# Specimen Label



### **Specialty Herbicide**

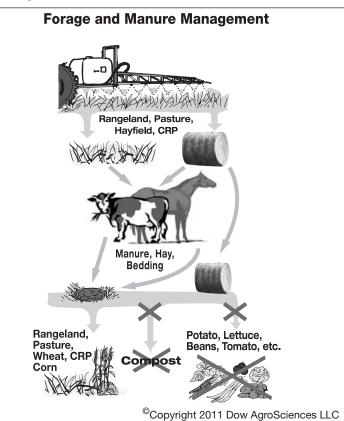
®Trademark of Dow AgroSciences LLC

For control of broadleaf weeds and certain woody plants on rangeland, permanent grass pastures (including grasses grown for hay\*), Conservation Reserve Program (CRP) acres and wildlife management areas in these sites.

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

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

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



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

Group	4	HERBICIDE
Dimethyl amine salt of	mino-3,6-dichloro	8.24%
		41.26%
Other Ingredients		

Acid Equivalents:

aminopyralid (2-pyridine carboxylic acid, 4-amino-3,6-dichloro-) – 4.28% - 0.41 lb/gal (50 g/L)

2,4-D [(2,4-dichlorophenoxy) acetic acid] - 34.25% - 3.33 lb/gal (400 g/L)

#### **PrecautionaryS tatements**

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

EPA Reg. No. 62719-628

### **DANGER**

Corrosive • Causes Irreversible Eye Damage • Harmful if Swallowed Do not get in eyes or on clothing.

#### Personal Protective Equipment (PPE)

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

## All mixers, loaders, applicators, flaggers, and other handlers must wear:

- Long-sleeved shirt and long pants
- Shoes plus socks
- · Protective eyewear
- Chemical-resistant gloves, when applying with any handheld nozzle or equipment, mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate.
- Chemical resistant apron when mixing or loading, cleaning up spills or equipment, or otherwise exposed to the concentrate

See engineering controls for additional requirements

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### **Engineering Controls Statements**

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

Pilots must use an enclosed cockpit that meets the requirements listed in the Worker Protections Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d) (4-6)].

#### **User Safety Recommendations**

Users should:

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

#### **First Aid**

If 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.

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

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**

This product is toxic to aquatic invertebrates and may be toxic to fish. Drift or runoff may adversely affect aquatic invertebrates and nontarget plants. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark except as permitted on this label. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. 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. Application around a cistern or well may result in contamination of drinking water or groundwater.

#### **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.

#### **Agricultural Use Requirements**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about Personal Protective Equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 48 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves made of any waterproof material such as natural rubber.
- Protective eyewear
- Shoes plus socks

#### **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 applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

**Entry Restrictions for Non-WPS Uses:** For applications on rangeland and permanent grass pastures, 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.

**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 material prior to use.

Pesticide Disposal: Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your state pesticide or environmental control agency, or the hazardous waste representative at the nearest EPA regional office for guidance.

#### 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 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.

#### Storage and Disposal (Cont.)

Nonrefillable containers larger than 5 gallons:

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

Triple rinse or pressure rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank 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.

#### **Product Information**

GrazonNext® HL specialty herbicide controls broadleaf weeds and certain woody plants on rangeland, permanent grass pastures (including grasses grown for hay\*), Conservation Reserve Program (CRP) acres and wildlife management areas in these sites.

\*Hay from grass treated with GrazonNext HL 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. GrazonNext HL can be used to the waters edge. Do not apply directly to water and take precautions to minimize spray drift onto water.

#### **Resistance Management Guidelines**

- Development of plant populations resistant to this herbicide mode of action is usually not a problem on rangeland, permanent grass pastures, or CRP, since these sites receive infrequent pesticide applications.
- Similar looking biotypes of a given weed species occurring in a treated area may vary in their susceptibility to a herbicide. Application of a herbicide below its specified 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.

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

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

- Do not use grasses treated with GrazonNext HL in the preceding 18-months for hay intended for export outside the United States.
- Hay from areas treated with GrazonNext HL in the preceding 18-months CANNOT be distributed or made available for sale off the farm or ranch where harvested unless allowed by supplemental labeling.
- Hay from areas treated with GrazonNext HL in the preceding 18-months CANNOT be used for silage, haylage, baylage and green chop unless allowed by supplemental labeling.

- Do not move hav made from grass treated with GrazonNext HL within the preceding 18-months off farm unless allowed by supplemental labeling.
- . Do not use hav or straw from areas treated with GrazonNext HL within the preceding 18-months or manure from animals feeding on hay treated with GrazonNext HL in compost.
- Do not use grasses treated with GrazonNext HL in the preceding 18-months for seed production.
- This product is not intended for reformulation or repackaging into other end-use products.
- 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 GrazonNext HL. Injury to crops may result if treated soil and/or runoff water containing GrazonNext HL is washed, or moved onto land used to produce crops. Exposure to GrazonNext HL 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.
- Maximum seasonal rate: Apply no more than 2.1 pints (34 fl oz) (0.87 lbs acid equivalent 2,4-D) per acre per use season.
- Use 2 or more gallons of spray solution per acre
- Do not make more than two applications per year
- Do not apply within 30 days of previous application
- If grass is to be cut for hay, Agricultural Use Requirements for the Worker Protection Standard are applicable
- Maximum Application Rate: Do not broadcast apply more than 2.1 pints (34 fl oz) per acre of GrazonNext HL per year. The total amount of GrazonNext HL applied broadcast, as a re-treatment, and/or spot treatment per year must not exceed 2.1 pints (34 fluid oz) per acre. Spot treatments may be applied at an equivalent broadcast rate of up to 4.2 pints (68 fluid oz) per acre of GrazonNext HL per annual growing season; however, not more than 50% of an acre may be treated at that rate.
- Grazing and Haying Restrictions: Do not harvest forage for hay within 7 days of GrazonNext HL application. Cutting hay too soon after spraying weeds can compromise the weed control. Wait 14 days prior to cutting grass hay to allow for maximum herbicide activity.
- Do not use this product for impregnation on dry fertilizer, unless specified in a Dow AgroSciences state specific product bulletin.
- Do not apply this product on lawns, turf, ornamental plantings, urban walkways, driveways, tennis courts, golf courses, athletic fields, commercial sod operations, or other high-maintenance, fine turfgrass areas, or similar areas.
- Transfer of Animals Feeding on GrazonNext HL Treated Forage: Do not transfer animals grazing or feeding on hay 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 aminopyralid-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 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 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.

- 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.
- Seeding grasses:
  - Preemergence: Grasses may be reseeded in the fall following an application of GrazonNext HL applied in the spring or early summer.
  - Postemergence: During the season of establishment, GrazonNext HL 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 GrazonNext HL at this stage of development. GrazonNext HL may suppress certain established grasses, such as smooth bromegrass (*Bromus inermis*), especially when plants are stressed by adverse environmental conditions. Plants should recover from this transient suppression with the onset of environmental conditions favorable to grass growth and upon release from weed competition.
- Seeding Legumes: Do not plant forage legumes until a soil bioassay has been conducted to determine if aminopyralid residues remaining in the soil will adversely affect the legume establishment.
- Crop Rotation: Do not rotate to cropland for one year following an application of GrazonNext HL. 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 starting a minimum of one year after herbicide application nad following harvest of the treated 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 hav.
- grasses or grasses grown for hay.
   GrazonNext HL 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.
- Trees adjacent to or in a treated area can occasionally be affected by root uptake of GrazonNext HL through movement into the soil. Do not apply GrazonNext HL 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.
- 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.

# Restrictions for Non-Irrigation Canal Ditchbank Application Postemergence:

Limited to 1 application per season.

Maximum of 2.1 pints (34 fluid oz)( 0.87 lbs ae)/acre per application. Minimum of 30 days between applications

Spot treatments may be applied at an equivalent broadcast rate of up to 4.2 pints (68 fluid oz) of GrazonNext HL (1.75 lbs acid equivalent) per acre per annual growing season; however, not more than 50% of an acre may be treated at that rate.

Do not use on small canals with a flow rate less than 10 cubic feet per second (CFS) where

water will be used for drinking purposes. CFS may be estimated by using the formula

below. The approximate velocity needed for the calculation can be determined by

observing the length of time that it takes a floating object to travel a defined distance.

Divide the distance (ft.) by the time (sec.) to estimate velocity (ft. per sec.). Repeat 3 times

and use the average to calculate CFS.

Average Width (ft.) x Average Depth (ft.) x Average Velocity (ft. per sec.) = CFS

#### For ditchbank weeds:

Do not allow boom spray to be directed onto water surface. Do not spray across stream to opposite bank.

#### For shoreline weeds:

Allow no more than 2 foot overspray onto water.

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

It is recommended that separate spray equipment be used on highly sensitive crops such as tobacco, soybeans, peanuts, and tomatoes. Do not use spray equipment used to apply GrazonNext HL for other applications to land planted to, or to be planted to, crops or desirable sensitive plants, unless it has been determined that all residues of this herbicide have been removed by thorough cleaning of equipment.

Equipment used to apply GrazonNext HL 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 away from water supplies.
- 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.
- Rinse the system twice with clean water, recirculating and draining each time.
- 5. Spray nozzles and screens should be removed and cleaned separately.

#### **Application Methods**

Apply the specified rate of GrazonNext HL as a coarse low-pressure spray. Do not apply this product with mist blower systems that deliver very fine spray droplets. Use of mist blower equipment can reduce weed control and increase spray drift potential.

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 provides 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 2.1 pints (34 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 rates equivalent to broadcast-applied rate of up to a maximum of 4.2 pints (68 fl oz) on 50% of the treated field. Spray volume should be sufficient to thoroughly and uniformly wet weed foliage. Repeat treatments may be made, but the total amount of GrazonNext HL applied must not exceed 2.1 pints (34 fl oz) per acre per year (see comments in the Use Precautions and Restrictions section above on Maximum Application Rate).

Table 1: Amount of GrazonNext HL herbicide (in fl oz) to mix in 3 gallon of water

## GrazonNext HL Amount (In fluid oz) To Mix In 3 Gal Of Water With Various Application Rates

	Of Water With Various Application nates			
GPA	19 fl oz/A	24 fl oz/A	34 fl oz/A	
20	2.9	3.6	5.1	
30	1.9	2.4	3.4	
40	1.4	1.8	2.6	
50	1.1	1.4	2.0	
60	1.0	1.2	1.7	
70	0.8	1.0	1.4	
80	0.7	0.9	1.3	
90	0.6	0.8	1.1	
100	0.6	0.7	1.0	

**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 GrazonNext HL (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 gallons per 1000 sq ft is equivalent to 22 gallons per acre and 2.5 gallons per 1000 sq ft is equivalent to 109 gallons per acre.

Amount of GrazonNext HL per 1000 sq ft to Equal Broadcast Rate			
Broadcast Rate		Amount of GrazonNext HL per 1000 sq ft	
(fl oz/acre)	(pt/acre)	(fl oz)	(mL)
19	1.2	0.44	13
24	1.5	0.55	16
34	2.1	0.78	23

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

To calculate the amount of GrazonNext HL 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 GrazonNext HL 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**

GrazonNext HL at rates of up to 2.1 pints (34 fl oz) per acre may be mixed with labeled rates of other labeled herbicides (such as Remedy® Ultra, Reclaim®, Surmount®, Tordon® 22K or PastureGard®) to broaden the spectrum of weeds and brush controlled or to improve control of certain weeds. GrazonNext HL 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 Mixing Precautions:**

- 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 Sprayer Clean-Out instructions.)
- 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 GrazonNext HL 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 mix 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 agent may resolve mix incompatibility.

#### Mixing with Sprayable Liquid Fertilizer Solutions

GrazonNext HL is usually compatible with liquid fertilizer solutions. It is anticipated that GrazonNext HL will not require a compatibility agent for mixing with fertilizers; however, a compatibility test (jar test) should be made prior to large scale batch 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. Use of a compatibility agent could be used to help obtain and maintain a uniform spray solution during mixing and application. When mixing GrazonNext HL in liquid fertilizer, mix GrazonNext HL in water (in a 1:1 ratio at the minimum) and add to the spray tank first, then add the liquid fertilizer to the spray tank. The lower the temperature of the liquid fertilizer, the greater the likelihood of mixing problems. Mixing GrazonNext HL 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.

#### **Suggested Mixing Procedure:**

- With continuous vigorous agitation dilute herbicide with water (1 part herbicide to 2 parts water) before adding to liquid nitrogen fertilizer solution.
- 2. Apply as soon as mixing is complete, maintaining continuous, vigorous agitation throughout mixing and application without interruption.
- Application during very cold (near freezing) weather is not advisable.
   The likelihood of mixing or compatibility problems with liquid fertilizer increases under cold conditions.
- 4. Do not store the spray mixture.

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

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

# Do not use GrazonNext HL if loss of legumes species or other broadleaf species cannot be tolerated.

GrazonNext HL may be applied postemergence as a broadcast spray or as a spot application to control weeds listed on this label; weeds other than those listed may also be controlled by this herbicide. When a rate range is given, use a higher rate in the range to control weeds at advanced growth stages or under less-than-favorable growing conditions (e.g., drought stress) or for longer residual control. Best weed control results are obtained when spray volume is sufficient to provide uniform coverage of treated plants. For optimum uptake and translocation of the herbicide, avoid mowing, haying, shredding, burning or soil disturbance in treated areas for at least 7 days following application.

For most species, 2 hours between application and rainfall provides a sufficient amount of time to avoid loss in weed control due to herbicide wash-off of the treated foliage.

GrazonNext HL also provides preemergence control of germinating seeds or emerging seedlings of susceptible weeds and re-growth of certain perennial weeds following application. Weed establishment following GrazonNext HL application will depend upon application rate, season of application, and growing condition.

GrazonNext HL can provide long-term control of weeds. The length of control is dependent upon the application rate, condition and growth stage of target weeds, environmental conditions at and following application, and the density and vigor of competing desirable vegetation. Long-term broadleaf weed control is most effective where forage grasses are allowed to recover from overgrazing, drought, etc., and compete with weeds.

GrazonNext HL 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 GrazonNext HL, it is important that vegetation management practices, including grazing management, biological control agents, replanting, fertilization, prescribed fire, reseeding with desirable plants, etc., be used to increase the competitiveness of desired forages. Used as part of an integrated management program, GrazonNext HL can serve as a catalyst for rapid improvement of rangeland, permanent grass pasture, and CRP, by alleviating the adverse competitive effect of weeds on the yield and quality of forages and other desirable plant species. Agricultural and natural resources specialists with federal and state government agencies can provide guidance on best management practices and development of integrated vegetation management systems.

#### **Broadleaf Weeds Controlled**

**Early to mid-spring applications**. GrazonNext HL can be applied at rates between 0.8 and 1.2 pints (13 to 19 fluid oz) product per acre in early to mid-spring when weeds are less than 2 inches tall; applications in this rate range are most effective when conditions are favorable for plant growth.

The following weeds will be controlled at 1.2 to 2.1 pints (19 to 34 fluid oz) product per acre. For best results, apply when weeds are actively growing and conditions are favorable for plant growth. Use a higher rate in the rate range when growing conditions are less than favorable, when weeds are mature, when weed foliage is tall and dense or when residual control is important. GrazonNext HL also provides preemergence control of germinating seeds or seedlings of susceptible weeds that emerge following application. Increasing application rate to the high end of the rate range specified will extend period of residual control.

Table 3: Broadleaf Weeds Controlled

able 3: Broadleaf Weeds Controlled  Weed Species			
Common Name	Scientific Name	Life Cycle <sup>c</sup>	Plant Family
	Rate Range: 1.2 to 1.5 pints (19 to 24 flui		
Bedstraw	Galium spp.	perennial	Rubiaceae
bedstraw, smooth	Galium mollugo	perennial	Rubiaceae
broomweed, annual <sup>a</sup>	Amphiachyris dracunculoides	annual	Asteraceae
carrot, wilda	Daucus carota	biennial	Apiaceae
Cinquefoil, hoary	Potentilla argentea	perennial	Rosaceae
cinquefoil, sulfur <sup>a,b</sup>	Potentilla recta	perennial	Rosaceae
clover, sweet	Melilotus officinalis	biennial	Fabaceae
clover, white	Trifolium repens	perennial	Fabaceae
cocklebur <sup>a</sup>	Xanthium strumarium	annual	Asteraceae
croton, woolly <sup>a,b</sup>	Croton capitatus	annual	Euphorbiaceae
crownvetch <sup>a</sup>	Securigera varia	perennial	Fabaceae
daisy, oxeye <sup>a,b</sup>	Leucanthemum vulgare	perennial	Asteraceae
falsedandelion, Carolina <sup>a</sup>	Pyrrhopappus carolinianus	annual/biennial	Asteraceae
fleabane, annual <sup>a</sup>	Erigeron annus	annual	Asteraceae
horsenettle, Carolina <sup>a,b</sup>	Solanum carolinense	perennial	Solanaceae
lettuce, prickly <sup>a</sup>	Lactuca serriola	annual	Asteraceae
pokeweed, common	Phytolacca americana	perennial	Phytolaccaceae
ragweed, common <sup>a,b</sup>	Ambrosia artemisiifolia	annual	Asteraceae
ragweed, western	Ambrosia psilostachya	perennial	Asteraceae
ragwort, tansy <sup>a,c</sup>	Senecio jacobaea	perennial	Asteraceae
sneezeweed, bittera	Helenium amarum	annual	Asteraceae
starthistle, yellow <sup>a,c</sup>	Centaurea solstitialis	annual	Asteraceae
thistle, bull <sup>a,b</sup>	Cirsium vulgare	biennial	Asteraceae
thistle, musk <sup>a,b</sup>	Carduus nutans	biennial	Asteraceae
thistle, plumeless <sup>a,b</sup>	Carduus acanthoides	biennial	Asteraceae
vervain, blue <sup>a</sup>	Verbena hastata	perennial	Asteraceae
vervain, hoary <sup>a</sup>	Verbena stricta	perennial	Asteraceae
vetch, common <sup>a</sup>	Vicia sativa	annual	Fabaceae
woodsorrel, yellow <sup>a</sup>	Oxalis stricta	perennial	Oxalidaceae
wormwood, absinth <sup>a,b</sup>	Artemisia absinthium	perennial	Asteraceae
•	Rate Range: 1.5 to 2.1 pints (24 to 34 flu	<u> </u>	
acacia spp.a,†	Acacia sp.	perennial	Fabaceae
actinomeris, wingstem	Verbesina alternifolia	perennial	Asteraceae
Beebalm, pony <sup>a,b</sup> (horse mint)	Monarda pectinata	annual	Lamiaceae
blackberry spp.a,†	Rubus sp.	perennial	Rosaceae
Blackbrush <sup>a</sup> ,†	Acacia rigidula	perennial	Fabaceae
bullnettle, Texasf	Cnidoscolus texanus	perennial	Euphorbianceae
amaranth, spiny <sup>a</sup>	Amaranthus spinosus	annual	Amaranthaceae
burdock, common <sup>a,b</sup>	Arctium minus	biennial	Asteraceae
buttercup, hairy <sup>a</sup>	Ranunculus sardous	perennial	Ranunculaceae
buttercup, tall <sup>a,b</sup>	Ranunculus acris	perennial	Ranunculaceae
camphorweed <sup>a</sup>	Heterotheca subaxillaris	annual	Asteraceae
chickweed, common <sup>a</sup>	Stellaria media	annual	Caryophyllaceae
chicory <sup>a</sup>	Cichorium intybus	perennial	Asteraceae
Coneflower, upright prairieg	Ratibida columnifera	perennial	Asterceae
cudweed, purple	Gnaphalium purpureum	annual	Asteraceae
dandelion, common <sup>a</sup>	Taraxacum officinale	perennial	Asteraceae
dock, broadleafa	Rumex obtusifolius	perennial	Polygonaceae

Table 3: Broadleaf Weeds Controlled (Cont.)

	Weed Specie		_
Common Name	Scientific Name	Life Cycle <sup>c</sup>	Plant Family
	Rate Range: 1.5 to 2.1 pints (24 to 34 fluid	oz) product per acre (Cont.)	
dock, curly <sup>a</sup>	Rumex crispus	perennial	Polygonaceae
dogfennel <sup>c</sup>	Eupatorium capillifolium	perennial	Asteraceae
evening primrose, cutleafa	Oenothera laciniata	annual	Asteraceae
false dandelion, Carolina <sup>a</sup>	Tragopogon dubius	biennial	Asteraceae
fiddleneck, common	Amsinckia intermedia	annual	Boraginaceae
fireweed	Epilobium angustifolium	perennial	Onagracee
fleabane, annual <sup>a</sup>	Erigeron annus	annual	Asteraceae
goldenrod, Canada <sup>a</sup>	Solidago canadensis	perennial	Asteraceae
goldenrod, Missouri <sup>a</sup>	Solidago missouriensis	perennial	Asteraceae
goldenrod, rigid	Solidago rigida	perennial	Asteraceae
gumweed, curlycup	Grindelia squarrosa	biennial	Asteraceae
nawkweed, orange <sup>a,b</sup>	Hieracium aurantiacum	perennial	Asteraceae
nawkweed, yellow <sup>a,b</sup>	Hieracium pratense	perennial	Asteraceae
nenbit <sup>a</sup>	Lamium amplexicaule	annual/biennial	Lamiaceae
noneylocust	Gleditsia triacanthos	perennial	Fabaceae
norehound†	Marrubium vulgare L.	perennial	Lamiaceae
norseweed <sup>a</sup>	Conyza canadensis	annual	Asteraceae
Huisache <sup>a</sup> .†	Acacia farnesiana	perennial	Fabaceae
ndigo, blue	Baptisia australies	perennial	Fabaceae
ronweed, tall	Vernonia gigantea	perennial	Asteraceae
ronweed, western	Vernonia baldwinii	perennial	Asteraceae
knapweed	Centaurea sp.	biennial	Asteraceae
knapweed, brown	Centaurea jacea	perennial	Asteraceae
knapweed, diffuse <sup>a,b</sup>	Centaurea diffusa	biennial	Asteraceae
knapweed, Russian <sup>a,b</sup>	Acroptilon repens	perennial	Asteraceae
knapweed, spotted <sup>a,b</sup>	Centaurea stoebe	biennial	Asteraceae
kudzu <sup>a,b</sup>	Pueraria montana	perennial	Fabaceae
ambsquarters, common <sup>a</sup>	Chenopodium album	annual	Chenopodiaceae
espedeza, annual	Lespedeza striata	annual	Fabaceae
Locust, black	Robinia pseudoacacia	perennial	Fabaceae
marshelder, annual <sup>a</sup>	Iva annua	annual	Asteraceae
mayweed, scentless <sup>a</sup>	Tripleurospermum perforate	annual	Asteraceae
mayweed, stinking <sup>a,b</sup>	Anthemis cotula	annual	Asteraceae
medic, black <sup>a</sup>	Medicago lupulina	perennial	Fabaceae
mesquite, honey <sup>a,†</sup>	Prosopis glandulosa	perennial	Fabaceae
Mexican-tea	Dysphania ambrosioides	annual/ perennial	Chenopodiaceae
mullein <sup>e</sup>	Verbascum spp.	biennial	Scrophulariaceae
Nightshade, silverleaf	Solanum elaeagnifolium	perennial	Solanaceae
partridgepea <sup>a</sup>	Chamaecrista fasciculata	annual	Fabaceae
plantain, broadleafa		perennial	
olantain, broadlear <sup>a</sup>	Plantago major Plantago lanceolata	perennial	Plantaginaceae Plantaginaceae
pricklyash, lime†		· ·	Fabaceae
•	Zanthoxylum fagara	perennial	
agweed, false	Parthenium hysterophorus	annual	Asteraceae
Rose, Macartney†	Rosa bracteata	perennial	Fabaceae
ose, multiflorae	Rosa multiflora	perennial	Rosaceae
sicklepod <sup>a</sup>	Senna obtusifolia	annual	Fabaceae
sida, prickly†	Sida spinosa	annual .	Malvaceae
martweed, Pennsylvania	Polygonum pensylvanicum	annual	Polygonaceae
snow-on-the-mountain†	Euphorbia marginata Pursh	annual	Euphorbiaceae
soda apple, tropical <sup>a,b</sup>	Solanum viarum	perennial	Solanaceae
sowthistle, perennial <sup>a,b</sup>	Sonchus arvensis	perennial	Asteraceae
sowthistle, prickly <sup>a</sup>	Sonchus asper	annual	Asteraceae
Spanish needles	Bidens bipinnata	annual	Asteraceae
starthistle, yellow <sup>a,b</sup>	Centaurea solstitialis	annual	Asteraceae
sumac, smooth	Rosa glabra	perennial	Anacardiaceae

Table 3: Broadleaf Weeds Controlled (Cont.)

Weed Species			
Common Name	Scientific Name	Life Cycle <sup>c</sup>	Plant Family
Rate Range: 1.5 to 2.1 pints (24 to 34 fluid oz) product per acre (Cont.)			
sunflower, common <sup>a</sup>	Helianthus annua	annual	Asteraceae
tallow tree, Chinesea,†	Triadica loureiro	perennial	Euphorbiaceae
Teasela	Dipsacus spp.	biennial	Dipsacaceae
thistle, Canada <sup>a,b</sup>	Cirsium arvense	perennial	Asteraceae
thistle, scotch	Onopordum acanthium	biennial	Asteraceae
yarrow, common <sup>a</sup>	Achillea millefolium	perennial	Asteraceae

<sup>&</sup>lt;sup>a</sup>These plants are indicated to be invasive in the USDA-NRCS, PLANTS Database (http://plants.usda.gov/index.html).

#### **Specific Use Directions**

Multiflora rose, individual plant treatment - Use 2.1 pints (34 fluid oz) of GrazonNext HL in 100 gal of water with 2 pints (32 fluid oz) or 0.25% v/v of a non-ionic surfactant. Or, 1.5 pints (24 fluid oz) of GrazonNext HL can be tank mixed with Remedy Ultra at 32 fl oz. Apply from full leaf through flowering. For best results, delay treatment for 9-12 months after mowing. Spot treatments may be applied at an equivalent broadcast rate of up to 4.2 points (68 fluid oz) of GrazonNext HL per acre per annual growing season; however, not more than 50% of an acre may be treated at that rate.

**Multiflora rose, broadcast treatment:** 1.5 to 2.1 points (24 to 34 fluid oz) per acre of GrazonNext HL can be tank mixed with Remedy Ultra at 1 pint (16 fluid oz) per acre. Apply from full leaf through flowering. For best results, delay treatment for 9-12 months after mowing.

#### **Spray Drift Management**

Avoid application under conditions that may allow spray drift because very small quantities of spray, which may not be visible, may seriously injure crops. This product should be applied only when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, 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.

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

#### **Droplet Size**

When applying sprays that contain 2,4-D as the sole active ingredient, or when applying sprays that contain 2,4-D mixed with active ingredients that require a Coarse or coarser spray, apply only as a Coarse or coarser spray (ASAE standard 572) or a volume mean diameter of 385 microns or greater for spinning atomizer nozzles.

When applying sprays that contain 2,4-D mixed with other active ingredients that require a Medium or more fine spray, apply only as a Medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

#### Wind Speed

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition and there are not sensitive areas (including, but not limited to, residential areas, bodies of water, known habitat for nontarget species, nontarget crops) within 250 feet downwind. If applying a Medium spray, leave one swatch unsprayed at the downwind edge of the treated field.

#### **Temperature Inversions**

If applying at wind speeds less than 3 mph, the applicator must determine if: a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

#### **Susceptible Plants**

Do not apply under circumstances where spray drift may occur to food, forage, or other plantings that might be damaged or crops thereof rendered unfit for sale, use or consumption. Susceptible crops include, but are not limited to, cotton, okra, flowers, fruit trees, grapes (in growing stage), fruit trees (foliage), soybeans (vegetative stage), ornamentals, sunflowers, tomatoes, beans, and other vegetables, or tobacco. Small amounts of spray drift that may not be visible may injure susceptible broadleaf plants.

#### Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of 2,4-D herbicides. Where states have more stringent regulations, they must be observed.

#### Equipment

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

#### **Aerial Application**

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.

Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. This requirement does not apply to forestry or rights-of-way applications.

When applications are made with a crosswind, the swath will be displaced downwind. The applicator must compensate for this by adjusting the path of the aircraft upwind.

#### **Ground Boom Application**

Do not apply with a nozzle height greater than 4 feet above the crop canopy.

#### Terms and Conditions of Use

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

#### **Warranty Disclaimer**

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

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

<sup>°</sup>Spot treatment at rates up to 4.2 pints (68 fl oz) per acre of GrazonNext HL may be particularly effective against dense patches of perennial broadleaf plants.

d apply during rosette stage

esee specific use directions below for multiflora rose.

fapply at flowering stage

gapply when actively growing before flowering

<sup>†</sup>Suppression only

#### **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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#### **Revisions:**

- Revise restrictions for hay and grass to specify treatment within the preceding 18-months
- 2. Add copyright to advisory graphic
- Seeding grasses Preemergence: revise to state that grasses can be reseeded in the fall following an application in the spring or early summer
- Restrictions in Hay or Manure Use: revised first bullet to specify 18 months, and made the restriction for use of mulch 3 days after grazing a standalone bullet