded with a legume.

#### **Application Timing and Weeds Controlled**

**Timing to Crop:** Apply as a broadcast treatment to actively growing wheat from the 3 leaf crop growth stage up to early jointing stage (Zadoks scale 30). **Do not use if cereal crop is underseeded with a legume.** 

**Timing to Weeds:** Apply when weeds are actively growing and at specified growth stages. For best results on perennial weeds such as Canada thistle, apply when the majority of the basal leaves have emerged from the soil up to bud stage. Only weeds emerged at the time of application will be controlled. Unfavorable growing conditions such as drought or temperatures near freezing prior to, at, or following time of application may reduce weed control and increase the risk of crop injury at all stages of growth.

**Spot Application:** To prevent over-application, spot treatments must be applied at rates and spray volumes equivalent to broadcast application. For spot application, apply the specified rate in a spray volume of 0.5 gal or more per 1000 sq ft.

Table 4: Weeds Controlled or Suppressed

Note: Numbers in parentheses (-) refer to footnotes below.

Weeds Controlled	Weeds Suppressed †	Application Rate
buckwheat, wild (2)	bindweed, field	
chamomile	knotweed	broadcast: 0.57 fl oz/acre
dock, curly	ladysthumb (1)	
grape species	lambsquarters	spot treatment:
horseweed (marestail)	mustard species	0.4 ml/1000 sq ft
lentils, volunteer	pennycress, field	
lettuce, prickly	pigweed species	
mayweed (dogfennel)	smartweed, green (1)	
peas, volunteer	sowthistle, perennial (3)	
sowthistle, annual	thistle, Canada (3)	
sunflower (1)	thistle, Russian	
wormwood, biennial		

Suppression is considered to be a reduction in weed competition (reduced weed population or vigor) in treated compared to untreated areas. Tank mixing with a labeled herbicide may be required to achieve consistent control of these weeds.

- 1. For best results, apply up to the 2 to 4 leaf stage of growth.
- 2. For best control, apply in the 1 to 3 leaf stage of growth, before vining.
- 3. For best results, apply from rosette to bud (pre-flower) stage of growth.

**Perennial Weeds:** Milestone will control top growth and inhibit regrowth of perennial weeds during the season of application (season-long control). Milestone may cause a reduction in perennial weed shoot growth in the season following application, but effects may be inconsistent due to variability in size and vigor of perennial root systems and growing conditions.

#### Restrictions:

- Do not apply more than 0.57 fl oz per acre of Milestone per growing season.
- **Preharvest Interval:** Do not apply within 50 days of harvesting of grain and straw. There is no restriction following application of Milestone on harvest of wheat for hay.

#### Tank Mixtures (Wheat, Including Durum)

To broaden the spectrum of weed control or to improve control of certain weeds, Milestone may be tank mixed with labeled rates of other herbicides registered for postemergence application in wheat (table 5). See Tank Mixing Precautions under Mixing Instructions. When tank mixing, do not exceed specified application rates and use only in accordance with the restrictions, precautions and limitations on the respective product labels.

Table 5: Tank Mixtures for Wheat, Including Durum

The following products may be tank mixed with Milestone for improved control of listed weeds:

Tank Mix Product	Broadcast Rate	Additional Weeds Controlled
Starane <sup>®</sup> herbicide	1/2 pint/acre	kochia, bedstraw (cleavers), chickweed, volunteer flax
2,4-D ester or amine (3.8 lb/gal a.e.)	1/2 to 3/4 pint/acre	lambsquarters, mustard, pigweed, Canada thistle, Russian thistle
MCPA ester or amine (3.8 lb/gal a.e.)	1/2 to 3/4 pint/acre	lambsquarters, mustard
Harmony™ GT herbicide	3/10 oz/acre	lambsquarters, mustard, pigweed, Russian thistle
Express™ XP herbicide	1/8 to 1/3 oz/acre	mustard, Canada thistle, Russian thistle
Ally™ XP herbicide	1/10 oz/acre	lambsquarters, mustard, pigweed, Russian thistle

#### Use Precautions and Restrictions (Wheat, Including Durum)

- Avoiding Injury to Nontarget Plants: Do not apply Milestone directly to, or allow spray drift to come in contact with, any broadleaf crop or other desirable broadleaf plants, including, but not limited to, cotton, 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 will be planted the same season. Avoid application under conditions that may allow spray drift since very small quantities of spray, which may not be visible, may seriously injure susceptible crops during either active growth periods or dormancy. Follow Precautions for Avoiding Spray Drift and Aerial Drift Reduction Advisory to minimize the potential for spray drift.
- Do not contaminate irrigation ditches or water used for domestic purposes.
- Chemigation: Do not apply this product through any type of irrigation system.
- Do not transfer livestock from treated grazing areas (or livestock fed treated hay) to sensitive
  broadleaf crop areas without first allowing 3 days of grazing on an untreated pasture (or feeding of
  untreated hay). If livestock are transferred within less than 3 days of grazing untreated pasture or
  eating untreated hay, urine and manure may contain enough aminopyralid to cause injury to sensitive
  broadleaf plants.

#### **Crop Rotation Intervals**

Residues of this product in treated plants, including the treated crop or weeds, which have not completely decayed may affect succeeding susceptible crops.

Table 6: Crop Rotation Intervals

Note: Numbers in parenthesis (-) refer to footnotes following tables.

Rotation Crops	Rotation Interval (1) (Months)
wheat (including durum)	0
barley, canola (rapeseed), flax, grasses, field corn, grain sorghum, oats, mustard, popcorn, sweet corn	3
safflower	9
crops not listed	18 (2)

1. The above listed crop rotational intervals are based on average annual precipitation, regardless of irrigation practices. Observance of specified crop rotation intervals should result in adequate safety to rotational crops. However, Milestone is dissipated in the soil by microbial activity and the rate of microbial activity is dependent upon several interrelated factors including soil moisture, temperature and organic matter. Therefore, accurate prediction of rotational crop safety is not possible. In areas of low organic matter (<2.0%) and less than 15 inches average annual precipitation, potential for crop

injury may be reduced by burning or removal of crop residues, supplemental fall irrigation and deep moldboard plowing prior to planting the sensitive crop.

2. Perform a field bioassay prior to planting any broadleaf crops that are not listed. Do not rotate to unlisted crops prior to 18 months following application without a field bioassay.

Field Bioassay Instructions: In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application in a manner to sample variability in field conditions such as soil texture, soil organic matter, soil pH, or drainage. The field bioassay can be initiated at any time between harvest of the treated crop and the planting of the intended rotational crop. Observe the test crop for herbicidal activity, such as poor stand (effect on seed germination), chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, do not plant the field to the test rotational crop; plant only a labeled crop or crop listed in table 6 above for which the rotational interval has clearly been met.

#### **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 specified 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 rotor diameter.
- 2. Nozzles should be pointed backward parallel with the air stream or not pointed downwards more than 45 degrees.

State regulations must be followed.

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 specified 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 to produce 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:** The distance of the outer most operating nozzles on the boom must not exceed 75% of wingspan or 85% of rotor diameter.

**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 such as valleys and ravines 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.

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.

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EPA accepted/_/_		

# Supplemental Labeling



**Dow AgroSciences LLC** 

9330 Zionsville Road

Indianapolis, IN 46268-1054 USA



## For Postemergence Broadleaf Weed Control in Field Corn and Field Corn Grown For Ensilage

#### **ATTENTION**

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for Milestone<sup>™</sup> herbicide before applying. Carefully follow all precautionary statements and applicable use directions.
- Use of Milestone according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for Milestone.

#### **Directions for Use**

Milestone® herbicide is a selective herbicide for postemergence broadleaf weed control in field corn and field corn grown for ensilage. Postemergence treatments should be applied with water. Absorption of Milestone occurs from both shoot and root uptake. Susceptible weeds exposed to Milestone stop growing and either die or remain non-competitive with the crop. Milestone can provide residual control of susceptible weeds that may emerge after application. Adequate soil moisture is necessary for optimal activation because uptake and translocation of Milestone involves uptake by emerging shoots and/or roots.

- Spray or Spot Applications may not be made after the V6 growth stage (BBCH 16).
- Forage may not be harvested prior to the dent stage of growth.

#### **Use Precautions and Restrictions**

**Maximum Application Rate:** Do not exceed a total application rate of 1.7 fluid oz per acre of Milestone in a single crop year. Do not apply greater than 0.57 oz Milestone/A (0.0089 lbae/A) in a single application, or corn injury and reduction of yield may result.

- Do not apply more than 3 applications per year.
- An interval of at least 3 days is required between each application.
- Do not apply by air.

#### **Application Precautions**

- Uneven application of Milestone can result in erratic weed control or crop injury. Over application may result in crop injury or rotational crop damage from soil residue.
- **Preharvest Interval:** An interval of at least 0 days is required between application of Milestone and field corn harvested for grain. If field corn is grown for forage or ensilage, application must occur before corn reaches 20 inches in height or V6 growth stage (whichever occurs first) and an interval of at least 8 days is required between application and harvest.

#### **Application Timing and Weeds Controlled**

**Timing to Crop:** Apply as a broadcast treatment to actively growing corn before it reaches 20 inches in height or V6 growth stage (whichever occurs first).

**Timing to Weeds:** Apply when weeds are actively growing and at specified growth stages. For best results on perennial weeds, apply when the majority of the basal leaves have emerged from the soil up to bud stage. Unfavorable growing conditions such as drought or temperatures near freezing prior to, at, or following time of application may reduce weed control and increase the risk of crop injury at all stages of growth.

**Spot Application:** To prevent over-application, spot treatments should be applied at rates and spray volumes equivalent to broadcast application. For spot application, apply the specified rate in a spray volume of 0.5 gal or more per 1000 sq ft.

Note: Numbers in parentheses (-) refer to footnotes below.

Weeds Controlled	Weeds Suppressed †	Application Rate
buckwheat, wild (2) cocklebur lentils, volunteer lettuce, prickly	dock, curly knotweed ladysthumb (1) lambsquarters	broadcast: 0.57 to 1.7 fl oz/acre
peas, volunteer sowthistle, annual sunflower (1) wormwood, biennial	smartweed, green (1) sowthistle, perennial (3) thistle, Canada (3)	spot treatment: 0.4 to 1.2 ml/1000 sq ft

<sup>&</sup>lt;sup>†</sup> Suppression is considered to be a reduction in weed competition (reduced weed population or vigor) in treated compared to untreated areas. Tank mixing with a labeled herbicide may be required to achieve consistent control of these weeds.

- (1) For best results, apply up to the 2 to 4 leaf stage of growth.
- (2) For best control, apply in the 1 to 3 leaf stage of growth, before vining.
- (3) For best results, apply from rosette to bud (pre-flower) stage of growth.

**Perennial Weeds:** Milestone will control top growth and suppress regrowth of perennial weeds during the season of application. Milestone may cause a reduction in perennial weed shoot growth in the season following application, but effects may be inconsistent due to variability in size and vigor of perennial root systems and growing conditions.

#### Tank Mixing

Milestone may be tank mixed or followed by other overlay or postemergence treatments registered for use on corn to broaden the spectrum of weeds controlled. This product may be applied in tank mix combination with labeled rates of other products provided (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 tank mix product; and (3) the tank mix combination is compatible as determined by a "jar test" described in the "Tank Mix Compatibility Testing" section below.

#### **Tank Mixing Precautions:**

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed specified application rates. Do not tank mix with another pesticide product that contains the same active ingredient as this product unless the label of either tank mix partner specifies the maximum dosages that may be used.
- For products packaged in water soluble packaging, do not tank mix with products containing boron or mix in equipment previously used to apply a product mixture containing boron unless the tank and

spray equipment has been adequately cleaned. (See instructions for Sprayer Clean-Out.)

Tank Mix Compatibility Testing: A jar test is specified prior to tank mixing to ensure compatibility of Milestone and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, jels, oily films or layers, or other precipitates, it is not compatible and the tank-mix combination should not be used.

#### Other Precautions and Restrictions

- Do not apply Milestone to sweet corn or popcorn.
- Hybrid Seed Production: Corn inbred lines grown for hybrid seed production may be injured by
  Milestone. Inbred lines should be thoroughly tested for crop tolerance before treating large acreage.
  While growers are not prohibited from using Milestone on seed corn, Dow AgroSciences will not
  accept responsibility for any crop injury arising from the use of Milestone on field corn grown
  for seed.
- Avoiding Injury to Non-Target Plants: Do not apply Milestone directly to, or allow spray drift to
  come in contact with, any broadleaf crop or other desirable broadleaf plants, including, but not limited
  to, cotton, 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 will be planted the same season. Avoid application under conditions that may allow spray drift
  since very small quantities of spray, which may not be visible, may seriously injure susceptible crops
  during either active growth periods or dormancy. Follow Precautions for Avoiding Spray Drift on the
  label affixed to the container for Milestone and the Advisories to minimize drift to non-target sites on
  this supplemental label.
- Do not contaminate irrigation ditches or water used for domestic purposes.
- Chemigation: Do not apply this product through any type of irrigation system.
- **Do not transfer livestock** from treated grazing areas (or livestock fed treated hay) to sensitive broadleaf crop areas without first allowing 3 days of grazing on an untreated pasture (or feeding of untreated hay). If livestock are transferred within less than 3 days of grazing untreated pasture or eating untreated hay, urine and manure may contain enough aminopyralid to cause injury to sensitive broadleaf plants.

#### **Crop Rotation Intervals**

Residues of this product in treated plants, including the treated crop or weeds, which have not completely decayed may affect succeeding susceptible crops.

Note: Numbers in parenthesis (-) refer to footnotes following tables.

Rotation Crops	Rotation Interval (1) (Months)
wheat	0
grasses, field corn	4
barley, canola (rapeseed), flax, grain sorghum, mustard, oats, sweet corn, popcorn	12
crops not listed	24 (2)

- (1) The above listed crop rotational intervals are based on average annual precipitation, regardless of irrigation practices. Observance of specified crop rotation intervals should result in adequate safety to rotational crops. However, Milestone is dissipated in the soil by microbial activity and the rate of microbial activity is dependent upon several interrelated factors including soil moisture, temperature and organic matter. Therefore, accurate prediction of rotational crop safety is not possible. In areas of low organic matter (<2.0%) and less than 15 inches average annual precipitation, potential for crop injury may be reduced by burning or removal of crop residues, supplemental fall irrigation and deep moldboard plowing prior to planting the sensitive crop.</p>
- (2) A field bioassay is specified prior to planting any broadleaf crops that are not listed. Do not rotate to unlisted crops prior to 18 months following application without a field bioassay.

**Field Bioassay Instructions:** In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application in a manner to sample variability in field conditions such as soil texture, soil organic matter, soil pH, or drainage. The field bioassay can be initiated at any time between harvest of the treated crop and the planting of the intended rotational crop. Observe the test crop for herbicidal activity, such as poor stand (effect on seed germination), chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, do not plant the field to the test rotational crop; plant only a labeled crop or crop listed in the table below for which the rotational interval has clearly been met.

- Avoid all direct or indirect contact with non-target plants. Do not apply near desirable vegetation.
   Allow adequate distance between target area and desirable plants under conditions of application to
   minimize potential exposure.
- Crop Residues from Treated Areas: Crop residues from treated areas cannot be used for composting
  or mulching on ground where susceptible crops may be grown the following season. To promote
  herbicide decomposition, plant material should be evenly incorporated in the soil by tillage or burned.
  Adequate moisture is also required to promote breakdown of plant residues, which contain
  aminopyralid.
- **Do not move treated soil.** Avoid situations where soil particles may blow into areas where susceptible crops are grown. The hazard of movement of this product on dust is reduced if treated fields are irrigated or if rain occurs shortly after application.
- Do not apply under conditions that favor runoff or wind erosion of soil containing Milestone to non-target areas. To prevent off-site movement due to runoff or wind erosion:
  - Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, the soil surface should first be settled by rainfall or irrigation.
  - Do not apply to impervious substrates such as paved or highly compacted surfaces or frozen or snow covered ground.
  - Do not apply to soils when saturated with water.
  - Do not use tail-water from the first flood or furrow irrigation of treated fields to treat nontarget crops unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.
- Do not apply when weather conditions favor drift to non-target sites. Spray drift of Milestone to emerged soybeans or soil to which soybeans will be planted during the same growing season may cause soybean injury.
- Read and follow these Advisories to minimize drift to non-target areas.
  - Minimize drift by using sufficient spray volume to ensure adequate coverage with large-droplet size sprays.
  - Use low pressure application equipment capable of producing a large-droplet spray. Do not use nozzles that produce a fine-droplet spray. Droplet size has been shown to be the single most important factor affecting drift from ground applications.
  - While increasing droplet size does reduce the potential for spray drift, larger droplets do not eliminate drift if environmental or application conditions are inappropriate for application.
  - Use larger capacity nozzles to increase flow rate rather than increasing spray pressure.
  - Keep height of ground-driven spray booms as low as possible above the target to minimize exposure to evaporation and wind while still providing good coverage. Applications made late in the growing season with excessive boom heights drastically increase the potential for spray drift.
  - Do not apply when wind is gusting or wind speed exceeds 15 mph as uneven spray coverage and drift may result. Avoid application to border rows adjacent to susceptible crops such as soybeans, field peas, or sunflowers under windy conditions unless one of the following drift management steps is taken:
    - (1) application is made only when the wind direction is such that the susceptible crop is up-wind from the treatment area (wind blowing from the susceptible crop toward the treated crop); or
    - (2) the applicator leaves an adequate buffer zone between the treated crop and the susceptible crop and coarse or low drift nozzle configurations are used.

- A drift control or deposition agent may be used with this product to aid in reducing spray drift due to wind when making applications adjacent to susceptible crops, but may not be effective after prolonged pumping of the spray mix.
- On calm days with little or no wind, check for temperature inversions before making herbicide applications. Temperature inversions occur under calm conditions with little or no wind and air temperature increases with increasing height above the ground. Inversion conditions may be indicated by a layer of fog or mist near the ground and, under clear conditions, may be detected by use of a smoke column. A temperature inversion is indicated when smoke does not rise in a column, but layers at some level above the ground. Do not apply herbicides if temperature inversion conditions exist in the treatment area.

#### Sprayer Cleanup

To avoid injury to or exposure of non-target crops, thoroughly clean and drain spray equipment used to apply Milestone after use. Cleaning should occur as soon as possible after application of Milestone. Spray equipment should be cleaned after use with Milestone by the following procedure:

- 1. Drain any remaining Milestone from the spray tank and dispose of according to label disposal instructions.
- Hose down the interior surfaces of the tank. Flush tank, hoses, boom, and nozzles with clean water for 10 minutes. Fill the tank with water and recirculate for 15 minutes. Spray part of the mixture through the hoses, boom, and nozzles and drain the tank. All rinse water must be disposed of in compliance with local, state, and federal guidelines.
- 3. Fill the tank with water and recirculate for 15 minutes. For optimum cleaning, a tank cleaner such as liquid ammonia (1 gallon per 100 gallons of water) or other commercial tank cleaner is required in the second rinse if the spray equipment will be used on crops other than field corn. Spray part of the mixture through the hoses, boom, and nozzles and drain the tank. All rinse water must be disposed of in compliance with local, state, and federal guidelines.
- 4. Remove the nozzles and screens and clean separately.
- 5. If the spray equipment will be used on crops other than field corn, repeat steps 1 and 2 again and thoroughly wash the spray mixture from the outside of spray tank and the boom.

Expiration Date: March 31, 2013

Trademark of Dow AgroSciences LLC

R879-013

EPA accepted: 05/26/11 Replaces: R879-005

# Supplemental Labeling



**Dow AgroSciences LLC** 

9330 Zionsville Road

Indianapolis, IN 46268-1054 USA

### Milestone<sup>®</sup>

EPA Reg. No. 62719-519

For Distribution and Use Only in AL, AR, AZ, CO, FL, GA, ID, KS, KY, LA, MO, MS, MT, ND, NE, NV, NM, OK, SD, TN, TX, UT, WY

For Use on Grass Harvested for Hay Intended for Distribution or Sale Off the Farm or Ranch

For Use on Grass Harvested for Silage, Haylage, Baylage, or Green Chop
Intended for Use On the Farm or Ranch

#### **ATTENTION**

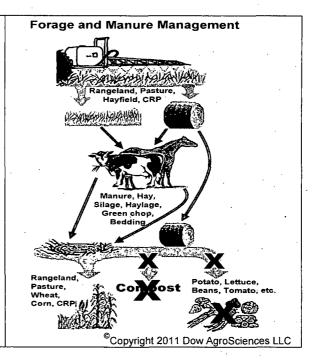
- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for Milestone<sup>™</sup> herbicide before applying. Carefully follow all
  precautionary statements and applicable use directions.
- Use of Milestone according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for Milestone.

#### 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.

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

- It is mandatory to follow the "Use Precautions and Restrictions" section of this product label.
- Manure and urine from animals consuming treated grass or forage may contain enough amnopyralid to cause injury to sensitive brodleaf plants.
- The Applicator must provide the land manager with a copy of the Dow AgroSciences Stewardship instructions regarding uses of forage from areas treated with aminopyralid.
- A printable version of the stewardship instructions can be found at www.aminopyralidstewardshipinstructions.com



- Do not use grasses treated with Milestone in the preceding 18-months for hay intended for export outside the United States.
- Do not use hay or straw from areas treated with Milestone within the preceding 18-months, or manure from animals feeding on hay treated with Milestone, in compost.
- Do not use grasses treated within the preceeding 18-months for seed production.
- Do not use on Timothy hay or other cool-season grasses grown for hay.
- Do not overseed ryegrass for 4 months after treatment.
- **Milestone is highly active against many broadleaf plant species.** Do not use this product on areas where loss of desirable broadleaf forage plants, including legumes, cannot be tolerated.
- Seeding Legumes: Do not plant forage legumes until a soil bioassay has been conducted to
  determine if aminopyralid or metsulfuron concentration remaining in the soil will adversely affect the
  legume establishment
- Grazing and Haying Restrictions: There are no restrictions on grazing or grass hay harvest following application of Milestone at labeled rates. Cutting hay too soon after spraying weeds will reduce weed control. Wait 14 days after herbicide application to cut grass hay to allow herbicide to work. Do not transfer grazing animals from areas treated with Milestone 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 aminopyralid to cause injury to sensitive 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.
- Transfer of Animals Feeding on Milestone-Treated Forage: Do not transfer animals grazing or feeding on hay from areas treated with Milestone to areas where sensitive broadleaf crop occur without first allowing 3 days of grazing on an untreated pasture. Otherwise, urine and manure may contain enough aminopyralid to cause injury to sensitive broadleaf plants.

#### 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 broadleaf crops.
- Manure from animals that have grazed forage or eaten hay harvested from aminopyralid-treated areas within the previous 3 days may only be used on pasture grasses, grass grown for seed, and wheat.
- Do not plant a broadleaf crop in fields treated in the previous year 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 residues in the soil is at 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 aminopyralid in plant residues or manure is more rapid under warm, moist soil conditions and may be accelerated by supplemental irrigation.
- **Crop Rotation:** Do not rotate non-cropland to cropland for one year following an application of Milestone. 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.
- Field Bioassay Instructions: In fields previously treated with this product, plant short test rows of the intended rotational crop 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 between harvest of the treated crop and the planting of the intended rotational crop. Observe the test crop for symptoms of herbicidal activity, such as poor stand (effect on seed germination), chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, do not plant the field to the intended rotational crop; plant only to wheat, forage grasses, native grasses or grasses grown for hay.
- Trees adjacent to or in a treated area can occasionally be affected by root uptake of Milestone
  through movement into the soil. Do not apply Milestone within the root zone of desirable trees unless
  such injury can be tolerated. Use special caution near roses, and leguminous trees such as locusts,
  redbud, mimosa, and caragana.

Expiration Date: June 1, 2014

Trademark of Dow AgroSciences LLC

R879-014 EPA accepted 05/26/11 Replaces: R879-007

## Supplemental Labeling



**Dow AgroSciences LLC** 

9330 Zionsville Road

Indianapolis, IN 46268-1054 USA

### Milestone<sup>®</sup>

EPA Reg. No. 62719-519

Rangeland, Permanent Grass Pastures, CRP Acres, Non-Cropland Areas, Non-Irrigation Ditch Banks, Natural Areas, and Grazed Areas In and Around These Sites

For Distribution and Use Only in Washington

#### **ATTENTION**

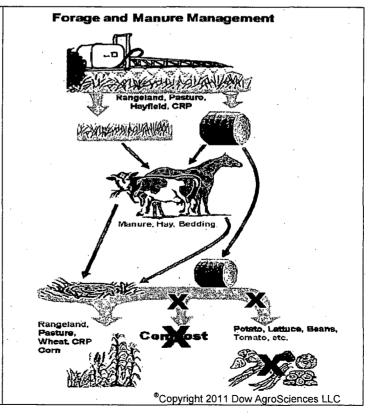
- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- This labeling must be in the possession of the user at the time of application.
- Read the label affixed to the container for Milestone<sup>™</sup> herbicide before applying. Carefully follow all
  precautionary statements and applicable use directions.
- Use of Milestone according to this supplemental labeling is subject to all use precautions and limitations imposed by the label affixed to the container for Milestone.

#### **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.

# 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.



#### **Pasture and Rangeland Restrictions**

- Do not use grasses treated with Milestone in the preceding 18-months for hay intended for export outside the United States.
- Hay from areas treated with Milestone 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 in the preceding 18-months CAN NOT be used for silage, haylage and baylage and green chop unless allowed by supplemental labeling.
- Do not move hay made from grass treated with Milestone within the preceding 18-months off farm unless allowed by supplemental labeling.
- Do not use hay or straw from areas treated with Milestone within the preceding 18-months or manure from animals feeding on hay treated with Milestone in compost.
- Do not use grasses treated with Milestone in the preceding 18-months for seed production.

Expiration Date: June 1, 2014

<sup>&</sup>lt;sup>®</sup>Trademark of Dow AgroSciences LLC