352-446

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

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

December 13, 2012

Edward Bockrath E.I. du Pont de Nemours and Company 1007 Market Street Wilmington, DE 19898

Subject: Label Amendment (remove minimum cereals use rate) DuPont Harmony GT XP Herbicide EPA Reg. No. 352-446 Application Dated October 15, 2012

Dear Mr. Bockrath:

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 the 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 released for shipment 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 Mindy Ondish at (703)605-0723 or at ondish.mindy@epa.gov.

Sincerely,

Kable Bo Davis Product Manager 25 Herbicide Branch Registration Division (7505P)



# DuPont<sup>™</sup> Harmony<sup>®</sup> GT XP

# herbicide

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MASTER

# DRAFT LABEL

# DUPONTIMHARMONY® GT XP HIGHLIGHTS

May be applied by ground or by air.
Wheat. Barley. Oat. Triticale. Soybeans and Field Cormmay be replanted anytime after the application of: HARMONY®GT XP 'Any other crop may be planted 45 days after the application of HARMONY®GT XP.
Certain environmental conditions, such as cool and dry or hot and humid weather, aftect the performance of HARMONY®GT XP. (See Environmental Conditions.)
Consult label text for complete instructions. Always read and follow-label directions for use.

 For selective postemergence broadleaf weed control in Wheat (including Durum wheat). Barley, Oat, Triticale Post-harvest Burndown, Pre-plant Burndown and Fallow.

Apply at the rate of 0/3 to 0.6 ounce per acre on Wheat. Barley. Triticale, Post-harvest Burndown, Pre-plant Burndown and Fallow; 0/3 to 0/4 ounce per acre on Oat (see Cereals Application Information). Apply after the crop isin the 2-leaf stage, but before the flag leaf is visible on Wheat, Barley, Triticale and Winter Oat, On Spring Oatt apply after the crop is in the 3 leaf stage, but before jointing.

Use in tank mixtures with other registered herbicides for broader spectrum weed control (see Cereals Tank Mixtures).

Soybeans • For selective postemergence broadleaf weed control in soybeans

Apply at the rate of 0.083 (1/12) ounceiper acre on conventional soybean varieties. Use up to 1/3 ounce per <u>acreton soybean varieties designated as DuPont<sup>1M</sup>STS®</u>. Include a spray additive recommended in this label: (See <u>Spray Additives</u>).

Include a mitrogen fertilizer (example: 4-8 pints of 28-0-0) (See Spray: Additives) Forsground application to optimize HARMONY@ GT

XP performance; use flat fan nozzles and apply in 10.25 gallons of water at 25-60 psi:

Apply to actively growing weeds at the recommended sizes: (See Soybeans Weeds Controlled ))

Tank mix only with pesticides specified by this or other supplemental labeling. (See Soybeans Tank Mix) <u>Applications</u>.)

For selective postemergence broadleaf weed control in com: Apply at the rate of 0:083 (1/12) ounce per acre on corn hybrids of greater than 88-days Relative Maturity. Include a spray additive recommended in this label: (See

Spray Additives) Include a nitrogen fertilizer (example: 4-8 pints of 28:0-

0): (See Spray Additives): Use in tank mixtures with other registered herbicides for broader spectrum weed control (see Com Tank

broader spectrum weed control (see Corn Tank Mixtures)

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# DuPont<sup>™</sup> Harmony<sup>®</sup> GT XP

# herbicide

# **Dry flowable**

For Use on Wheat, Barley, Oat, Triticale, Fallow, Corn, Soybeans and as a Pre-Plant or Post-Harvest Herbicide

Active Ingredients	By Weight	
Thifensulfuron-methyl		
Methyl 3-[[[(4-methoxy-		
triazin-2-yl) amino]carbo	nyl]amino]	
sulfonyl]-2-thiophenecart	75%	
Other Ingredients		25%
TOTAL		100%
EPA Reg. No. 352-446	EPA Est. No.	

Nonrefillable Container

In chimable contain

Net:

OR

**Refillable Container** 

Net:

ACC	EP	TED
DEC	13	2012
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 352-4446		

# KEEP OUT OF REACH OF CHILDREN CAUTION

HERBICIDE

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

# **FIRST AID**

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. 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 five minutes, then continue rinsing eye. 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. For medical emergencies involving this product, call tollfree 1-800-441-3637.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

Caution! Causes moderate eye irritation. Avoid contact with eyes, skin, or clothing.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

Long-sleeved shirt and long pants. Chemical Resistant Gloves, Category A, (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all  $\geq$ 14 mils. Shoes plus socks.

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.

# USER SAFETY RECOMMENDATIONS

**USERS SHOULD:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

# **ENVIRONMENTAL HAZARDS**

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

1

GROUP

# PESTICIDE HANDLING

- Calibrate sprayers only with clean water away from the well site.
- Make scheduled checks of spray equipment.
- Assure accurate measurement of pesticides by all operation employees.
- Mix only enough product for the job at hand.
- Avoid over-filling of spray tank.
- Do not discharge excess material on the soil at a single spot in the field/grove or mixing/loading station.
- Dilute and agitate excess solution and apply at labeled rates/uses.
- Avoid storage of pesticides near well sites.
- When triple rinsing the pesticide container, be sure to add the rinsate to the spray mix.

# **PRODUCT INFORMATION**

DuPont<sup>™</sup> HARMONY® GT XP herbicide may be used for selective postemergence control of certain broadleaf weeds in wheat (including durum), barley, oat, triticale, post-harvest burndown, pre-plant burndown, fallow, corn and soybeans. HARMONY® GT XP is a dry flowable granule to be mixed in water or other listed carrier and applied as a uniform broadcast spray. It is noncorrosive, nonflammable, nonvolatile and does not freeze.

#### RESTRICTIONS

Injury to or loss of adjacent sensitive crops, desirable trees or vegetation may result from failure to observe the following:

- Do not apply, drain or flush equipment on or near desirable trees or other plants or on areas where their roots may extend, or in locations where the chemical may be washed or moved into contact with their roots.
- Do not use on lawns, walks, driveways, tennis courts, or similar areas.
- · Do not allow sprays to drift to desirable plants.
- Do not apply to wheat, barley, oats or triticale crops underseeded with another crop.

#### PRECAUTIONS

Injury to or loss of adjacent sensitive crops, desirable trees or vegetation may result from failure to observe the following:

• Take all necessary precautions to avoid all direct or indirect contact (such as spray drift) with non-target plants or areas.

Carefully observe all sprayer cleanup instructions both prior to and after using this product, as spray tank residue may damage crops other than wheat, barley, oats, triticale, corn or soybeans.

For ground applications applied when dry, dusty field conditions exist, control of weeds in wheel track areas may be reduced. Soybeans, corn, and cereal varieties may differ in their response to various herbicides. DuPont recommends that you first consult your state experiment station, university, or extension agent as to sensitivity to any herbicide. If no information is available, limit the initial use of HARMONY® GT XP herbicide to a small area.

HARMONY® GT XP should not be applied to crops that are stressed by severe weather conditions, drought (including low levels of subsoil moisture), low fertility, water-saturated soil, disease, or insect damage, as crop injury may result. Risk of injury is greatest to cereals when the crop is in the 2 to 5- leaf stage. Severe winter stress, drought, disease, or insect damage following application also may result in crop injury.

For cereals under certain conditions such as heavy rainfall, prolonged cold weather (daily high temperature less than 50 Deg. F.), or wide fluctuations in day/night temperatures prior to or soon after HARMONY® GT XP application, temporary discoloration and/or crop injury may occur. To reduce the potential of crop injury, tank mix HARMONY® GT XP with 2,4-D (ester formulations perform best- see the "TANK MIXTURES IN CEREALS" section of this label) and apply after the crop is in the tillering stage of growth.

# BIOLOGICAL ACTIVITY AND ENVIRONMENTAL CONDITIONS

Best results are obtained when HARMONY® GT XP is applied to young, actively growing weeds. The use rate will depend on weed spectrum and size of weed at time of application. The degree of control and duration of effect are dependent on rate used, sensitivity and size of target weed and environmental conditions at the time of and following application.

HARMONY® GT XP stops growth of susceptible weeds rapidly. However, typical symptoms of dying weeds (discoloration) may not be noticeable for 1-3 weeks after application (2-5 weeks for wild garlic) depending on the environmental conditions and weed susceptibility. Warm, moist conditions following treatment promote the activity of HARMONY® GT XP, while cold, dry conditions delay the activity. Weeds hardened-off by cold weather or drought stress will be less susceptible.

A vigorous growing crop will aid weed control by shading and providing competition for weeds. However, a dense crop canopy at time of application can intercept spray and result in reduced weed control. Weeds may not be adequately controlled in areas of thin crop stand or seeding skips.

Applications made to weeds that are in the cotyledon stage, larger than the size indicated, or to weeds under stress may result in unsatisfactory control.

HARMONY® GT XP may injure crops that are stressed from adverse environmental conditions (such as extreme temperatures or moisture), abnormal soil conditions, or cultural practices. In addition, different varieties of the crop may have differing levels of sensitivity to treatment with HARMONY® GT XP under otherwise normal conditions. Treatment of sensitive crop varieties may injure crops.

Weed control may be reduced if rainfall or snowfall occurs soon after application. Several hours of dry weather are needed to allow HARMONY® GT XP to be sufficiently absorbed by weed foliage.

To reduce the potential of crop injury in cereals, tank mix HARMONY® GT XP with 2,4-D (ester formulations perform best-see the "TANK MIXTURES" section of this label) and apply after the crop is in the tillering stage of growth.

# **DIRECTIONS FOR USE**

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

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.

# 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 4 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, Category A, (such as butyl rubber, natural rubber, neoprene rubber, or nitrile rubber), all  $\geq 14$  mils. Shoes plus socks.

Do not apply this product through any type of irrigation system. DuPont<sup>TM</sup> HARMONY® GT XP herbicide must be used only in accordance with instructions on this label or in separately published DuPont instructions.

DuPont will not be responsible for losses or damages resulting from the use of this product in any manner not specified by DuPont.

HARMONY® GT XP is for use on wheat, barley, oat, triticale, fallow, corn, soybeans and as a pre-plant and/or post-harvest burndown herbicide in most states. Check with your state extension service or Department of Agriculture before use, to be certain HARMONY® GT XP is registered in your state.

# CEREALS, FALLOW AND PREPLANT BURNDOWN WEEDS CONTROLLED

Annual knawel Annual sowthistle Black mustard Bushy wallflower /Treacle mustard Carolina geranium Coast fiddleneck Common buckwheat Common chickweed\* Common groundsel Common lambsquarters Corn chamomile Corn spurry Cress (mouse-ear) Curly dock False chamomile Field pennycress Flixweed Green smartweed Kochia † Ladysthumb London rocket Mallow (little) Marshelder

#### Smållflower buttercup Stinking mayweed /Dogfennel Swinecress Tarweed fiddleneck Tumble/Jim Hill mustard Volunteer lentils Volunteer peas Volunteer sunflower\* Wild buckwheat\* Wild chamomile Wild garlic\* Wild mustard

Miners lettuce

Redmaids

Scentless

Mouseear chickweed

Prostrate knotweed

Redroot pigweed

Russian thistle<sup>†\*</sup>

Shepherdspurse

Pennsylvania smartweed

chamomile/mayweed

#### PARTIAL CONTROL\*\*

Common cocklebur Common sunflower Cutleaf eveningprimrose Henbit Mallow (common) Prickly lettuce\* Tansymustard\* Wild radish\*

- \* See SPECIFIC WEED PROBLEMS in the Cereals section below for more information.
- \*\*Partial control: A visual reduction of weed population as well as a significant loss of vigor for individual weed plants. For better results, use 0.5 or 0.6 ounce HARMONY® GT XP per acre and include a tank mix partner such as 2,4-D, MCPA, bromoxynil (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced"), or dicamba (such as "Banvel"/ "Clarity"), refer to the "TANK MIXTURES" section of this label.
- † Naturally occurring resistant biotypes of kochia, prickly lettuce and Russian thistle are known to occur. See the "TANK MIXTURES" and "SPECIFIC WEED PROBLEMS" sections of this label for additional details.

# FALLOW APPLICATION TIMING

# APPLICATION TIMING

Apply HARMONY® GT XP in the spring, summer or fall when the majority of weeds have emerged and are actively growing. (See the "CROP ROTATION" section of this label for additional information).

# **USE RATES**

HARMONY® GT XP may be used as a fallow treatment for burndown of emerged weeds, in combination with other suitable registered fallow herbicides (See the "TANK MIXTURES" section of this label for additional information). Apply HARMONY® GT XP at 0.3 to 0.6 ounce per acre to fallow for control or partial control of the weeds listed below. Sequential treatments of HARMONY® GT XP may be made provided the total amount of DuPont<sup>™</sup> HARMONY® GT XP applied does not exceed 1.0 ounce per acre.

# TANK MIXTURES IN FALLOW

HARMONY® GT XP, when used as a fallow treatment, should be tank mixed with other herbicides that are registered for use in fallow, including glyphosate (such as Roundup), "Landmaster" II, "Fallow Master", "RT Master", glyphosate plus 2,4-D (ester formulations work best), glyphosate plus dicamba (such as "Banvel"/ "Clarity"), 2,4-D (ester formulations work best), or dicamba (such as "Banvel"/ "Clarity") alone.

# PREPLANT BURNDOWN

For burndown of emerged weeds, broadcast applications of HARMONY® GT XP may be applied before wheat (including durum), barley, oat, triticale, soybeans and field corn plants emerge. Before planting any other crop (such as sugarbeets, canola, rice, or grain sorghum) apply HARMONY® GT XP as a burndown treatment at least 45 days prior to planting. (See the "CROP ROTATION" section of this label for additional information).

Apply HARMONY® GT XP as burndown treatment in cotton when a majority of weeds have emerged. Allow at least 7 days after application before planting cotton. Allow at least 5 months between application of HARMONY® GT XP and cotton harvest.

#### **USE RATES**

HARMONY® GT XP may be used as a burndown treatment prior to planting any crop; or shortly after planting, but prior to emergence of, wheat (including durum), barley, oat, triticale, soybeans and field corn (See the "APPLICATION TIMING" section of this label for restriction on planting intervals).

Apply HARMONY® GT XP at 0.3 to 0.6 ounce per acre for control or partial control of the weeds listed below, except when planting to cotton where HARMONY® GT XP can be applied at 0.2 to 0.33 ounce per acre. Use the 0.6 ounce per acre rate when weed infestation is heavy and predominantly consists of those weeds listed under the "WEEDS PARTIALLY CONTROLLED" section of this label, or when application timing and environmental conditions are marginal. Sequential treatments of HARMONY® GT XP may also be made provided the total amount of HARMONY® GT XP applied during one season does not exceed 1.0 ounce per acre.

HARMONY® GT XP should be applied in combination with other suitable registered preplant burndown herbicides (See the "TANK MIXTURES" section of this label for additional information).

# TANK MIXTURES IN PRE-PLANT BURNDOWN APPLICATIONS

HARMONY® GT XP may be used as a pre-plant burndown / treatment alone or tank mixed with other herbicides that are registered for use as a pre-plant burndown product, including glyphosate (such as Roundup), "Landmaster" II, "Fallow Master", "RT Master", glyphosate plus dicamba (such as "Banvel"/ "Clarity") or dicamba (such as "Banvel"/ "Clarity") alone.

# Pre-plant or at-planting burndown in cotton, field corn, rice, grain sorghum, and soybeans

HARMONY® GT XP herbicide may be used as part of a preplant or at-planting burndown treatment, in combination with other suitable registered herbicides.

Read and follow all manufacturers label recommendations for the companion herbicide. If those recommendations conflict with this label, do not tank mix the herbicide with HARMONY® GT XP.

In fields to be planted to cotton, apply HARMONY® GT XP at 0.2 to 0.33 ounce per acre. Allow at least 7 days between application and planting of cotton. In fields to be planted to field corn, grain sorghum, rice or soybeans, apply HARMONY® GT XP at 0.3 to 0.6 ounce per acre for control or partial control of the weeds listed on the EPA registered label. Include a nonionic surfactant, petroleum based crop oil concentrate, or vegetable-seed oil based product (methylated seed oils are considered a vegetable seed-based oil).

 If another herbicide is tank mixed with HARMONY® GT XP to increase the broadleaf weed spectrum, select adjuvants based on the adjuvant limitations of the companion herbicide.

#### SPRAY ADJUVANTS

#### Nonionic Surfactant (NIS)

Apply at a rate (concentration) of 0.25-0.5% v/v (1-2 qt per 100 gal spray solution). Use the higher rate in hot and dry conditions to enhance control.

#### **Crop Oil Concentrate**

Under dry conditions or during cool weather, a petroleum based crop oil concentrate, or vegetable-seed oil-based product may be used in place of a nonionic surfactant at 1-2 gallon/100 gal of spray solution (1-2% v/v) to enhance weed control. Use a petroleum-based crop oil concentrate with at least 14% emulsifiers/ surfactant and 80% oil.

#### **Ammonium Nitrogen Fertilizer**

An ammonium nitrogen fertilizer can be added to a surfactant or a crop oil concentrate to enhance control. Alternatively, a high quality, sprayable grade of ammonium sulfate (21-0-0) may be used.

#### IMPORTANT PRECAUTIONS

Seedling disease, nematodes, cold weather, deep planting (more than 2"), excessive moisture, high salt concentration, and/or drought may weaken cotton seedlings and increase the possibility of crop injury. Cotton resumes normal growth once favorable growing conditions return.

#### RESTRICTIONS

- This product is limited to ground application only in the State of New York. DO NOT apply by air in that state.
- · DO NOT apply after planting sorghum or rice.
- DO NOT apply later than 7 days before planting cotton.
- DO NOT allow livestock to graze on, or feed forage, hay or straw from treated soybean fields.

- DO NOT make more than one pre-plant or at-planting application of DuPont<sup>™</sup> HARMONY® GT XP to field corn, rice, sorghum, or soybeans per growing season.
- DO NOT apply more than 0.6 oz. of HARMONY® GT XP to rice or grain sorghum pre-plant or at-planting.
- DO NOT apply more than 0.6 oz. HARMONY® GT XP per acre per growing season to field corn or soybeans. Application(s) to these crops can be made pre-plant/atplanting, and/or postemergence.

Refer to the EPA registered label for specific post-emergence use directions.

# CEREALS

#### **APPLICATION TIMING**

#### Wheat (Including Durum), Barley, Triticale and Winter Oat

Make applications after the crop is in the 2-leaf stage, but before the flag leaf is visible.

#### Spring Oat

Make applications after the crop is in the 3-leaf stage, but before jointing. Do not use on "Ogle", "Porter" or "Premier" varieties since crop injury can occur.

#### USE RATES

If predominant weed(s) in field is (are) one of those listed in WEEDS PARTIALLY CONTROLLED table below, always include a tank mix partner (refer to TANK MIXTURES).

#### Wheat, Barley and Triticale

Apply 0.5 ounce HARMONY® GT XP herbicide per acre to wheat (including durum), barley or triticale for control or partial control of the weeds listed below.

Use 0.6 ounce HARMONY® GT XP per acre when weed infestation is heavy and predominately consists of those weeds listed under partial control, or when application timing and environmental conditions are marginal (refer to the "APPLICATION TIMING" and "PRODUCT INFORMATION" sections of this label).

Use 0.3 ounce HARMONY® GT XP per acre when weed infestation is light and predominately consists of those weeds listed under weeds controlled, and when optimum application conditions occur.

Sequential treatments of HARMONY® GT XP may be made provided the total amount of HARMONY® GT XP applied to the crop does not exceed 1.0 ounce per acre.

#### Oat (Spring and Winter)

Apply 0.3 to 0.4 ounce HARMONY® GT XP per acre for control of the weeds listed in WEEDS CONTROLLED table.

If predominant weed(s) in field is(are) one of those listed in WEEDS PARTIALLY CONTROLLED table below, always include a tank mix partner (refer to TANK MIXTURES). Do not make more than one application of HARMONY® GT XP per crop season on oat.

#### SPECIFIC WEED PROBLEMS

**Common chickweed and wild buckwheat:** For best results, apply a minimum of 0.5 ounce HARMONY® GT XP per acre plus surfactant when all or the majority of weeds have germinated and are past the cotyledon stage. Weeds should be less than 3 inches tall or across at the time of HARMONY® GT XP application.

Kochia: Naturally occurring biotypes resistant to HARMONY® GT XP are known to occur. For best results, use HARMONY® GT XP in a tank mix with Starane, Starane + Salvo, Starane + Sword, dicamba (such as "Banvel"/ "Clarity") and 2,4-D or MCPA (ester or amine), or bromoxynil containing products (such as "Buctril", "Bison", "Bronate", "Bronate Advanced" or "Widematch").

HARMONY® GT XP should be applied in the spring when kochia are less than 2" tall and are actively growing (refer to the "TANK MIXTURES" section of this label for additional details on rates and restrictions).

**Tansymustard:** For best results, use 0.5 to 0.6 ounce HARMONY® GT XP per acre plus 2,4-D or MCPA. Refer to the TANK MIXTURES section of this label for more information.

Russian thistle, Prickly lettuce: Naturally occurring biotypes resistant to HARMONY® GT XP of these weeds are known to occur. For best results, use HARMONY® GT XP in a tank mix with dicamba (such as "Banvel"/ "Clarity") and 2,4-D or MCPA (ester or amine), or bromoxynil containing product (such as "Buctril", "Bison", "Bronate", "Bronate Advanced" or "Rhino") and 2,4-D (3/4 - 1 pint "Buctril" + 1/4 - 3/8 lb active 2,4-D ester).

HARMONY® GT XP should be applied in the spring when Russian thistle, and prickly lettuce are less than 2" tall or 2" across and are actively growing (refer to the "TANK MIXTURES" section of this label for additional details on rates and restrictions).

Wild garlic: For best results, apply 0.5 to 0.6 ounce HARMONY® GT XP per acre plus surfactant when wild garlic plants are less than 12 inches tall with 2 to 4 inches of new growth. For severe infestations, use the 0.6 ounce per acre rate of HARMONY® GT XP. Control may be reduced when plants are hardened-off by cold weather and/or drought stress. Control is enhanced when applications are made during warm temperatures to actively growing wild garlic plants. Typical symptoms of dying wild garlic plants (discoloration and collapse) may not be noticeable for 2-5 weeks.

Thorough coverage of all garlic plants is essential.

Tank mixes of HARMONY® GT XP plus metribuzin may result in reduced control of wild garlic.

Wild radish: For best results, apply 0.5 to 0.6 ounce HARMONY® GT XP per acre plus surfactant either in the fall or spring to wild radish rosettes less than 6 inches in diameter. Applications made later than 30 days after weed emergence will result in partial control. Fall applications should be made prior to hardening-off of plants.

SU / IMI Tolerant Volunteer Sunflowers : Control may not be adequate because varieties resistant to SU and IMI products (like DuPont<sup>™</sup> EXPRESS®, "Beyond", "Pursuit", "Raptor") are under development. For best results, use DuPont<sup>™</sup> HARMONY® GT XP in a tank mix with Starane, Starane + Salvo, Starane + Sword, dicamba (such as "Banvel"/ "Clarity") and 2,4-D or MCPA (ester or amine), or bromoxynil containing products (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced").

# TANK MIXTURES

Read and follow all manufacturers' label instructions for any companion herbicides, fungicides, and/or insecticides. If those instructions conflict with this label, do not tank mix that product with HARMONY® GT XP. Read and follow all label instructions on timing, precautions, and warnings for any companion products before using these tank mixtures. Follow the most restrictive labeling.

#### With 2,4-D (amine or ester) or MCPA (amine or ester)

HARMONY® GT XP may be tank mixed with the amine and ester formulations 2,4-D and MCPA herbicides for use on wheat, barley, oat, triticale or fallow.

For best results in the Red River Valley and adjacent areas of North Dakota and Minnesota, add the ester formulations of 2,4-D or MCPA herbicides to the tank at 3/8 lb active ingredient (such as 3/4 pint of a 4 lb/gal product, 1/2 pint of a 6 lb/gal product). No additional surfactant is needed with this mixture.

For best results, in other areas, add the ester formulations of 2,4-D or MCPA herbicides to the tank at 1/4 to 3/8 lb active ingredient (such as 1/2-3/4 pint of a 4 lb/gal product, 1/3-1/2 pint of a 6 lb/gal product). Nonionic surfactant may be added to the mixture at 1/2 to 1 quart per 100 gal of spray solution (0.125 to 0.25% v/v); however, adding nonionic surfactant may increase the potential for crop injury, especially at the higher phenoxy rates. Higher rates of 2,4-D or MCPA may be used, but do not exceed the highest rate allowed by those respective labels.

#### With dicamba (such as "Banvel"/"Clarity")

HARMONY® GT XP may be tank mixed with 1/16 to 1/8 lb active ingredient dicamba (such as 2-4 fluid ounces "Banvel" or 2-4 fluid ounces "Clarity"). Use higher rates when weed infestation is heavy. Nonionic surfactant may be added to the mixture at 1/2 to 1 quart per 100 gal of spray solution (0.125 to 0.25% v/v); however, adding nonionic surfactant may increase the potential for crop injury. Refer to the specific dicamba label for application timing and restrictions. Tank mixes of HARMONY® GT XP plus dicamba may result in reduced control of some broadleaf weeds.

#### With 2,4-D (amine or ester) and "Banvel"/"Clarity"

HARMONY® GT XP may be applied in a 3-way tank mix with formulations of dicamba and 2,4-D or MCPA. Make application of HARMONY® GT XP plus 1/16 to 1/8 lb active ingredient dicamba (such as 2-4 fluid ounces "Banvel" or 2-4 fluid ounces "Clarity") plus 1/4-3/8 lb active ingredient 2,4-D or MCPA ester or amine per acre. Use higher rates when weed infestation is heavy. Nonionic surfactant may be added to the mixture at 1/2 to 1 quart per 100 gal of spray solution (0.125 to 0.25% v/v); however, adding nonionic surfactant may increase the potential for crop injury. Apply this three-way combination to winter wheat and winter oat after the crop is tillering and prior to jointing (first node). In Spring Wheat (including Durum) and Spring Oat, apply after the crop is tillering and before it exceeds the 5-leaf stage.

In Spring Barley, apply after the crop is tillering and before it exceeds the 4-leaf stage.

#### With Bromoxynil containing products (such as ''Buctril'', ''Bison'', ''Bronate'', ''Bronate Advanced'' or ''Rhino)

HARMONY® GT XP may be tank mixed with bromoxynil containing herbicides registered for use on wheat, barley or triticale. For best results, add bromoxynil containing herbicides to the tank at 3/16 - 3/8 lb active ingredient per acre (such as "Bronate" or "Bison" at 3/4 - 1 1/2 pt per acre). Note that tank mixes of HARMONY® GT XP plus bromoxynil may result in reduced control of Canada thistle.

#### With "Starane", "Starane + Salvo", "Starane + Sword"

For improved control of Kochia (2-4" tall) HARMONY® GT XP may be tank mixed with 1/3 to 1 1/3 pints per acre of Starane, 2/3 to 2 2/3 pints per acre of Starane + Salvo, 3/4 to 2 3/4 pints per acre of Starane + Sword.

2,4-D and MCPA herbicides (preferably ester formulations) may be tank mixed with HARMONY® GT XP plus Starane. Consult local guidance and the "TANK MIXTURES" section of this label for additional information.

#### With "Maverick"

HARMONY® GT XP can be tank mixed with "Maverick" herbicide for improved control of weeds in wheat. Refer to the "Maverick" label for information regarding use restrictions, labeled crops, rotational cropping intervals, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. Do not use the tank mix if any restrictions on the "Maverick" label conflict with the instructions on the DuPont herbicide label.

#### With "Aim"

HARMONY® GT XP can be tank mixed with "Aim" herbicide for improved control of weeds in wheat and barley. Refer to the "Aim" label for information regarding use restrictions, labeled crops, rotational cropping intervals, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. Do not use the tank mix if any restrictions on the "Aim" label conflict with the instructions on the DuPont herbicide label.

#### With "Stinger" or "Curtail" or "Curtail M" or "Widematch"

HARMONY® GT XP can be tank mixed with "Stinger" or "Curtail" or "Curtail M" or "WideMatch" herbicide for improved control of weeds in wheat and barley. Refer to the "Stinger" or "Curtail" or "Curtail M" or "WideMatch" labels for information regarding use restrictions, labeled crops, rotational cropping intervals, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. Do not use the tank mix if any restrictions on the "Stinger" or "Curtail" or "Curtail M" or "WideMatch" labels conflict with the instructions on the DuPont herbicide label.

#### With DuPont<sup>™</sup> EXPRESS® or EXPRESS® XP Herbicide

HARMONY<sup>®</sup> GT XP may be tank mixed with EXPRESS<sup>®</sup> or EXPRESS<sup>®</sup> XP based on local guidance.

#### With DuPont<sup>™</sup> ALLY® or ALLY® XP Herbicide

HARMONY® GT XP may be tank mixed with ALLY® or ALLY® XP based on local guidance.

#### With "Assert" Herbicide or "Avenge" Herbicide

DuPont<sup>™</sup> HARMONY<sup>®</sup> GT XP can be tank mixed with "Avenge" or "Assert". When tank mixing HARMONY<sup>®</sup> GT XP with "Assert", always include another broadleaf weed herbicide with a different mode of action (for example 2,4-D ester, MCPA ester, or bromoxynil (such as "Buctril", "Bison", "Bronate" or "Bronate Advanced"). Applications of HARMONY<sup>®</sup> GT XP plus "Assert" may cause temporary crop discoloration, stunting, or injury when heavy rainfall occurs shortly after application.

#### With "Discover NG"

HARMONY® GT XP can be tank mixed with "Discover NG" herbicide for improved control of weeds in spring wheat. Refer to the "Discover NG" label for information regarding use restrictions, labeled crops, rotational cropping intervals, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. Do not use the tank mix if any restrictions on the "Discover NG" label conflict with the instructions on the DuPont herbicide label.

#### With "Everest"

HARMONY® GT XP can be tank mixed with "Everest" herbicide for improved control of weeds in spring wheat. Refer to the "Everest" label for information regarding use restrictions, labeled crops, rotational cropping intervals, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. Do not use the tank mix if any restrictions on the "Everest" label conflict with the instructions on the DuPont herbicide label.

#### With "Hoelon"

A tankmix of "Hoelon" 3EC herbicide + HARMONY® GT XP herbicide can be applied for annual ryegrass (in the Pacific Northwest only), wild oat and broadleaf weed control in winter and spring wheat, and spring barley. The "Hoelon" 3EC herbicide rate should be 2 2/3 pints per acre with up to 0.5 ounce per acre HARMONY® GT XP herbicide in spring and winter wheat.

A three-way tankmix of "Hoelon" 3EC herbicide + "Buctril" herbicide + HARMONY® GT XP herbicide can be applied for annual ryegrass (in the Pacific Northwest only), wild oat and broadleaf weed control in winter and spring wheat, and spring barley. The "Hoelon" 3EC herbicide rate should be 2 2/3 pints per acre with up to 0.5 ounce per acre HARMONY® GT XP herbicide in winter wheat (up to 0.4 ounce per acre in spring wheat and spring barley). "Buctril" herbicide should be used at 1 pint per acre.

This tank mixture should only be used under good soil moisture conditions when wild oats are in the 1 to 4 leaf stage. Reduced control of foxtail is likely when tank mixing "Hoelon" with HARMONY® GT XP herbicide. When foxtail is the major grassy weed in the field, DO NOT tank mix "Hoelon" 3EC herbicide + HARMONY® GT XP herbicide - Use sequential treatments. Be sure to follow all use directions, warnings and cautions on the EPA approved "Hoelon" 3EC and "Buctril" labels.

#### With "Achieve"

HARMONY® GT XP can be tankmixed with "Achieve" for wild oat control. This tankmix may also include 2,4-D ester, MCPA ester, bromoxynil or bromoxynil/MCPA for greater spectrum of broadleaf control - see "Achieve" label for specific use directions and restrictions on tank mixes.

To minimize the reduction in wild oat control, use the higher rates of "Achieve" when using rates of HARMONY® GT XP greater than 0.3 ounce per acre.

Note: Green foxtail, yellow foxtail, Persian darnel and other grass weeds will not be controlled by this tankmix.

Read and follow all label instructions on tank mixes, application timing, precautions, and warnings on the "Achieve" label. *With "Puma"* 

HARMONY® GT XP herbicide can be tankmixed with "Puma" 1EC for control of some annual grass weeds. This tankmix may also include MCPA ester, bromoxynil or bromoxynil/MCPA for greater spectrum of broadleaf control - see "Puma" 1EC label for specific use directions and restrictions on tank mixes.

Read and follow all label instructions on the EPA approved "Puma" 1EC label for tank mixes, application timing, precautions, and restrictions. If those instructions conflict with this label, do not tank mix the product with HARMONY® GT XP herbicide.

#### With "Tiller"

HARMONY® GT XP can be tankmixed with "Tiller" for green foxtail, foxtail millets and volunteer corn control. Refer to the "Tiller" label for information regarding use restrictions, labeled crops, rotational cropping intervals, sprayer cleanup, use precautions and other information. The most restrictive provisions on either label will apply. Do not use the tank mix if any restrictions on the "Tiller" label conflict with the instructions on the DuPont herbicide label.

# With "ACHIEVE" and "STARANE" herbicides for wild oat control in wheat and barley

HARMONY® GT XP can be tank mixed with "Achieve" 40 DG and "Starane" herbicides for improved control of wild oat in wheat and barley.

For best results, when tank mixed with "Achieve" and "Starane", do not use less than 0.5 ounce HARMONY® GT XP per acre.

Tank mix HARMONY® GT XP with 0.62 ounce per acre (0.24 pounds active ingredient per acre) "Achieve" 40 DG for wild oat control. This tank mix should also include 0.5 pints per acre of "Starane" for a greater spectrum of broadleaf weed control.

**Note**: Green foxtail, yellow foxtail, Persian darnel and other grass weeds will not be controlled by this tank mix.

For postemergence applications, apply to young, actively growing weeds after crop emergence. Typically, small weeds (less than 1" in height or diameter) that are actively growing at application are most easily controlled.

Refer to the "Achieve" 40 DG, "Starane", and HARMONY® GT XP labels for information regarding use restrictions, labeled crops, rotational cropping recommendations, sprayer cleanup, use precautions and other information. The most restrictive provisions on any tank mix partner label will apply. Do not use the tank mix if any restrictions on the "Achieve" or "Starane" label conflict with recommendations on the DuPont herbicide label.

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#### With Other Grass Control Products

DuPont<sup>™</sup> HARMONY® GT XP can be tankmixed with grass control products. Antagonism generally does not occur. However, DuPont recommends that you first consult your state experiment station, university, or extension agent, Agricultural dealer, or DuPont representative as to the potential for antagonism before using the mixture. If no information is available, limit the initial use of HARMONY® GT XP and the grass product to a small area.

#### With Fungicides

HARMONY® GT XP may be tank mixed or used sequentially with fungicides registered for use on cereal grains.

#### With Insecticides

HARMONY® GT XP may be tank mixed or used sequentially with insecticides registered for use on cereal grains.

However, under certain conditions (drought stress, cold weather, or if the crop is in the 2-4 leaf stage), tank mixes or sequential applications of HARMONY® GT XP with organophosphate insecticides (such as "Lorsban") may produce temporary crop yellowing or, in severe cases, crop injury. The potential for crop injury is greatest when wide fluctuations in day/night temperatures occur just prior to or soon after application. Test these mixtures in a small area before treating large areas.

Do not apply HARMONY® GT XP within 60 days of crop emergence where an organophosphate insecticide has been applied as an in-furrow treatment because crop injury may result.

#### Do not use HARMONY® GT XP plus "Malathion" because crop injury will result.

#### With Liquid Nitrogen Solution Fertilizer

Liquid nitrogen fertilizer solutions may be used as a carrier in place of water. Run a tank mix compatibility test before mixing HARMONY® GT XP in fertilizer solution.

HARMONY® GT XP must first be slurried with water and then added to liquid nitrogen solutions (e.g., 28-0-0, 32-0-0). Ensure that the agitator is running while the HARMONY® GT XP is added. Use of this mixture may result in temporary crop yellowing and stunting.

If using low rates of liquid nitrogen fertilizer in the spray solution (less than 50% of the spray solution volume), the addition of surfactant is necessary. Add surfactant at 1/2 pint -1 quart per 100 gal of spray solution (0.06 - 0.25% v/v) based on local guidance.

When using high rates of liquid nitrogen fertilizer in the spray solution, adding surfactant increases the risk of crop injury. Consult your agricultural dealer, consultant, fieldsman, or DuPont representative for specific instructions before adding an adjuvant to these tank mixtures.

If 2,4-D or MCPA is included with HARMONY® GT XP and the fertilizer mixture, ester formulations tend to be more compatible (See manufacturer's label). Additional surfactant may not be needed when using HARMONY® GT XP in tank mix with 2,4-D ester or MCPA ester and liquid nitrogen fertilizer solutions. Consult your agricultural dealer, consultant, field advisor, or DuPont representative for specific instructions before adding an adjuvant to these tank mixtures.

Note: In certain areas east of the Mississippi river unacceptable crop response may occur with use of straight or dilute nitrogen fertilizer carrier solutions where cold temperatures or widely fluctuating day/night temperatures exist. In these areas consult your agricultural dealer, consultant, field advisor, or DuPont representative for specific instructions before using nitrogen fertilizer carrier solutions.

Liquid nitrogen fertilizer solutions that contain sulfur can increase crop response.

Do not use low rates of liquid fertilizer as a substitute for a surfactant.

Do not use with liquid fertilizer solutions with a pH less than 3.0.

# SOYBEANS APPLICATION TIMING (POST EMERGENCE)

HARMONY® GT XP herbicide may be applied to soybeans any time after the first trifoliate has expanded fully. Apply no later than 60 days before harvest.

Early-season soybean injury may result from tank-mix applications with other registered herbicides. Injury may manifest itself as stunting (seen as a reduction in leaf size or internode length), yellowing leaves and/or red veins, and necrosis in the leaves and petioles. The potential for soybean injury is most pronounced with applications made during hot, humid conditions, under widely fluctuating weather or temperature conditions, or with applications to soybeans under stress.

#### USE RATES IN SOYBEANS

Make a single application of HARMONY® GT XP at a rate of 0.083 (1/12) ounce per acre for selective postemergence broadleaf weed control on conventional soybean varieties.

HARMONY® GT XP at up to 1/3 ounce per acre may be used on soybeans designated DuPont<sup>™</sup> STS®. Severe injury or death of soybeans will result if any soybeans not designated as STS® are treated with more than 1/12 ounce of HARMONY® GT XP. Multiple applications of HARMONY® GT XP may be applied to STS® soybeans provided no more than a total of 1/3 ounce is applied per season.

#### SPRAY ADDITIVES

Applications of HARMONY® GT XP in soybeans must include a nonionic surfactant or crop oil concentrate, and an ammonium nitrogen fertilizer. See SPRAY ADJUVANTS.

# WEEDS CONTROLLED

When applied to soybeans as directed, DuPont<sup>™</sup> HARMONY® GT XP will control the following weeds:

Weeds Controlled	Maximum Size (inches) at Application	
<u></u>		
Annual Smartweeds	6	
Lambsquarters		
Pigweed		
Rough (red root)	12	
Other species		
Velvetleaf	6	
Wild Mustard	up to 4" in dia.	
Partial Control*	Maximum Size (inches) at Application	
Cocklebur	6	
Jimsonweed	4	
Wild Sunflower	. 6	

\*Partial Control: A visual reduction of weed population as well as a significant loss of vigor for individual weed plants.

See WEEDS CONTROLLED in the CEREALS, FALLOW AND PREPLANT BURNDOWN section for a listing of weeds controlled using applications of 1/3 oz of this product in STS® soybeans.

# TANK MIXTURES IN SOYBEANS

Harmony GT XP may be tank mixed with full or reduced rates of other products registered for use in soybeans. However, DuPont will not warrant crop safety or weed control of HARMONY® GT XP tank mixtures with any other pesticide or spray adjuvant except as specified in this label or other DuPont supplemental labeling or technical bulletins.

Do not tank mix HARMONY® GT XP with organophosphate insecticides, or apply HARMONY® GT XP within 14 days before or after an application of an organophosphate insecticide, as severe crop injury may occur.

#### With Postemergence Grass Herbicides

HARMONY® GT XP may be tank mixed with postemergence grass herbicides such as DuPont™ ASSURE® II herbicide

With postemergence grass herbicides, surfactant rate (concentration) should be 1-2 pints per 100 gallons of spray solution (0.125%-0.25% v/v concentration). Use of a higher rate of nonionic surfactant, particularly under hot, humid conditions, may result in temporary crop injury. Do not use crop oil concentrate when tank mixing HARMONY® GT XP herbicide with postemergence grass herbicides unless specified on other DuPont supplemental labeling. Include a nonionic surfactant with the tank mix of HARMONY® GT XP and post grass herbicides such as ASSURE® II herbicide.

#### With "PURSUIT" DG herbicide for postemerge broadleaf weed control in soybeans for use in the State of North Dakota

This tank mix is labeled for the control of broadleaf weeds only. Different control measures should be used to control grassy weeds, such as an application of DuPont<sup>™</sup> ASSURE® II Herbicide 1 day before or 7 days after applying HARMONY® GT XP plus "PURSUIT" DG. Conversely, a soil applied preemerge grass herbicide may be used in a planned weed control program with HARMONY® GT XP plus "PURSUIT" DG.

A tank mix of 1/12 ounce/acre of HARMONY® GT XP plus 1.08 ounce/acre "PURSUIT" DG is recommended for postemerge control of the broadleaf weeds listed in the table below. Best results are obtained when the HARMONY® GT XP plus "PURSUIT" DG tank mix is applied to weeds that are young (after the first true leaves have expanded, but before they exceed the size indicated in the table below) and actively growing. Applications made to weeds that are in the cotyledon stage, larger than the size indicated below, or to weeds under stress (weather, herbicide, or other) may result in unsatisfactory control.

#### WEEDS CONTROLLED SIZE (Height in Inches)

Cocklebur	2 - 4
Lambsquarters	2 - 4
Nightshade	· · ·
black	1-3
eastern black	1 - 3
hairy	1 - 3
Pigweed	
rough (redroot)	2 - 12
other pigweed species	2 - 8
waterhemp species	2 - 8
Smartweeds, annual	2 - 6
Velvetleaf	2 - 6
Wild mustard	up to 4 (diameter)

Apply after the first trifoliate of the soybean plant has fully expanded. Applications of HARMONY® GT XP plus "PURSUIT" DG tank mixes must be made before soybeans have begun to flower. There should be an interval of at least 85 days between an application of "PURSUIT" DG and soybean harvest.

The soybeans should be free from stress and actively growing at the time of application. Stress may be caused by abnormally hot or cold weather, growing conditions such as drought or watersaturated soil, disease, soil nutrient deficiencies such as iron chlorosis, or injury from nematodes, insects, or prior herbicide applications.

Applications of HARMONY® GT XP plus "PURSUIT" DG may shorten stem internodal length and cause temporary crop injury. Crop response may be increased when applications are made to soybeans that are under stress.

#### **ADJUVANTS**

Postemerge applications of DuPont<sup>™</sup> HARMONY® GT XP tank mixed with "PURSUIT" DG must include the addition of a nonionic surfactant and ammonium nitrogen fertilizer.

- A nonionic surfactant must be included at the rate of 1 pint per 100 gallons of solution (0.125% v/v concentration). Do not use "DASH" or "SUNIT-II"
- Use a high quality liquid nitrogen fertilizer such as 28-0-0 at a rate of 4 8 pints per acre, or 10-34-0 at a rate of 2 4 pints per acre. Use the lower rate for spray volumes less than 15 gallons per acre. Alternately, a high-quality, sprayable grade of ammonium sulfate (21-0-0) may be used at a rate of 2 4 pounds per acre.

**Broadcast Application:** Use flat fan nozzles at 25-60 psi. Do not use flood, hollow cone, rain drop, whirl chamber or controlled droplet applicator (CDA) type nozzles as unacceptable crop injury, excessive spray drift, or poor weed control may result. Use 10-25 gallons of water per acre. For proper spray coverage, adjust the boom and nozzle height according to the specifications listed by the nozzle manufacturer.

**Band Application**: For band application, use proportionately less spray mixture. To avoid crop injury, carefully calibrate the band applicator not to exceed the labeled rate. Carefully follow the manufacturer's instructions for nozzle types (flat fan nozzles preferred), nozzle orientation, distance of nozzles from the crop and weeds, spray volumes, calibration, and spray pressure.

Aerial Application: Use nozzle types and arrangements that will provide for optimum spray distribution and maximum coverage at 5 to 10 GPA. Do not apply during a temperature inversion condition, when winds are gusty, or when other conditions will favor poor coverage and/or off target spray movement. Use a minimum of 5 gallons of water per acre. Consult the respective product labels for special directions for aerial application.

#### **ROTATIONAL CROP GUIDELINES**

Any crop may be planted 45 days after an application of HARMONY® GT XP. Refer to the "PURSUIT" DG labels for guidelines on planting rotational crops following its use. Follow the maximum time interval listed on the respective labels prior to planting a rotational crop. The most restrictive time interval shall apply.

#### **RESTRICTIONS AND LIMITATIONS (Partial List)**

Refer to the HARMONY® GT XP and "PURSUIT" DG labels for additional use directions, use restrictions, and precautions. The most restrictive provision on either label will apply.

Sequential applications of HARMONY® GT XP following postemerge "PURSUIT" DG treatments are not recommended because:

- Crop injury from sequential postemerge applications of HARMONY® GT XP following "PURSUIT" DG is greater than from the use of either product applied alone. The first application interferes with the soybean plant's ability to metabolize the second herbicide treatment. Sequential applications may result in severe crop injury.
- Any weeds not controlled by the "PURSUIT" DG application will be stressed at the time of the sequential treatment. This will result in unsatisfactory weed control, particularly for stress sensitive weeds such as lambsquarters.

• Weeds that have recovered from a "PURSUIT" DG application will typically be larger than labeled size by the time soybeans may be safely treated with a HARMONY® GT XP application. This will result in unsatisfactory weed control.

HARMONY® GT XP plus "PURSUIT" DG treatments may be tank mixed with DuPont<sup>™</sup> ASSURE® II Herbicide to control volunteer corn and shattercane. "PURSUIT" DG will reduce the activity of ASSURE® II on all other grasses. For broad spectrum grass control, apply ASSURE® II 1 day before, or 7 days after "PURSUIT" DG treatments. Refer to the ASSURE® II label for recommended application rates, weed sizes, and restrictions.

Applications within 1 hour of rain may reduce weed control.

Cultivation before, during, or within 7 days after the application may put the weeds under stress by pruning roots. Root pruning may reduce weed control. The best time to cultivate is approximately 14 days after application.

Do not allow spray from either ground or aerial equipment to drift onto adjacent crops or land, as injury to other plants may occur.

Do not tank mix with organophosphate insecticides, or apply within 14 days before or after an application of an

organophosphate insecticide as severe crop injury may occur.

To avoid subsequent injury to crops other than soybeans, thoroughly clean all mixing and spray equipment immediately following application.

Refer to the respective labels for cleanout procedures. Follow the more restrictive cleanout recommendation.

Do not graze animals on green forage or stubble. Do not utilize hay or straw for animal feed or bedding.

With reduced rates of "PURSUIT" DG herbicide or with DuPont<sup>™</sup> CLASSIC<sup>®</sup> herbicide plus reduced rates of "PURSUIT" DG herbicide for control of nightshade in soybeans in the States of Indiana, Iowa, Michigan, Minnesota, Ohio, Pennsylvania, South Dakota and Wisconsin

HARMONY® GT XP at 1/12 oz/ac, or CLASSIC® herbicide plus HARMONY® GT XP at 1/12 oz/ac may be tank mixed with 0.72 oz/ac "PURSUIT" DG for postemergence control of weeds listed on the CLASSIC® and/or HARMONY® GT XP labels, and for the control of eastern black nightshade less than 2 inches tall. Refer to the CLASSIC® and HARMONY® GT XP labels for other weeds controlled and maximum heights.

Best results are obtained when either HARMONY® GT XP or CLASSIC® plus HARMONY® GT XP are tank mixed with "PURSUIT" DG and applied to weeds that are young (after the first true leaves have expanded, but before they exceed the size indicated on this label) and actively growing. This is generally 21-30 days after planting of soybeans.

Applications made to weeds that are in the cotyledon stage, or to weeds larger than the sizes indicated, or to weeds under stress (weather, herbicide, or other) may result in unsatisfactory control.

This program is recommended for the control of broadleaf weeds only. Other measures should be used to control grassy weeds.

ADJUVANTS: Postemerge applications of either DuPont<sup>™</sup> HARMONY® GT XP or CLASSIC® plus HARMONY® GT XP tank mixed with "PURSUIT" DG must include the addition of a nonionic surfactant and ammonium nitrogen fertilizer.

- Use a nonionic surfactant at the rate of 1 pint per 100 gal of solution (0.125% v/v). Under dry, cool (generally 70° F or less) conditions the rate of nonionic surfactant may be increased to 2 pints per 100 gal. of solution (0.25% v/v).
- Use a high quality nitrogen fertilizer product such as 28-0-0 at a rate of 4 - 8 pints per acre, or 10-34-0 at a rate of 2 - 4 pints per acre. Alternately, a high-quality, sprayable grade of ammonium sulfate (21-0-0) may be used at a rate of 2 - 4 pounds per acre. Use the lower rate for spray volumes less than 15 gal/ac.
- Do not use "Dash", "Dash HC", crop oil concentrates or methylated seed oil products such as "Sun-It II" when tank mixing either HARMONY® GT XP or CLASSIC® plus HARMONY® GT XP with "PURSUIT" DG as excessive crop injury may occur.

#### APPLICATION INFORMATION

**Broadcast Application:** Use flat fan nozzles at 25 - 40 psi. Do not use flood, hollow cone, rain drop, whirl chamber or controlled droplet applicator (CDA) type nozzles as unacceptable crop injury, excessive spray drift, or poor weed control may result. Use 10 - 25 gallons of water per acre. For proper spray coverage, adjust the boom and nozzle height according to the specifications listed by the nozzle manufacturer.

**Band Application:** For band application, use proportionately less spray mixture. To avoid crop injury, carefully calibrate the band applicator so as not to exceed the desired use rate.

Carefully follow the manufacturer's instructions for nozzle type, (flat fan preferred), nozzle orientation, distance of the nozzles from the crop and weeds, spray volumes, calibration, and spray pressure.

Aerial Application: Use nozzle types and arrangements that will provide for optimum spray distribution and maximum coverage at 5 to 10 gallons per acre. Do not apply during a temperature inversion, when winds are gusty, or when other conditions will favor poor coverage and/or off target spray movement. Use a minimum of 5 gallons of water per acre. Consult the respective product labels for special directions for aerial application.

#### IMPORTANT PRECAUTIONS

- Soybeans should be free from stress and actively growing at the time of application. Stress may be caused by abnormally hot or cold weather, growing conditions such as drought or water-saturated soil, disease, soil nutrient deficiencies such as iron chlorosis, or injury from nematodes, insects, or prior herbicide applications.
- Applications of either HARMONY® GT XP Herbicide or CLASSIC® plus HARMONY® GT XP when tank mixed with "PURSUIT" DG may shorten stem internodal length and cause temporary crop injury. Crop response may be increased

when applications are made to soybeans that are under stress. Soybeans will recover quickly under normal growing conditions.

- Cultivation may put weeds under stress by pruning roots, thus reducing weed control. Avoid cultivation 7-10 days prior to or following application of the herbicide treatment. For maximum weed control, cultivate 7-10 days after application.
- Apply this treatment after the first trifoliate of the soybean has fully expanded and the plants are actively growing, but before soybeans begin to flower.
- Refer to the DuPont<sup>TM</sup> CLASSIC<sup>®</sup>, HARMONY<sup>®</sup> GT XP, "PURSUIT" DG Herbicide labels for additional use directions, use restrictions, rotational crop intervals, and precautions. The most restrictive provision on either label will apply.
- Applications within 1 hour of rain may reduce weed control.

#### With Glyphosate

HARMONY® GT XP herbicide may be tank mixed with glyphosate for control of certain broadleaf weeds in Roundup Ready or Roundup Ready X "STS® stacked trait" soybeans. For tank mixtures of HARMONY® GT XP plus glyphosate herbicide, always read and follow all use directions, restrictions, and pre-cautions on the EPA approved labels. When tank mixing, the most restrictive labeling applies.

For improved control of common lambsquarters, volunteer "Roundup Ready" canola, ALS-sensitive horseweed and kochia, and/or wild buckwheat, tank mix up to 0.33 oz of HARMONY® GT XP per acre with a recommended rate of glyphosate. Refer to the HARMONY® GT XP and glyphosate manufacturer's labels and technical bulletins for other weeds which may be controlled or suppressed, and the maximum weed size at application. For best results, apply to small, actively growing weeds.

The HARMONY® GT XP plus glyphosate tank mix may be applied to STS® X "Roundup Ready" stacked trait soybeans anytime after the first trifoliate has expanded fully and up until 60 days before soybeans are harvested.

The tank mixture of HARMONY® GT XP plus glyphosate is recommended for use only on soybeans designated STS® X "Roundup Ready" stacked trait. Severe injury or death of soybeans will result if any soybeans not designated as STS® X "Roundup Ready" stacked trait are treated with this tank mixture.

Do not apply more than 0.33 oz HARMONY® GT XP per acre per growing season.

#### Adjuvants

When tank mixing HARMONY® GT XP with glyphosate, it is recommended to add ammonium sulfate (AMS) at 4.25 - 17 lb per 100 gal of spray mixture. See the glyphosate manufacturer's label for specific ammonium nitrogen instructions. When velvetleaf is present, ammonium sulfate is required at a minimum rate of 2 lb per acre.

The addition of surfactant at 0.125 - 0.25% v/v (1-2 pt per 100 gal spray mixture) to some HARMONY® GT XP plus glyphosate tank mixes will improve weed control when

glyphosate products are used that do not contain built-in adjuvant systems. Glyphosate products differ in their adjuvant contents. Glyphosate products such as Glyphomax or Roundup Original allow for addition of surfactants. See the manufacturer's specific surfactant instructions.

# SEQUENTIAL APPLICATIONS IN SOYBEANS

Before making applications of DuPont<sup>™</sup> HARMONY® GT XP to soybeans previously treated with other herbicides, ensure that the soybeans are free from stress (herbicide or environmental) and actively growing.

# **FIELD CORN**

Do not apply to sweet corn, popcorn or field corn grown for seed.

Do not apply this product through any type of irrigation systems.

Do not graze or feed forage or grain from treated field corn to livestock within 30 days of application.

#### RESTRICTION

This product is limited to ground application only in the State of New York. Do not apply by air in that state.

#### APPLICATION INFORMATION

HARMONY® GT XP may be applied to 2-6 leaf field corn (1-5 collars, up to 16 inches tall) at a rate of 0.083 (1/12) ounce per acre. Do not apply to field corn taller than 16 inches or 5 collars, whichever is more restrictive.

HARMONY® GT XP may be applied as a tank mixture with labeled rates of atrazine and glyphosate. Do not tank mix with other corn herbicides unless specified on HARMONY® GT XP labels or technical bulletins.

Apply HARMONY® GT XP to field corn hybrids with a Relative Maturity (RM) of 88 days or more, including "food grade" (yellow dent, hard endosperm), waxy and high-oil corn. Not all field corn hybrids of less than 88 days RM, not all white corn hybrids or Hi-Lysine hybrids have been tested for crop safety, nor does DuPont have access to all seed company data. Consequently, injury arising from the use of HARMONY® GT XP on these types of corn is the responsibility of the user. Consult with your seed supplier before applying HARMONY® GT XP to any of these corn types.

Do not make more than one application per season.

# TIMING TO WEEDS

Apply to weeds whose first true leaves are expanded but before weeds exceed the sizes listed below.

When applied as directed, HARMONY® GT XP will control the following weeds:

WEED	Maximum Size (Inches)	
Velvetleaf	6	
Pigweed species	12	
Lambsquarters	4	
Annual smartweeds	6	
Wild mustard	up to 4"	
	in diameter	

# ADJUVANTS

Always add either nonionic surfactant at 0.25% v/v (1 qt/100 gal) or crop oil concentrate at 1% v/v (1 gal/100 gal) plus either ammonium nitrogen solution such as 28% UAN (2-4 qt/acre) of ammonium sulfate (2-4 lb/acre).

When tank mixing HARMONY® GT XP with glyphosate, it is recommended to add ammonium sulfate (AMS) at 4.25 - 17 lb per 100 gal of spray mixture. See the glyphosate manufacturer's label for specific ammonium nitrogen instructions. When velvetleaf is present, ammonium sulfate is required at a minimum rate of 2 lb per acre.

The addition of surfactant at 0.125 - 0.25% v/v (1-2 pt per 100 gal spray mixture) to some HARMONY® GT XP plus glyphosate tank mixes will improve weed control when glyphosate products are used that do not contain built-in adjuvant systems. Glyphosate products differ in their adjuvant contents. Glyphosate products such as Glyphomax or Roundup Original allow for addition of surfactants. See the manufacturer's specific surfactant instructions.

# SOIL INSECTICIDE INTERACTIONS

HARMONY® GT XP may interact with certain insecticides previously applied to the crop. Crop response varies with field corn type, insecticide used, insecticide application method, and soil type.

HARMONY® GT XP may be applied to corn previously treated with "Fortress", "Aztec", "Force" or nonorganophosphate (OP) soil insecticides regardless of soil type.

- DO NOT APPLY HARMONY® GT XP to corn previously treated with Counter 15G.
- Applications of HARMONY® GT XP to corn previously treated with "Counter 20CR", "Lorsban" or "Thimet" may cause unacceptable crop injury, especially on soils of less than 4% organic matter.
- Applications of HARMONY® GT XP to corn previously treated with "Lorsban", or other organophosphate insecticides not listed above, may result in temporary crop injury.

# POST HARVEST

#### APPLICATION TIMING

HARMONY® GT XP may be used as a burndown treatment to crop stubble when the majority of weeds have emerged and are actively growing. (See the "CROP ROTATION" section of this label for additional information).

#### **USE RATES**

Apply HARMONY® GT XP at 0.3 to 0.6 ounce per acre to crop stubble after harvest. Use the 0.6 ounce per acre rate when weed infestation is heavy and predominantly consists of those weeds listed under the "WEEDS PARTIALLY

CONTROLLED" section of this label or when application timing and environmental conditions are marginal. (See the "APPLICATION TIMING" section of this label for restriction on planting intervals). HARMONY® GT XP should be applied in combination with other suitable registered burndown herbicides (See the "TANK MIXTURES" section of this label for additional information).

Sequential treatments of HARMONY® GT XP may also be made provided the total amount of HARMONY® GT XP applied during one fallow/pre plant cropland season does not exceed 1.0 ounce per acre.

# TANK MIXTURES IN POST HARVEST APPLICATIONS

HARMONY® GT XP may be used as a post harvest treatment to crop stubble, and should be tank mixed with other herbicides that are registered for use in fallow.

# PRODUCT USE AND APPLICATION DIRECTIONS - ALL CROPS AND USES

## **GROUND APPLICATION**

For best performance, select nozzles and pressure that deliver MEDIUM spray. Nozzles that deliver COARSE spray droplets may be used to reduce drift, provided spray volume is increased to maintain coverage on small weeds. For optimal product performance and minimal spray drift, adjust the spray boom to the lowest possible spray height listed in manufacturers' specifications.

Overlaps or starting, stopping, slowing, and turning while spraying may result in crop injury.

# WHEAT, BARLEY, OAT, TRITICALE, POST-HARVEST BURNDOWN, PRE-PLANT BURNDOWN AND FALLOW:

For flat-fan nozzles, use a spray volume of at least 5 gal per acre (GPA).

For flood nozzles on 30" spacings, use at least 10 GPA, flood nozzles no larger than TK10 (or the equivalent), and a pressure of at least 30 psi. For 40" nozzle spacings, use at least 13 GPA; for 60" spacings use at least 20 GPA. It is essential to overlap the nozzles 100% for all spacings.

"Raindrop RA" nozzles are not recommended for DuPont<sup>TM</sup> HARMONY® GT XP herbicide applications, as weed control performance may be reduced.

Use screens that are 50-mesh or larger.

#### CORN AND SOYBEANS:

#### **Broadcast Application**

#### Use 10-25 gallons of water per acre.

Ensure that equipment is set up to avoid applying an excessive rate directly over the rows and into the corn plant whorl. Overlaps or starting, stopping, slowing, and turning while spraying may result in crop injury.

Under heavy weed pressure or dense crop foliage, increase minimum spray volume to 15-25 gal per acre.

#### **Band** Application

For band applications, use proportionately less spray mixture.

To avoid crop injury, carefully calibrate the band applicator to not exceed the labeled rate.

Carefully follow the manufacturer's instructions for nozzle type (flat fans), orientation, distance of nozzles from the crop and weeds, spray volumes, calibration and spray pressure.

#### AERIAL APPLICATION

This product is limited to ground application only in the State of New York. Do not apply by air in that state.

Do not apply during a temperature inversion, when winds are gusty, or when conditions favor poor coverage and/or off-target spray movement.

In wheat, barley, oats, triticale, post-harvest burndown, preplant burndown and fallow use 2 to 5 gallons per acre; use at least 3 gallons per acre in Idaho, Oregon and Utah. In corn and soybeans, use a minimum of 5 gallons per acre.

When applying HARMONY® GT XP by air in areas adjacent to sensitive crops, use solid stream nozzles oriented straight back. Adjust the swath to avoid spray drift damage to sensitive crops downwind and/or use ground equipment to treat the border edge of fields. See the Spray Drift Management section of this label.

# SPRAY ADJUVANTS

Always include a spray adjuvant with applications of HARMONY® GT XP. In addition to a spray adjuvant, an ammonium nitrogen fertilizer may be used. Do not use low rates of liquid nitrogen fertilizer solution as a substitute for surfactant. Antifoaming agents may be used if needed.

Consult your Ag dealer or applicator, local DuPont fact sheets and technical bulletins prior to using an adjuvant system. If another herbicide is tank mixed with HARMONY® GT XP, select adjuvants authorized for use with both products. Products must contain only EPAexempt ingredients.

#### Nonionic Surfactant (NIS)

- Apply 0.06 to 0.50% volume/volume (1/2 pt to 4 pt per 100 gal of spray solution).
- Surfactant products must contain at least 60% nonionic surfactant with a hydrophilic/lipophilic balance (HLB) greater than 12. See the "TANK MIXTURES" section of this label for additional information.

#### Crop Oil Concentrate (COC) - Petroleum or Modified Seed Oil (MSO)

- Apply at 1% v/v (1 gal per 100 gal spray solution) or 2% under arid conditions. MSO adjuvants may be used at 0.5% v/v if specified on local DuPont product literature or service policies.
- Oil adjuvants must contain at least 80% high quality, petroleum (mineral) or modified vegetable seed oil with at least 15% surfactant emulsifiers.

#### Special Adjuvant Types

- Combination adjuvant products may be used at doses that provide the required amount of NIS, COC, MSO and/or ammonium nitrogen fertilizer. Consult product literature for use rates and restrictions.
- In addition to the adjuvants specified above, other adjuvant types may be used if they provide the same functionality and have been evaluated and approved by DuPont product management. Consult separate DuPont technical bulletins for detailed information before using adjuvant types not specified on this label.

#### Ammonium Nitrogen Fertilizer

• Use 2 qt/acre of a high-quality urea ammonium nitrate (UAN), such as 28%N or 32%N, or 2 lb/acre of a spraygrade ammonium sulfate (AMS). Use 4 qt/acre UAN or 4 lb/acre AMS under arid conditions.

#### **CROP ROTATION**

Wheat, barley, oat, triticale, soybeans and field corn may be replanted anytime after the application of HARMONY® GT XP. Any other crop may be planted 45 days after the application of HARMONY® GT XP.

#### GRAZING

Allow at least 7 days between application and grazing of treated forage. In addition, allow at least 7 days between application and feeding of forage from treated areas to livestock. Allow at least 30 days between application and feeding of hay from treated areas to livestock. Harvested straw may be used for bedding and/or feed.

# MIXING INSTRUCTIONS

Do not use with spray additives that alter the pH of the spray solution below pH 5.0 or above pH 9.0, as rapid product degradation can occur. Spray solutions of pH 6.0 - 8.0 allow for optimum stability of DuPont<sup>™</sup> HARMONY® GT XP.

- 1. Fill the tank 1/4 to 1/3 full of water.
- 2. While agitating, add the required amount of HARMONY® GT XP.
- 3. Continue agitation until the HARMONY® GT XP is fully dispersed, at least 5 minutes.
- 4. Once the HARMONY® GT XP is fully dispersed, maintain agitation and continue filling tank with water. HARMONY® GT XP should be thoroughly mixed with water before adding any other material.
- 5. As the tank is filling, add tank mix partners (if desired) then add the required volume of spray adjuvant. Always add spray adjuvant last. Antifoaming agents may be used. Do not use with spray additives that alter the pH of the spray solution below pH 6.0 as rapid product degradation can occur. Spray solutions of pH 7.0 and higher allow for optimum stability of HARMONY® GT XP.
- If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
- 7. Apply HARMONY® GT XP spray mixture within 24 hours of mixing to avoid product degradation.
- 8. If HARMONY® GT XP and a tank mix partner are to be applied in multiple loads, pre-slurry the HARMONY® GT XP in clean water prior to adding to the tank. This will prevent the tank mix partner from interfering with the dissolution of the HARMONY® GT XP.

### SPRAY EQUIPMENT

For specific application equipment, refer to the manufacturer's instructions for additional information on GPA, pressure, speed, nozzle types and arrangements, nozzle heights above the target canopy, etc.

Be sure to calibrate air or ground equipment properly before application. Select a spray volume and delivery system that will ensure thorough coverage and a uniform spray pattern with minimum drift. Use higher spray volumes to obtain better coverage when crop canopy is dense. Avoid swath overlapping, and shut off spray booms while starting, turning, slowing, or stopping, to avoid injury to the crop. Do not make applications using equipment and/or spray volumes or during weather conditions that might cause spray to drift onto nontarget sites. For additional information on spray drift refer to the "SPRAY DRIFT MANAGEMENT" section of this label. Continuous agitation is required to keep HARMONY® GT XP herbicide in suspension.

# SPRAYER CLEANUP

The spray equipment must be cleaned before HARMONY® GT XP is sprayed. Follow the cleanup procedures specified

on the labels of the previously applied products. If no directions are provided, follow the six steps outlined in the "AFTER SPRAYING HARMONY® GT XP" section of this label.

#### AT THE END OF THE DAY

It is recommended that during periods when multiple loads of HARMONY® GT XP herbicide are applied, at the end of each day of spraying the interior of the tank be rinsed with fresh water and then partially filled, and the boom and hoses flushed. This will prevent the buildup of dried pesticide deposits which can accumulate in the application equipment.

# AFTER SPRAYING HARMONY® GT XP AND BEFORE SPRAYING CROPS OTHER THAN WHEAT, BARLEY, OAT, TRITICALE, FIELD CORN AND SOYBEANS

To avoid subsequent injury to desirable crops, thoroughly clean all mixing and spray equipment immediately following applications of HARMONY® GT XP as follows:

- 1. Drain tank; thoroughly rinse spray tanks, boom, and hoses with clean water. Loosen and physically remove any visible deposits.
- 2. Fill the tank with clean water and 1 gal of household ammonia\* (contains 3% active ingredient) for every 100 gal of water. Flush the hoses, boom, and nozzles with the cleaning solution. Then add more water to completely fill the tank. Circulate the cleaning solution through the tank and hoses for at least 15 min. Flush the hoses, boom, and nozzles again with the cleaning solution, and then drain the tank.
- 3. Remove the nozzles and screens and clean separately in a bucket containing cleaning agent and water.
- 4. Repeat step 2.
- 5. Rinse the tank, boom, and hoses with clean water.
- 6. If only Ammonia is used as a cleaner, the rinsate solution may be applied back to the crop(s) specified on this label. Do not exceed the maximum labeled use rate. If other cleaners are used, consult the cleaner label for rinsate disposal instructions. If no instructions are given, dispose of the rinsate on site or at an approved waste disposal facility.
- \* Equivalent amounts of an alternate-strength ammonia solution or a DuPont-approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your Ag dealer, applicator, or DuPont representative for a listing of approved cleaners.

#### Notes:

- 1. CAUTION: Do not use chlorine bleach with ammonia because dangerous gases will form. Do not clean equipment in an enclosed area.
- 2. Steam-cleaning aerial spray tanks is recommended prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.
- 3. When HARMONY® GT XP is tank mixed with other pesticides, all cleanout procedures for each product should be examined and the most rigorous procedure should be followed.

- 4. In addition to this cleanout procedure, all precleanout guidelines on subsequently applied products should be followed as per the individual product labels.
- 5. Where routine spraying practices include shared equipment frequently being switched between applications of DuPont<sup>™</sup> HARMONY® GT XP and applications of other
- pesticides to HARMONY® GT XP -sensitive crops during the same spray season, it is recommended that a sprayer be dedicated to HARMONY® GT XP to further reduce the chance of crop injury.

# SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determines the potential for spray drift. The applicator is responsible for considering all these factors when making application decisions.

#### AVOIDING SPRAY DRIFT IS THE RESPONSIBILITY OF THE APPLICATOR

# IMPORTANCE OF DROPLET SIZE

The most effective 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. The presence of sensitive species nearby, the environmental conditions, and pest pressure may affect how an applicator balances drift control and coverage. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT WILL NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See Wind, Temperature and Humidity, and Temperature Inversions sections of this label.

# **Controlling Droplet Size - General Techniques**

- Volume Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER-CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- 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.

#### **Controlling Droplet Size - Aircraft**

- Number of Nozzles Use the minimum number of nozzles with the highest flow rate that provide uniform coverage.
- Nozzle Orientation Orienting nozzles so that the spray is emitted backwards, parallel to the airstream will produce larger droplets than other orientations.
- Nozzle Type Solid stream nozzles (such as disc and core with swirl plate removed) oriented straight back produce larger droplets than other nozzle types.
- **Boom Length** The boom length should not exceed 3/4 of the wing or rotor length longer booms increase drift potential.
- Application Height Application more than 10 ft above the canopy increases the potential for spray drift.

# **BOOM HEIGHT**

Setting the boom at the lowest referenced height (if specified) which provides uniform coverage reduces the exposure of droplets to evaporation and wind. For ground equipment, the boom should remain level with the crop and have minimal bounce.

## WIND

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. AVOID APPLICATIONS DURING GUSTY OR WINDLESS CONDITIONS.

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

# TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, set up equipment to produce larger droplets to reduce effects of evaporation.

## **TEMPERATURE INVERSIONS**

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

## SHIELDED SPRAYERS

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

# AIR ASSISTED (AIR BLAST) FIELD CROP SPRAYERS

Air assisted field crop sprayers carry droplets to the target via a downward directed air stream. Some may reduce the potential for drift, but if a sprayer is unsuitable for the application and/or set up improperly, high drift potential can result. It is the responsibility of the applicator to determine that a sprayer is suitable for the intended application, is configured properly, and that drift is not occurring. Note: Air assisted field sprayers can affect product performance by affecting spray coverage and canopy penetration. Consult the "SPRAY EQUIPMENT" section of this label to determine if use of an air assist sprayer is recommended.

# RESISTANCE

When herbicides that affect the same biological site of action are used repeatedly over several years to control the same weed species in the same field, naturally-occurring resistant biotypes may survive a correctly applied herbicide treatment, propagate, and become dominant in that field. Adequate control of these resistant weed biotypes cannot be expected. If weed control is unsatisfactory, it may be necessary to retreat the problem area using a product affecting a different site of action.

To better manage herbicide resistance through delaying the proliferation and possible dominance of herbicide resistant weed biotypes, it may be necessary to change cultural practices within and between crop seasons such as using a combination of tillage, retreatment, tank-mix partners and/or sequential herbicide applications that have a different site of action. Weed escapes that are allowed to go to seed will promote the spread of resistant biotypes. See the Weeds Controlled section of this label for additional information on managing herbicide resistant weed biotypes.

It is advisable to keep accurate records of pesticides applied to individual fields to help obtain information on the spread and dispersal of resistant biotypes. Consult your agricultural dealer, consultant, applicator, and/or appropriate state agricultural extension service representative for specific alternative cultural practices or herbicide instructions available in your area.

# INTEGRATED PEST MANAGEMENT

This product may be used as part of an Integrated Pest Management (IPM) program that can include biological, cultural, and genetic practices aimed at preventing economic pest damage. IPM principles and practices include field scouting or other detection methods, correct target pest identification, population monitoring, and treating when target pest populations reach locally determined action thresholds. Consult your state cooperative extension service, professional consultants or other qualified authorities to determine appropriate action treatment threshold levels for treating specific pest/crop systems in your area.

# STORAGE AND DISPOSAL

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

**Pesticide Storage:** Store product in original container only. Store in a cool, dry place.

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

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

Nonrefillable Plastic and Metal Containers (Capacity Equal to or Less Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities

Nonrefillable Plastic and Metal Containers (Capacity Greater Than 50 Pounds): Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Plastic and Metal Containers, e.g., Intermediate Bulk Containers [IBC] (Size or Shape Too Large to be Tipped, Rolled or Turned Upside Down): Nonrefillable container. Do not reuse or refill this container. Clean container promptly after emptying the contents from this container into application equipment or mix tank and before final disposal using the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

Nonrefillable Paper or Plastic Bags, Fiber Sacks including Flexible Intermediate Bulk Containers (FIBC) or Fiber Drums With Liners: Nonrefillable container. Do not reuse or refill this container. Completely empty paper or plastic bag, fiber sack or drum liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer for recycling if available or dispose of empty paper or plastic bag, fiber sack or fiber drum and liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

Refillable Fiber Drums With Liners: Refillable container (fiber drum only). Refilling Fiber Drum: Refill this fiber drum with DuPont<sup>™</sup> HARMONY® GT XP herbicide containing thifensulfuron methyl only. Do not reuse this fiber drum for any other purpose. Cleaning before refilling is the responsibility of the refiller. Completely empty liner by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Disposing of Fiber Drum and/or Liner: Do not reuse this fiber drum for any other purpose other than refilling (see preceding). Cleaning the container (liner and/or fiber drum) before final disposal is the responsibility of the person disposing of the container. Offer the liner for recycling if available or dispose of liner in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances. If drum is contaminated and cannot be reused, dispose of it in the manner required for its liner. To clean the fiber drum before final disposal, completely empty the fiber drum by shaking and tapping sides and bottom to loosen clinging particles. Empty residue into application or manufacturing equipment. Then offer the fiber drum for recycling if available or dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local ordinances.

All Other Refillable Containers: Refillable container. *Refilling Container*: Refill this container with HARMONY® GT XP herbicide containing thifensulfuron methyl only. Do not reuse this container for any other purpose. Cleaning before refilling is the responsibility of the refiller. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn out threads and closure devices. If damage is found, do not use the container, contact DuPont at the number below for instructions. Check for leaks after refilling and before transporting. If leaks are found, do not reuse or transport container, contact DuPont at the number below for instructions. Disposing of Container: Do not reuse this container for any other purpose other than refilling (see preceding). Cleaning the container before final disposal is the responsibility of the person disposing of the container. To clean the container before final disposal, use the following pressure rinsing procedure. Insert a lance fitted with a suitable tank cleaning nozzle into the container and ensure that the water spray thoroughly covers the top, bottom and all sides inside the container. The nozzle manufacturer generally provides instructions for the appropriate spray pressure, spray duration and/or spray volume. If the manufacturer's instructions are not available, pressure rinse the container for at least 60 seconds using a minimum pressure of 30 PSI with a minimum rinse volume of 10% of the container volume. Drain, pour or pump rinsate into application equipment or pour of pump rinsate into application equipment of rinsate collection system. Repeat this pressure rinsing procedure two more times. Then, for Plastic Containers, offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration. Do not burn, unless allowed by state and local addingers Matel Continent offer for security. ordinances. For Metal Containers, offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

**Outer Foil Pouches of Water Soluble Packets** (WSP): Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available or, dispose of the empty outer foil pouch in the trash as long as WSP is unbroken. If the outer pouch contacts the formulated product in any way, the pouch must be triple rinsed with clean water. Add the rinsate to the spray tank and dispose of the outer pouch as described previously.

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

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# LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read this Limitation of Warranty and Liability Before Buying or Using This Product. If the Terms Are Not Acceptable, Return the Product at Once, Unopened, and the Purchase Price Will Be Refunded.

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

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