



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

November 26, 2019

Bonnie Bieber  
FMC Corporation  
c/o FMC Stine Research Center  
1090 Elkton Road  
Newark, Delaware 19711

Subject: Registration Review Label Mitigation for Thifensulfuron-Methyl  
Product Name: Harmony GT XP Herbicide  
Application Date: 12/18/2017  
EPA Registration Number: 279-9577  
Decision Number: 541515

Dear Ms. Bieber:

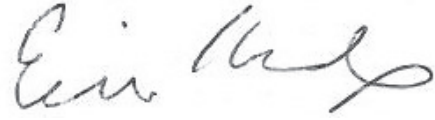
The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all of the information submitted with your application to support the Registration Review of the above referenced product in connection with the 22 Sulfonylurea (SU) Herbicides Interim Decision, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

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

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions about this letter, please contact Erik Kraft by phone at 703-308-9358, or via email at [kraft.erik@epa.gov](mailto:kraft.erik@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Erik Kraft". The signature is fluid and cursive, with the first name "Erik" being more prominent than the last name "Kraft".

Erik Kraft, Product Manager 24  
Fungicide and Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

Enclosure

# HARMONY® GT XP

HERBICIDE

|                       |       |   |           |
|-----------------------|-------|---|-----------|
| THIFENSULFURON METHYL | GROUP | 2 | HERBICIDE |
|-----------------------|-------|---|-----------|

Dry flowable

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

Active Ingredient By Weight

Thifensulfuron-methyl 75%

Other Ingredients 25%

TOTAL

Contains 0.75 lb Thifensulfuron Methyl per pound

EPA Reg. No. 279-9577

EPA Est. No. \_\_\_\_

**ACCEPTED**

11/26/2019

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 279-9577

100%

Nonrefillable Container

Net: \_\_\_\_\_

OR

Refillable Container

Net: \_\_\_\_\_

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

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 toll-free 1-800-331-3148.**

### 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 made out of any waterproof material.

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.

Sold By



FMC Corporation  
2929 Walnut Street  
Philadelphia, PA 19104

## USER SAFETY RECOMMENDATIONS

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

## 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.

### Groundwater Advisory

This product has properties and characteristics associated with chemicals detected in groundwater. This product may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

### Surface Water Advisory

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several days or more after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of this product from runoff water and sediment. Runoff of this product will be greatly reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

### Windblown Soil Particles Advisory

This product has the potential to move off-site due to wind erosion. Soils that are subject to wind erosion usually have a high silt and/or fine to very fine sand fractions and low organic matter content. Other factors which can affect the movement of windblown soil include the intensity and direction of prevailing winds, vegetative cover, site slope, rainfall, and drainage patterns. Avoid applying this product if prevailing local conditions may be expected to result in off-site movement.

### Non-target Organism Advisory

This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated area. Protect the forage and habitat of non-target organisms by minimizing spray drift. For further guidance and instructions on how to minimize spray drift, refer to the Spray Drift Management section of this label.

## 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 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 area that is permitted under the Worker Protection Standard and that involved contact with anything that has been treated such as plants, soil or water, is:

- Coveralls
- Chemical-resistant gloves made out of any waterproof material
- Shoes plus socks

HARMONY® GT XP herbicide, referred to below as HARMONY GT XP herbicide must be used only in accordance with instructions on this label or as otherwise permitted by FIFRA. Always read the entire label, including the Limitation of Warranty and Liability. To the extent consistent with applicable law, FMC will not be responsible for losses or damages resulting from the use of this product in any manner not specifically directed by FMC.

HARMONY GT XP herbicide 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 herbicide is registered in your state.

## **PRODUCT INFORMATION**

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 herbicide 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.

## **ENVIRONMENTAL CONDITIONS AND BIOLOGICAL ACTIVITY**

Best results are obtained when HARMONY GT XP herbicide 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 herbicide 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 herbicide, 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 herbicide may injure crops that are stressed from adverse environmental conditions (including 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 herbicide 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 herbicide to be sufficiently absorbed by weed foliage.

To reduce the potential of crop injury in cereals, tank mix HARMONY GT XP herbicide 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.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. If the instructions on the tank mix partner label conflicts with this HARMONY GT XP herbicide label, **do not** use in a tank mixture with HARMONY GT XP herbicide.

## RESTRICTIONS

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

- **Do not** apply or drain or flush equipment on or near desirable trees or other plants, or on areas where their roots extend, or in locations where the product may be washed or moved into contact with their roots.
- **Do not** use on lawns, walks, driveways, or tennis courts.
- **Do not** allow sprays to drift to desirable plants
- **Do not** apply to wheat, barley oats or triticale underseeded with another crop.
- **Do not** apply this product through any type of irrigation system.
- **Do not** apply by air in the State of New York.
- **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** graze or feed forage or grain from treated field corn to livestock within 30 days of application.
- **Do not** make more than one pre-plant or at-planting application of HARMONY GT XP herbicide to field corn, rice, sorghum, or soybeans per year
- **Do not** apply HARMONY GT XP herbicide 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.

## PRECAUTIONS

- 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.
- 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.
- Take all necessary precautions to avoid all direct or indirect contact (including 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. FMC advises 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.
- For cereals under certain conditions including 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 herbicide application, temporary discoloration and/or crop injury may occur. To reduce the potential of crop injury, tank mix HARMONY GT XP herbicide 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.
- 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.

## WEED RESISTANCE MANAGEMENT

HARMONY GT XP herbicide, which contains the active ingredient Thifensulfuron methyl is a group 2 herbicide based on the mode of action classification system of the Weed Science Society of America. Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program.

To aid in the prevention of developing weeds resistant to this product, follow as many of the following herbicide resistance management practices as is practical:

- Scout fields before application to ensure herbicides and rates will be appropriate for the weed species and weed sizes present.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of HARMONY GT XP herbicide for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Scout fields after application to detect weed escapes or shifts in control of weed species.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed to your FMC representative, local retailer, or county extension agent.
- Contact your FMC representative, crop advisor, or extension agent to determine if suspected resistant weeds to this MOA have been found in your region. If resistant biotypes of target weeds have been reported, use the application rates of this product specified for your local conditions. Tank mix products so that there are multiple effective sites of actions for each target weed.
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 2 and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Suspected herbicide-resistant weeds may be identified by these indicators:
  - Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
  - A spreading patch of non-controlled plants of a particular weed species; and surviving plants mixed with controlled individuals of the same species.
- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 2 herbicides.
- Avoid making more than two applications of HARMONY GT XP herbicide and any other Group 2 herbicides within a single growing season unless mixed with an herbicide with a different site of action with an overlapping spectrum for the difficult-to-control weeds.
- Incorporate non-chemical weed control practices, including mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

## 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.

# APPLICATION INFORMATION

## CEREALS, FALLOW AND PREPLANT BURNDOWN

### WEEDS CONTROLLED

|                                  |                        |                             |
|----------------------------------|------------------------|-----------------------------|
| Annual knawel                    | Field pennycress       | Scentless chamomile/mayweed |
| Annual sowthistle                | Flixweed               | Shepherdspurse              |
| Black mustard                    | Green smartweed        | Smallflower buttercup       |
| Bushy wallflower/Treacle mustard | Kochia †               | Stinking mayweed /Dogfennel |
| Carolina geranium                | Ladysthumb             | Swinecress                  |
| Coast fiddleneck                 | London rocket          | Tarweed fiddleneck          |
| Common buckwheat                 | Mallow (little)        | Tumble/Jim Hill mustard     |
| Common chickweed*                | Marshelder             | Volunteer lentils           |
| Common groundsel                 | Miners lettuce         | Volunteer peas              |
| Common lambsquarters             | Mouseear chickweed     | Volunteer sunflower*        |
| Corn chamomile                   | Pennsylvania smartweed | Wild buckwheat*             |
| Corn spurry                      | Prostrate knotweed     | Wild chamomile              |
| Cress (mouse-ear)                | Redmaids               | Wild garlic*                |
| Curly dock                       | Redroot pigweed        | Wild mustard                |
| Falsechamomile                   | Russian thistle†*      |                             |

### PARTIAL CONTROL \*\*

|                          |                  |               |
|--------------------------|------------------|---------------|
| Common cocklebur         | Henbit           | Tansymustard* |
| Common sunflower         | Mallow (common)  | Wild radish*  |
| Cutleaf evening primrose | Prickly lettuce* |               |

\* 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 ounces (0.0234 to 0.0281 lb ai/A) HARMONY® GT XP per acre and include a tank mix partner including 2,4-D, MCPA, bromoxynil or dicamba containing products. 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

Apply HARMONY GT XP herbicide 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 herbicide 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 herbicide at 0.3 to 0.6 ounce per acre (0.0141 to 0.0281 lb ai/A) to fallow for control or partial control of the weeds listed above. Sequential treatments of HARMONY GT XP herbicide may be made provided the total amount of HARMONY GT XP herbicide applied does not exceed 1.0 ounce per acre (0.0469 lb ai/A).

### TANK MIXTURES IN FALLOW

HARMONY GT XP herbicide may be used as a fallow treatment, and may be tank mixed with other herbicides that are registered for use in fallow including glyphosate, glyphosate plus 2,4-D (ester formulations work best), glyphosate plus dicamba, 2,4-D (ester formulations work best) or dicamba alone. Refer to the tank mix partner label for rates and use instructions. If the label instructions conflict with this label, **do not** tank mix that product with HARMONY GT XP herbicide. 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.



## FALLOW RESTRICTIONS:

When using HARMONY GT XP herbicide in tank mixes or sequential applications with other products containing thifensulfuron methyl, **do not** exceed the amount of ai/A in the columns below:

| Active Ingredient in Harmony GT XP herbicide: Thifensulfuron-methyl |  |   |  |                                  |                          |   |                                   |                             |
|---|--|---|--|----------------------------------|--------------------------|---|-----------------------------------|-----------------------------|
| Crop/Use  | Application Timing   | Maximum Product Oz/A per Single Application | Maximum AI lb/A per Single Application | Maximum Oz/A of Product per Year | Maximum AI lb/A per Year | Maximum Number of Applications per Year | Minimum Treatment Interval (Days) | Pre- Harvest Interval, Days |
| Fallow  | Spring, summer or fall. Apply HARMONY GT XP herbicide in the spring through the fall when the majority of weeds have emerged and are actively growing. | 0.6   | 0.0281                                 | 1.0                              | 0.0469                   | 2                                       | 14                                | NA                          |

## PREPLANT BURNDOWN APPLICATIONS (WHEAT (INCLUDING DURUM), BARLEY, OAT, TRITICALE, SOYBEANS, FIELD CORN GRAIN SORGHUM, RICE, COTTON, SUGARBEETS, CANOLA)

### APPLICATION TIMING

For burndown of emerged weeds, broadcast applications of HARMONY GT XP herbicide may be applied before planting or shortly after planting, but prior to emergence of wheat (including durum), barley, oat, triticale, soybeans and field corn. Apply HARMONY GT XP herbicide as a burndown treatment up to the day of planting grain sorghum and rice. Apply HARMONY GT XP herbicide as a burndown treatment at least 7 days prior to planting cotton. Apply HARMONY GT XP herbicide as a burndown treatment before planting any other crop (including sugarbeets or canola) at least 45 days prior to planting.

### USE RATES

Apply HARMONY GT XP herbicide at 0.3 to 0.6 ounce per acre (0.0141 to 0.0281 lb ai/A) for control or partial control of the weeds listed above, except when planting to cotton where HARMONY GT XP herbicide can be applied at 0.2 to 0.33 ounce per acre. (0.0094 to 0.0155 lb. ai/A). Use the 0.6 ounce per acre (0.0281 lb ai/A) 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.

Apply HARMONY GT XP herbicide 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

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

HARMONY GT XP herbicide 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 products containing the active ingredient glyphosate, glyphosate plus dicamba, or dicamba alone. Refer to the tank mix partner label for rates and use instructions.

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

HARMONY GT XP herbicide maybe used as part of a pre-plant or at-planting burndown treatment, in combination with other suitable registered herbicides.

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

In fields to be planted to cotton, apply HARMONY GT XP herbicide at 0.2 to 0.33 ounce per acre (0.0094 to 0.0155 lb. ai/A). 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 herbicide at 0.3 to 0.6 ounce per acre (0.0141 to 0.0281 lb. ai/A) 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 herbicide to increase the broadleaf weed spectrum, select adjuvants based on the adjuvant limitations of the companion herbicide

## PRE\_PLANT BURNDOWN RESTRICTIONS

- **Do not** apply more than 0.6 oz. (0.0281 lb ai/A) of HARMONY GT XP herbicide per acre to rice or grain sorghum pre-plant or at-planting.
- **Do not** apply more than 0.6 oz. (0.0281 lb ai/A) of HARMONY GT XP herbicide per acre per year to field corn or soybeans. Application(s) to these crops can be made pre-plant/at-planting, and/or postemergence.
- When using HARMONY GT XP herbicide in tank mixes or sequential applications with other products containing thifensulfuron methyl, **do not** exceed the amount of ai/A in the columns below:

| Active Ingredient in Harmony GT XP herbicide: Thifensulfuron-methyl |   |   |  |                                  |                          |   |                                   |                             |
|---|---|---|--|----------------------------------|--------------------------|---|-----------------------------------|-----------------------------|
| Crop/Use  | Application Timing  | Maximum Product Oz/A per Single Application | Maximum AI lb/A per Single Application | Maximum Oz/A of Product per Year | Maximum AI lb/A per Year | Maximum Number of Applications per Year | Minimum Treatment Interval (Days) | Pre- Harvest Interval, Days |
| Pre-plant burndown  | Apply before planting or shortly after planting, but prior to emergence of wheat (including durum), barley, oat, triticale, soybeans and field corn.<br>Apply HARMONY GT XP herbicide as a burndown treatment up to the day of planting grain sorghum and rice.<br>Apply HARMONY GT XP herbicide as a burndown treatment at least 7 days prior to planting cotton.<br>Apply HARMONY GT XP herbicide as a burndown treatment before planting any other crop (including sugarbeets or canola) at least 45 days prior to planting. | 0.6   | 0.0281                                 | 1.0                              | 0.0469                   | 2                                       | 7(cotton)                         | NA                          |
| Post Harvest  | May be used as a burndown treatment to crop stubble when the majority of weeds have emerged and are actively growing.   | 0.6   | 0.0281                                 | 1.0                              | 0.0469                   | 2                                       | 14                                | NA                          |

## PRE-PLANT BURNDOWN PRECAUTIONS:

Cotton: 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.

## 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.

## **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 above, always include a tank mix partner (refer to TANK MIXTURES).

#### ***Wheat, Barley and Triticale***

Apply 0.5 ounce (0.0234 lb ai/A) HARMONY GT XP herbicide per acre to wheat (including durum), barley or triticale for control or partial control of the weeds listed above.

Use 0.6 ounce (0.0281 lb ai/A) HARMONY GT XP herbicide 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 (0.0141 lb ai/A) HARMONY GT XP herbicide 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 herbicide may be made provided the total amount of HARMONY GT XP herbicide applied to the crop does not exceed 1.0 ounce per acre (0.0469 lb ai/A).

#### ***Oat (Spring and Winter)***

Apply 0.3 to 0.4 ounce (0.0141 to 0.0188 lb ai/A) HARMONY GT XP herbicide 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 above, always include a tank mix partner (refer to TANK MIXTURES).

## CEREALS RESTRICTIONS

- **Do not** make more than one application of HARMONY GT XP herbicide per year on oat.
- When using HARMONY GT XP herbicide in tank mixes or sequential applications with other products containing thifensulfuron methyl, **do not** exceed the amount of ai/A in the columns below:

| Active Ingredient in HARMONY GT XP herbicide: Thifensulfuron-methyl |  |   |  |                                  |                          |   |                                   |  |
|---|--|---|--|----------------------------------|--------------------------|---|-----------------------------------|--|
| Crop/Use  | Application Timing                                 | Maximum Product Oz/A per Single Application | Maximum AI lb/A per Single Application | Maximum Oz/A of Product per Year | Maximum AI lb/A per Year | Maximum Number of Applications per Year | Minimum Treatment Interval (Days) | Pre-Harvest Interval, Days   |
| Wheat (Including Durum), Barley, Triticale                          | After 2-leaf stage but before flag leaf is visible | 0.6   | 0.0281                                 | 1.0                              | 0.0469                   | 2                                       | 14                                | 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. |
| Oats (Winter)   | After 2-leaf stage but before flag leaf is visible | 0.4   | 0.0188                                 | 0.4                              | 0.0188                   | 1                                       | -                                 | 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. |
| Oats (Spring)   | After 3-leaf stage but before jointing             | 0.4   | 0.0188                                 | 0.4                              | 0.0188                   | 1                                       | -                                 | 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. |

## **SPECIFIC WEED INSTRUCTIONS**

**Common chickweed and wild buckwheat:** For best results, apply a minimum of 0.5 ounce (0.0234 lb ai/A) HARMONY GT XP herbicide per acre plus surfactant when all or the majority of weeds have germinated and are past the cotyledon stage. Apply HARMONY GT XP herbicide when weeds are less than 3 inches tall or across.

**Kochia:** Naturally occurring biotypes resistant to HARMONY GT XP herbicide are known to occur. For best results, use HARMONY GT XP herbicide in a tank mix with dicamba and 2,4-D, or bromoxynil and 2,4-D containing products. Apply HARMONY GT XP herbicide 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 (0.0234 to 0.0281 lb. ai/A) HARMONY GT XP herbicide 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 herbicide of these weeds are known to occur. For best results, use HARMONY GT XP herbicide in a tank mix with dicamba and 2,4-D, or bromoxynil and 2,4-D containing products. Apply HARMONY GT XP herbicide 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 (0.0234 to 0.0281 lb. ai/A) HARMONY GT XP herbicide 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 (0.0281 lb. ai/A) of HARMONY GT XP herbicide. 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 herbicide plus metribuzin may result in reduced control of wild garlic.

**Wild radish:** For best results, apply 0.5 to 0.6 ounce (0.0234 to 0.0281 lb. ai/A) HARMONY GT XP herbicide 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. Make Fall applications prior to hardening-off of plants.

**Volunteer ExpressSun®/ Clearfield® sunflower** For best results, use HARMONY GT XP herbicide in a tank mix with, dicamba and 2,4-D or MCPA (ester or amine), or bromoxynil and 2,4-D containing products.

### **SPECIFIC WEED TANK MIXTURES**

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. If the instructions on the tank mix partner label conflicts with this HARMONY GT XP herbicide label, **do not** use in a tank mixture with HARMONY GT XP herbicide.

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

HARMONY GT XP herbicide 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.

***Red River Valley and adjacent areas of North Dakota and Minnesota:*** For best results, add the ester formulations of 2,4-D or MCPA herbicides to the tank at labeled rates. No additional surfactant is needed with this mixture.

***Other areas:*** For best results, add the ester formulations of 2,4-D or MCPA herbicides to the tank at labeled rates. Nonionic surfactant may be added to the mixture at labeled rates; 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***

HARMONY GT XP herbicide may be tank mixed with products containing the active ingredient dicamba at labeled rates. 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 further use instructions. Tank mixes of HARMONY GT XP herbicide plus dicamba may result in reduced control of some broadleaf weeds.

#### ***With 2,4-D (amine or ester) and Dicamba***

HARMONY GT XP herbicide 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 herbicide plus products containing the active ingredient dicamba plus products containing the active ingredient 2,4-D or MCPA ester or amine at labeled rates 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-leafstage.

#### ***With Bromoxynil containing products***

HARMONY GT XP herbicide 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 labeled rates. Note that tank mixes of HARMONY GT XP herbicide plus bromoxynil may result in reduced control of Canada thistle.

***With Starane (Starane® Flex herbicide, Starane® NXT herbicide, Starane® Ultra herbicide), Colt®+Salvo® Herbicide, Colt+Sword® Herbicide "***

For improved control of Kochia (2-4" tall) HARMONY GT XP herbicide may be tank mixed with Starane, Colt+ Salvo, or Colt+ Sword at labeled rates. 2,4-D and MCPA herbicides (preferably ester formulations) may be tank mixed with HARMONY GT XP herbicide plus Starane. Consult local guidance and the "TANK MIXTURES" section of this label for additional information.

***With Maverick® Herbicide***

HARMONY GT XP herbicide 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 FMC herbicide label.

***With Aim® EC Herbicide***

HARMONY GT XP herbicide can be tank mixed with Aim EC herbicide for improved control of weeds in wheat and barley. Refer to the Aim EC herbicide 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® herbicide label conflict with the instructions on the FMC herbicide label.

***With Stinger® Herbicide, Curtail® Herbicide, or Curtail® M Herbicide or WideMatch® Herbicide***

HARMONY GT XP herbicide 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 specific product 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 FMC herbicide label.

***With Express® herbicide (with TotalSol® Soluble Granules) or Express® XP herbicide (with TotalSol® Soluble Granules)***

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

***With ALLY® or ALLY® XP Herbicide***

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

***With "Everest"(Everest®2.0 Herbicide, Everest® 3.0 AG, Everest® 3.0) Herbicide***

HARMONY GT XP herbicide can be tank mixed with Everest herbicides for improved control of weeds in spring wheat. Refer to the Everest 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 "Everest" label conflict with the instructions on the FMC herbicide label.

***With AXIAL herbicides (Axial® Bold, Axial® Star, Axial® XL)***

HARMONY GT XP herbicide can be tank mixed with "Axial" herbicides (Axial® Bold, Axial® Star, Axial® XL) for improved control of wild oat in wheat and barley. For best results, when tank mixed with Axial, **do not** use less than 0.5 ounce (0.0234 lb ai/A) HARMONY GT XP herbicide per acre. Tank mix HARMONY GT XP herbicide with Axial herbicides at labeled rates for a greater spectrum of broadleaf weed control.

HARMONY GT XP herbicide can be tank mixed with "Axial" herbicides (Axial® Bold, Axial® Star, Axial® XL) for improved control of weeds in spring wheat. 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 specific product labels for information regarding use restrictions, labeled crops, rotational cropping intervals, sprayer cleanup, use precautions and other information. The most restrictive provisions will apply. **Do not** use the tank mix if any restrictions on the specific product labels conflict with the instructions on the FMC herbicide label.

***With Other Grass Control Products***

HARMONY GT XP herbicide can be tank mixed with grass control products. Antagonism generally does not occur. However, FMC advises that you first consult your state experiment station, university, or extension agent, Agricultural dealer, or FMC representative as to the potential for antagonism before using the mixture. If no information is available, limit the initial use of HARMONY GT XP herbicide and the grass product to a small area.

***With Fungicides***

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

***With Insecticides***

HARMONY GT XP herbicide may be tank mixed or used sequentially with insecticides registered for use on listed 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 herbicide with products containing organophosphate insecticides 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.

### ***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 herbicide in fertilizer solution. HARMONY GT XP herbicide 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 herbicide 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 FMC representative for specific instructions before adding an adjuvant to these tank mixtures.

If 2,4-D or MCPA is included with HARMONY GT XP herbicide 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 herbicide in tank mix with 2,4-D ester or MCPA ester and liquid nitrogen fertilizer solutions. Consult your agricultural dealer, consultant, field advisor, or FMC 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 FMC representative for specific instructions before using nitrogen fertilizer carrier solutions. Liquid nitrogen fertilizer solutions that contain sulfur can increase crop response.

### **SPECIFIC WEED RESTRICTIONS:**

- **Do not** apply HARMONY GT XP herbicide 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 herbicide plus "Malathion" because crop injury will result.
- **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 trifoliolate 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 herbicide at a rate of 0.083 ounce per acre (0.0039 lb. ai/A) for selective postemergence broadleaf weed control on conventional soybean varieties.

HARMONY GT XP herbicide at up to 0.33 ounce per acre (0.0155 lb. ai/A) may be used on soybeans designated "STS"(Sulfonylurea Tolerant). Severe injury or death of soybeans will result if any soybeans not designated as "STS" (Sulfonylurea Tolerant) are treated with more than 0.083 ounce of HARMONY GT XP herbicide(0.0039 lb. ai/A). Multiple applications of HARMONY GT XP herbicide may be applied to Sulfonylurea Tolerant (STS) soybeans provided no more than a total of 0.33 ounce (0.0155 lb. ai/A) is applied per year.

### SPRAY ADDITIVES

Applications of HARMONY GT XP herbicide 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, HARMONY GT XP herbicide will control the following weeds

| <b>Weeds Controlled</b> | <b>Maximum size (inches) at Application</b> |
|-------------------------|---|
| Annual Smartweeds       | 6   |
| Lambsquarters           | 4   |
| Pigweed                 |   |
| Rough (red root)        | 12  |
| Other species           | 8   |
| Velvetleaf              | 6   |
| Wild Mustard            | Up to 4" in dia.                            |
| <b>Partial Control*</b> | <b>Maximum size (inches) at Application</b> |
| 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 Sulfonylurea Tolerant (STS) soybeans.



## TANK MIXTURES IN SOYBEANS

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

### Restriction:

**Do not** tank mix HARMONY GT XP herbicide with organophosphate insecticides, or apply HARMONY GT XP herbicide 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 herbicide may be tank mixed with postemergence grass herbicides including Assure® II herbicide.

With postemergence grass herbicides, use surfactant rate (concentration) of 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 FMC supplemental labeling. Include a nonionic surfactant with the tank mix of HARMONY GT XP herbicide and post grass herbicides including Assure II herbicide.

### *With Pursuit® 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. Use different control measures to control grassy weeds, including an application of Assure II herbicide 1 day before or 7 days after applying HARMONY GT XP herbicide plus Pursuit herbicide. Conversely, a soil applied preemerge grass herbicide may be used in a planned weed control program with HARMONY GT XP herbicide plus Pursuit herbicide.

Apply a tank mix of 0.083 ounce per acre (0.0039 lb. ai/A) of HARMONY GT XP herbicide plus Pursuit herbicide at labeled rates for postemerge control of the broadleaf weeds listed in the table below. Best results are obtained when the HARMONY GT XP herbicide plus Pursuit herbicide 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.

| <b>WEEDS CONTROLLED</b> | <b>Size (Height in Inches)</b> |
|-------------------------|--------------------------------|
| 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 trifoliolate of the soybean plant has fully expanded. Applications of HARMONY GT XP herbicide plus Pursuit herbicide tank mixes must be made before soybeans have begun to flower. Maintain an interval of at least 85 days between an application of Pursuit herbicide and soybean harvest.

Apply to soybeans that are free from stress and are actively growing. Stress may be caused by abnormally hot or cold weather, growing conditions including drought or water-saturated soil, disease, soil nutrient deficiencies including iron chlorosis, or injury from nematodes, insects, or prior herbicide applications.

Applications of HARMONY GT XP herbicide plus Pursuit herbicide 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.

## SOYBEAN RESTRICTIONS:

When using HARMONY GT XP herbicide in tank mixes or sequential applications with other products containing thifensulfuron methyl, **do not** exceed the amount of ai/A in the columns below:

| Active Ingredient in HARMONY GT XP herbicide: Thifensulfuron-methyl |   |   |  |                                  |                          |   |                                   |  |
|---|---|---|--|----------------------------------|--------------------------|---|-----------------------------------|--|
| Crop/Use  | Application Timing  | Maximum Product Oz/A per Single Application | Maximum AI lb/A per Single Application | Maximum Oz/A of Product per Year | Maximum AI lb/A per Year | Maximum Number of Applications per Year | Minimum Treatment Interval (Days) | Pre- Harvest Interval, Days  |
| Soybeans (non-STS (Sulfonylurea Tolerant) varieties)                | Apply to soybeans any time after the first trifoliolate has expanded fully. Apply no later than 60 days before harvest. | 0.083                                       | 0.0039                                 | 0.083                            | 0.0039                   | 1                                       | -                                 | 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. |
| STS (Sulfonylurea Tolerant) Soybeans                                | Apply to soybeans any time after the first trifoliolate has expanded fully. Apply no later than 60 days before harvest. | 0.33  | 0.0155                                 | 0.33                             | 0.0155                   | 2                                       | 14                                | 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. |

## ADJUVANTS

Post emerge applications of HARMONY GT XP herbicide tank mixed with Pursuit herbicide 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 crop oil concentrates or methylated seed oil products.
- Use a high quality liquid nitrogen fertilizer including 28-0-0, or 10-34-0 at labeled rates. 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 labeled rates.

**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

Soybeans, field corn, grain sorghum, rice, safflower, wheat, barley, oats, and triticale may be planted anytime after the application of HARMONY GT XP herbicide. Cotton may be planted 7 days after application. Any other crop may be planted 45 days after the application of HARMONY GT XP herbicide. Refer to the Pursuit herbicide 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

Refer to the Pursuit herbicide label for additional use directions, use restrictions, and precautions. The most restrictive provision on either the Pursuit herbicide label, or this HARMONY GT XP herbicide label will apply.

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

## PRECAUTIONS

Sequential applications of HARMONY GT XP herbicide following post emerge Pursuit herbicide treatments are not advised because:

- Crop injury from sequential post emerge applications of HARMONY GT XP herbicide following Pursuit herbicide 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 herbicide application will be stressed at the time of the sequential treatment. This will result in unsatisfactory weed control, particularly for stress sensitive weeds including lambsquarters.
- Weeds that have recovered from a Pursuit herbicide application will typically be larger than labeled size by the time soybeans may be safely treated with a HARMONY GT XP herbicide application. This will result in unsatisfactory weed control.

HARMONY GT XP herbicide plus Pursuit herbicide treatments may be tank mixed with Assure II herbicide to control volunteer corn and shattercane. Pursuit herbicide will reduce the activity of Assure II herbicide on all other grasses. For broad spectrum grass control, apply Assure II herbicide 1 day before, or 7 days after Pursuit herbicide treatments. Refer to the Assure II herbicide label for 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.

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 directions.

***With reduced rates of Pursuit herbicide for control of nightshade in soybeans in the States of Indiana, Iowa, Michigan, Minnesota, Ohio, Pennsylvania, South Dakota and Wisconsin***

HARMONY GT XP herbicide at 0.083 ounce per acre (0.0039 lb. ai/A), may be tank mixed with labeled rates of Pursuit herbicide for postemergence control of weeds listed on the HARMONY GT XP herbicide labels, and for the control of eastern black nightshade less than 2 inches tall. Refer to the HARMONY GT XP herbicide labels for other weeds controlled and maximum heights.

Best results are obtained when either HARMONY GT XP herbicide is tank mixed with Pursuit herbicide 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 specified for the control of broadleaf weeds only. Use other measures to control grassy weeds.

## 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. Use a minimum of 5 gallons of water per acre. Consult the respective product labels for special directions for aerial application.

## PRECAUTIONS

- Apply to soybeans that are free from stress and are actively growing. Stress may be caused by abnormally hot or cold weather, growing conditions including drought or water-saturated soil, disease, soil nutrient deficiencies including iron chlorosis, or injury from nematodes, insects, or prior herbicide applications.
- Applications of HARMONY GT XP herbicide when tank mixed with Pursuit herbicide 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 trifoliolate of the soybean has fully expanded and the plants are actively growing, but before soybeans begin to flower.
- Refer to the HARMONY GT XP herbicide or Pursuit 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 (Sulfonylurea Tolerant) stacked trait" soybeans. For tank mixtures of HARMONY GT XP herbicide 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 ounce (0.0155 lb. ai/A) of HARMONY GT XP herbicide per acre with a labeled rate of glyphosate. Refer to the HARMONY GT XP herbicide 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 herbicide plus glyphosate tank mix may be applied to "STS" (Sulfonylurea Tolerant) X "Roundup Ready" stacked trait soybeans anytime after the first trifoliolate has expanded fully and up until 60 days before soybeans are harvested.

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

## RESTRICTIONS

**Do not** apply more than 0.33 ounce (0.0155 lb. ai/A) HARMONY GT XP herbicide per acre per growing season.

### **Adjuvants**

When tank mixing HARMONY GT XP herbicide with glyphosate, it is advised to add ammonium sulfate (AMS) at 4.25-17lb per 100 gal of spray mixture. See the glyphosate manufacturer's label for specific ammonium nitrogen instructions. When velvet leaf 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 herbicide 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 allow for addition of surfactants. See the manufacturer's specific surfactant instructions.

## SEQUENTIAL APPLICATIONS IN SOYBEANS

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

## FIELD CORN

### APPLICATION INFORMATION

HARMONY GT XP herbicide may be applied to 2-6 leaf field corn (1-5 collars, up to 16 inches tall) at a rate of 0.083 ounce per acre (0.0039 lb. ai/A). **Do not** apply to field corn taller than 16 inches or 5 collars, whichever is more restrictive.

HARMONY GT XP herbicide 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 herbicide labels or technical bulletins.

Apply HARMONY GT XP herbicide 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 FMC have access to all seed company data. Consequently, injury arising from the use of HARMONY GT XP herbicide on these types of corn is the responsibility of the user. Consult with your seed supplier before applying HARMONY GT XP herbicide to any of these corn types.

**Do not** make more than one application per year.

### FIELD CORN RESTRICTIONS:

- **Do not** apply to sweet corn, popcorn or field corn grown for seed.
- When using HARMONY GT XP herbicide in tank mixes or sequential applications with other products containing thifensulfuron methyl, **do not** exceed the amount of ai/A in the columns below:

| Active Ingredient in HARMONY GT XP herbicide: Thifensulfuron-methyl |  |   |  |                                  |                          |   |                                   |  |
|---|--|---|--|----------------------------------|--------------------------|---|-----------------------------------|--|
| Crop/Use  | Application Timing   | Maximum Product Oz/A per Single Application | Maximum AI lb/A per Single Application | Maximum Oz/A of Product per Year | Maximum AI lb/A per Year | Maximum Number of Applications per Year | Minimum Treatment Interval (Days) | Pre- Harvest Interval, Days  |
| Field Corn  | Apply to 2-6 leaf field corn with 1-5 collars or up to 16 inches tall. <b>Do not</b> apply to field corn taller than 16 inches or 5 collars, whichever is more restrictive. <b>Do not</b> apply to sweet corn, popcorn or field corn grown for seed. | 0.083                                       | 0.0039                                 | 0.083                            | 0.0039                   | 1                                       | -                                 | 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. <b>Do not</b> graze or feed forage or grain from treated field corn to livestock within 30 days of application. |

### 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 herbicide 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 including 28% UAN (2-4 qt/acre) of ammonium sulfate (2-4 lb/acre).

When tank mixing HARMONY GT XP herbicide with glyphosate, it is advised 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 herbicide 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 at labeled rates allow for addition of surfactants. See the manufacturer's specific surfactant instructions.

## **SOIL INSECTICIDE INTERACTIONS**

HARMONY GT XP herbicide 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 herbicide may be applied to corn previously treated with non-organophosphate (OP) soil insecticides regardless of soil type.

### **• RESTRICTIONS**

- **Do not** apply HARMONY GT XP herbicide to corn previously treated with Counter 15G.

### **• PRECAUTIONS**

- Applications of HARMONY GT XP herbicide to corn previously treated with Terbufos ,Chlorpyrifos or Phorate containing products may cause unacceptable crop injury, especially on soils of less than 4% organic matter.
- Applications of HARMONY GT XP herbicide to corn previously treated with Chlorpyrifos, or other organophosphate insecticides not listed above, may result in temporary crop injury.

## **POST HARVEST**

### **APPLICATION TIMING**

HARMONY GT XP herbicide 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 herbicide at 0.3 to 0.6 ounce per acre (0.0141 to 0.0281 lb ai/A) to crop stubble after harvest. Use the 0.6 ounce per acre rate (0.0281 lb ai/A) 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). Apply HARMONY GT XP herbicide 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 herbicide may also be made provided the total amount of HARMONY GT XP herbicide applied does not exceed 1.0 ounce per acre (0.0469 lb ai/A) per year.

### **TANK MIXTURES IN POST HARVEST APPLICATIONS**

Use HARMONY GT XP herbicide as a post harvest treatment to crop stubble, tank mixed with other herbicides that are registered for use in fallow.

## **PRODUCT USE AND APPLICATION DIRECTIONS - ALL CROPS AND USES**

### ***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 advised for 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**

**Do not** apply by air in the State of New York.

In wheat, barley, oats, triticale, post-harvest burndown, pre-plant 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 herbicide 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 herbicide. 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 FMC fact sheets and technical bulletins prior to using an adjuvant system. If another herbicide is tank mixed with HARMONY GT XP herbicide, select adjuvants authorized for use with both products.

Products must contain only EPA-exempt 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 FMC 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 FMC product management. Consult separate FMC 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), including 28%N or 32%N, or 2 lb/acre of a spray-grade ammonium sulfate (AMS). Use 4 qt/acre UAN or 4 lb/acre AMS under arid conditions.

## **CROP ROTATION**

Soybeans, field corn, grain sorghum, rice, safflower, wheat, barley, oats, and triticale may be planted anytime after the application of HARMONY GT XP herbicide. Cotton may be planted 7 days after application. Any other crop may be planted 45 days after the application of HARMONY GT XP herbicide.

## **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 HARMONY GT XP herbicide.

1. Fill the tank 1/4 to 1/3 full of water.
2. While agitating, add the required amount of HARMONY GT XP herbicide.
3. Continue agitation until the HARMONY GT XP herbicide is fully dispersed, at least 5 minutes.
4. Once the HARMONY GT XP herbicide is fully dispersed, maintain agitation and continue filling tank with water. Mix HARMONY GT XP herbicide thoroughly 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 herbicide.
6. If the mixture is not continuously agitated, settling will occur. If settling occurs, thoroughly re-agitate before using.
7. Apply HARMONY GT XP herbicide spray mixture within 24 hours of mixing to avoid product degradation.
8. If HARMONY GT XP herbicide and a tank mix partner are to be applied in multiple loads, pre-slurry the HARMONY GT XP herbicide 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 herbicide.

## **SPRAY EQUIPMENT**

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. 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 herbicide 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 herbicide" section of this label.



### **AT THE END OF THE DAY**

During periods when multiple loads of HARMONY GT XP herbicide are applied, at the end of each day of spraying, rinse the interior of the tank with fresh water and then partially fill, and flush the boom and hoses. This will prevent the buildup of dried pesticide deposits which can accumulate in the application equipment.

### **AFTER SPRAYING HARMONY GT XP herbicide 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 herbicide 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 an FMC-approved cleaner can be used in the cleanout procedure. Carefully read and follow the individual cleaner instructions. Consult your Ag dealer, applicator, or FMC 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-clean aerial spray tanks prior to performing the above cleanout procedure to facilitate the removal of any caked deposits.
3. When HARMONY GT XP herbicide is tank mixed with other pesticides, examine all cleanout procedures for each product and follow the most rigorous procedure.
4. In addition to this cleanout procedure, follow all pre cleanout guidelines on subsequently applied products, as per the individual product labels.
5. Where routine spraying practices include shared equipment frequently being switched between applications of HARMONY GT XP herbicide and applications of other pesticides to HARMONY GT XP herbicide-sensitive crops during the same spray season, it is advised that a sprayer be dedicated to HARMONY GT XP herbicide to further reduce the chance of crop injury.

## MANDATORY SPRAY DRIFT MANAGEMENT

### Ground Boom Applications:

- Apply with the nozzle height advised by the manufacturer, but no more than 3 feet above the ground or crop canopy, unless making a turf, pasture, or rangeland application, in which case applicators may apply with a nozzle height no more than 4 feet above the ground.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- **Do not** apply when wind speeds exceed 10 miles per hour at the application site.
- **Do not** apply during temperature inversions.

### Aerial Applications:

- **Do not** release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a Medium or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use one-half swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **Do not** apply when wind speeds exceed 10 miles per hour at the application site.
- **Do not** apply during temperature inversions.

### Boom-less Ground Applications:

- Applicators are required to use a Medium or coarser droplet size (ASABE S572.1) for all applications.
- **Do not** apply when wind speeds exceed 10 miles per hour at the application site.
- **Do not** apply during temperature inversions.

## SPRAY DRIFT MANAGEMENT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.  
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

### IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure advised for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### Controlling Droplet Size – Aircraft

- Adjust Nozzles - Follow nozzle manufacturers directions for setting up nozzles. Generally, to reduce fine droplets, orient nozzles parallel with the airflow in flight.

### BOOM HEIGHT – Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, keep the boom level with the crop and minimize bounce.

### RELEASE HEIGHT - Aircraft

Higher release heights increase the potential for spray drift. When applying aurally to crops, **do not** release spray at a height greater than 10 ft above the crop canopy, unless a greater application height is necessary for pilot safety.

## **SHIELDED SPRAYERS**

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

## **TEMPERATURE AND HUMIDITY**

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

## **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or 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. Avoid applications during temperature inversions.

## **WIND**

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.** Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## **HANDHELD TECHNOLOGY APPLICATIONS:**

Take precautions to minimize spray drift.

## **BOOM-LESS GROUND APPLICATIONS**

Setting nozzles at the lowest effective height will help to reduce the potential for spray drift.

## **DRIFT CONTROL ADDITIVES**

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

## IDENTIFICATION INFORMATION FOR PRODUCTS REFERENCED IN THIS LABEL

| REGISTERED PRODUCTS REFERENCED IN THIS LABEL FOR TANK MIXTURES<br>OR MENTIONED FOR OTHER REASONS |   |                            |
|--|---|----------------------------|
| Product Name   | Active Ingredient(s)                        | EPA<br>Registration Number |
| AIM® EC Herbicide  | Carfentrazone-ethyl                         | 279-3241                   |
| Assure® II Herbicide   | Quizalofop P-Ethyl                          | 352-541                    |
| Axial® Bold  | Fenoxaprop-P-Ethyl + Pinoxaden              | 100-1632                   |
| Axial® Star  | Fluroxypyr + Pinoxaden                      | 100-1389                   |
| Axial® XL  | Pinoxaden                                   | 100-1256                   |
| Colt®+Salvo® Herbicide   | 2,4-D + Fluroxypyr                          | 34704-1010                 |
| Colt®+Sword® Herbicide   | 2,4-D + Fluroxypyr                          | 34704-1011                 |
| Curtail® Herbicide   | Clopyralid                                  | 62719-48                   |
| Curtail® M Herbicide   | Clopyralid + MCPA                           | 62719-86                   |
| EXPRESS® Herbicide (with TotalSol® Soluble Granules)   | Tribenuron methyl                           | 279-9594                   |
| Everest®2.0 Herbicide  | Flucarbazone-Sodium                         | 66330-391                  |
| Everest® 3.0 AG  | Flucarbazone-Sodium                         | 66330-433                  |
| Everest® 3.0 Herbicide   | Flucarbazone-Sodium                         | 66330-429                  |
| HARMONY® Extra SG (with TotalSol® Soluble Granules)  | Thifensulfuron methyl,<br>Tribenuron methyl | 279-9602                   |
| Maverick® Herbicide  | Sulfosulfuron                               | 524-500                    |
| Pursuit® Herbicide   | Imazethapyr                                 | 241-310                    |
| Starane® Flex Herbicide,   | Florasulam + Fluroxypyr                     | 62719-604                  |
| Starane® NXT Herbicide,  | Bromoxynil + Fluroxypyr                     | 62719-557                  |
| Starane® Ultra hHerbicide  | Fluroxypyr                                  | 62719-577                  |
| Stinger® Herbicide   | Clopyralid                                  | 62719-73                   |
| Widematch® Herbicide   | Clopyralid + Fluroxypyr                     | 62719-512                  |

## 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 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 FMC 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 FMC 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 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 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 CHEMTREC (Transportation and Spills) at 1-800-424-9300, day or night.

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