

# **SOYBEAN - REGION 1 - PARTIAL OF ANNUAL GRASS**

## General Information

### PRODUCT INFORMATION

Torment is a selective herbicide which may be applied preplant, preemergence or postemergence for control or suppression of broadleaf weeds, grasses and sedges in soybeans.

Certain germinating broadleaf weeds, grasses and sedges may be controlled or suppressed by soil residual activity from either preplant, preemergent or postemergent applications if rainfall occurs shortly after application. The extent and consistency of soil activity is dependent upon soil characteristics, ground cover, amount of rainfall following application and the rate of TORMENT used.

TORMENT also kills weeds by root and/or foliage uptake and rapid translocation to the growing points. Adequate soil moisture is important for optimum TORMENT activity. When adequate soil moisture is present, TORMENT will provide residual control of susceptible germinating weeds, activity on established weeds will depend on the weed species and the location of its root system in the soil.

TORMENT provides effective weed control in conservation tillage systems designed to meet conservation compliance requirements. TORMENT can be applied as an early preplant, preplant incorporated, or preemergence treatment in soybeans. It can also be applied in conventional, minimum tillage and no-till production systems. The application method chosen will depend on the anticipated weed spectrum and applicator preference. Adequate soil moisture is required for optimum activity.

Rainfall or overhead irrigation is necessary to move TORMENT into the weed germination zone for effective weed control. The amount of rainfall or irrigation required following application depends on existing soil moisture, soil texture and organic matter content. Sufficient water to moisten the soil to a depth of 2 inches is normally adequate. If adequate moisture is not received within 7 days after treatment, a cultivation or alternative herbicide is recommended to control escaped weeds. When adequate moisture is received after dry conditions, TORMENT will provide residual control of susceptible germinating weeds; activity on established

weeds will depend on the weed species and the location of its root system in the soil.

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

Occasionally, internode shortening and/or temporary yellowing of crop plants may occur following TORMENT applications. These effects occur infrequently and are temporary. Normal growth and appearance should resume within 1 to 2 weeks.

Optimum weed control is achieved by postemergent applications of TORMENT to young, actively growing broadleaf weeds that are not under stress from moisture, temperature, low soil fertility, mechanical or chemical injury.

Foundation Treatment for Planned Two-pass Weed Control Programs:

TORMENT at 1 pint per acre may be applied in conventional and glyphosate-tolerant soybeans as a preemergence application on all soils to reduce competition from weeds for a period of up to 5 weeks when followed by a planned postemergence herbicide application (See Weeds Controlled by TORMENT table for a complete list of weeds). Consult the postemergence herbicide label for weeds controlled, optimum weed size, application rate, additional use directions, precautions, and limitation before use.

Postemergence herbicide application following TORMENT application.

To provide additional control of certain weeds, TORMENT can be applied alone or in tank mixture and then followed by an application of a postemergence herbicide.

Always read and follow the recommendations, restrictions and limitations for all products whether used alone, sequentially or in a tank mix. The most restrictive labeling of any product used applies.

## RESISTANCE MANAGEMENT

TORMENT is a Group 14 herbicide (a protoporphyrinogen oxidase (PPO) inhibitor) and a Group 2 herbicide (an acetolactate synthase ALS inhibitor) based on the mode of action classification system of the Weed Science Society of America and as classified by the Herbicide Resistant Action Committee (HRAC). Any weed population may contain or develop plants naturally resistant to TORMENT and other Group 14 and 2 herbicides. Weed species with natural or acquired resistance to

Group 14 and 2 may eventually dominate the weed population if Group 14 and 2 herbicides are used repeatedly in the same field or in successive years as the primary method of control for targeted species. Such resistant weed plants may not be effectively managed using Group 14 and 2 herbicides but may be effectively managed utilizing another herbicide alone or in mixtures from a different Group and/or by using cultural or mechanical practices. However, the herbicide mode of action classification, by itself may not adequately address specific weeds that are resistant to specific herbicides.

To delay herbicide resistance, consider using diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides:

- Avoid the consecutive use of TORMENT or other target site of action Group 14 and 2 herbicides that have a similar target site of action on the same weed species.
- Using tank-mixtures or premixes with herbicides from different target site of action Groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or premix rate on the weed(s) of concern.
- Base herbicide use on a comprehensive Integrated Pest Management (IPM) and Integrated Resistance Management (IRM) program.
- Use labeled rate and directions for use to delay selection for resistance.
- Monitor treated weed populations to facilitate the early identification of weeds shifts and/or weed resistance development (also provides direction on future weed management practices).
- Control escaped weeds by implementing measures to avoid allowing weeds to reproduce by seed or to proliferate vegetatively is one of the best ways to contain resistant populations.
- Contact your local extension specialist, certified crop advisor, and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

For ground applications:

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

For aerial applications:

- The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or 90% of the rotor blade diameter. Nozzles must always point backward parallel with the air stream and never be pointed downward more than 45°.

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

The applicator should be familiar with and take into account the information covered in the Spray Drift Management section.

To avoid spray drift, do not apply under windy conditions. Avoid spray overlap as crop injury may result.

## CLEANING

Wash sprayer system thoroughly with clean water and a commercial tank cleaner before and immediately after each use.

Do not use the same sprayer on sensitive crops without thoroughly cleaning the sprayer as even small residues of TORMENT in the tank may cause injury to these crops.

## APPLICATION DIRECTIONS

### Ground Application

Use sufficient spray volume and pressure to ensure complete coverage of the target. A minimum spray volume of 15 gals /A and 30-60 psi at the nozzle tip is recommended. On large weeds and/or dense foliage, use 60 psi and a minimum of 20 gals /A to ensure coverage of weed foliage.

The use of flat fan nozzles will result in the most effective postemergence application of TORMENT. The sprayer must be calibrated to provide the proper volume and rate per acre. In addition, the boom and nozzle height must be adjusted to provide complete coverage of target weeds.

**DO NOT USE FLOOD TYPE OR OTHER SPRAY NOZZLES WHICH DELIVER COARSE**

## LARGE DROPLET SPRAYS.

### Band Applications

Thorough weed coverage is important for postemergent control. Best coverage is obtained with a minimum of two nozzles, one directed to each side of the planted row. Application with a single nozzle directed over the top of the row is not recommended for postemergence applications but is suitable for preemergence applications. Cultivation of untreated areas may be needed following band applications. When making postemergence band applications and cultivating in the same operation, position nozzles in advance of the cultivation device. This will reduce dust in the spray area. Dust can intercept spray reducing weed coverage, resulting in less than adequate weed control.

Calculate the amount of herbicide and water volume needed for postemergence band treatment by the following formulas.

Band width in inches Broadcast rate per acre = Band herbicide rate per acre

Broadcast volume per acre = Band herbicide rate per acre

### Aerial Application

Use sufficient spray volume and pressure to ensure complete coverage of the target. A minimum of 5 gals /A of spray mixture should be applied with a maximum of 40 PSI pressure. When broadleaf weed foliage is dense, use a minimum of 10 gals/A to ensure coverage of weed foliage.

### Cultivation

Cultivation prior to application is not recommended. Cultivation may put weeds under stress, reducing weed control. Timely cultivation 1-3 weeks after applying TORMENT may assist weed control.

### Rainfastness

TORMENT requires a 1 hour rain free period for best results when applied postemergence

## PRECAUTIONS

- A maximum of 1 pt of TORMENT (or a maximum of 0.25 lbs ai/A of fomesafen and 0.0625 lbs ai /A of imazethapyr from any product containing fomesafen or imazethapyr) may be applied per acre per year in Region 1 (see Regional Map).
- A maximum of 1 pt of TORMENT (or a maximum of 0.25 lbs ai/A of fomesafen and 0.0625 lbs ai /A of imazethapyr from any product containing fomesafen or imazethapyr) may be applied per acre on alternate years in Region 2 (see Regional Map).
- Tank mixes of TORMENT with other pesticides, fertilizers or any other additives except as specified on the label or other approved ADAMA supplemental labels may result in tank mix incompatibility, unsatisfactory performance and/or unsatisfactory crop injury.
- When organophosphate (such as Lorsban) or carbamate insecticides are tank mixed with TORMENT temporary injury may result to the treated crops.
- Apply postemergence to actively growing weeds. Avoid applying TORMENT to weeds or soybeans which are under stress from moisture, temperature, low soil fertility, mechanical or chemical injury, as reduced weed control and/or increased crop injury may result.
- Avoid overlapping spray swaths, as injury may occur to rotational crops.
- Use of TORMENT herbicide in accordance with label directions is expected to result in normal growth of rotational crops in most situations, however various environmental and agronomic factors make it impossible to eliminate all risks associated with the use of this product and therefore rotational crop injury is always possible. Under some conditions (such as heavy texture soil, high organic matter, low pH or low rainfall) TORMENT may cause injury to subsequent planted crops. Vegetable crops and particularly sugar beets are sensitive to TORMENT residues in the soil.
- To provide adequate spray coverage, ground speed must not exceed 10 MPH during application.

## RESTRICTIONS

- Do not apply this product through any type of irrigation system.
- Do not graze treated areas or harvest for forage or hay.
- Do not graze rotated small grain crops or harvest forage or straw for livestock.
- Do not apply within 85 days of soybean harvest.
- In New York State - Not for Sale or Use on Long Island.
- In Florida- Not for Use in Miami-Dade County.

### Replanting

If replanting is necessary in fields previously treated with TORMENT the field may be replanted to soybeans. Rework the soil no deeper than the treated zone.

Do not apply a second application of TORMENT or other fomesafen containing product as crop injury or illegal residues may occur in harvested crops. If tank-mix combinations were used, refer to product labels for any additional replanting instructions.

### Limitations, Restrictions, and Exceptions

#### REGION 1

#### Application Timing and Rate

Make one application per year at 1 pt/acre preemergence, No-till or reduced tillage, preplant incorporated or in burndown applications. TORMENT herbicide serves as a foundation treatment for a planned two-pass weed control program. TORMENT may be applied in conventional and glyphosate-tolerant soybeans as a preemergence application on all soils to reduce competition from weeds for a period of up to 5 weeks when followed by a planned postemergence herbicide application (See Use Pattern And Rates For Grass And Broad Leaf Weeds Controlled Or Partially Controlled By Torment table for a complete list of weeds).

Be sure to consult the postemergence herbicide label for weeds controlled, optimum weed size, application rate, additional use directions, precautions, and limitation before use.

Refer to the Use Pattern And Rates For Grass And Broad Leaf Weeds Controlled Or Partially Controlled By Torment table for specific recommendations on weed growth stages and rates. Best broad spectrum postemergence control of susceptible broadleaf weeds is obtained when TORMENT is applied early to actively growing weeds. This usually occurs 14 to 28 days after planting.

A maximum of 1 pt of TORMENT (or a maximum of 0.25 lbs ai/A of fomesafen and 0.0625 lbs ai /A of imazethapyr from any product containing fomesafen or imazethapyr) may be applied per acre per year (Region 1) or on alternate years (Region 2).

## SURFACE APPLICATIONS

TORMENT offers flexibility in that it can be utilized in all production tillage systems. It can be applied prior to planting (up to 45 days prior to planting); at planting in conventional, reduced tillage or no-till production systems; or after planting and before crop emergence.

For follow-up postemergence treatments refer to the Use Pattern And Rates For Grass And Broad Leaf Weeds Controlled Or Partially Controlled By Torment.

## NO-TILL OR REDUCED TILLAGE

Apply TORMENT treatments before, during or after planting. To ensure thorough coverage, use a minimum of 20 gallons of water per acre. Use higher gallonage for fields with dense vegetation or heavy crop residues. For maximum grass control, tank mix TORMENT with PROWL or Parallel PCS. To kill existing vegetation, Gramoxone, Parazone, Roundup Powermax or 2,4-D (early preplant - see 2,4-D label for limitations) may be tank-mixed with TORMENT alone or in combination with PROWL or Parallel. Gramoxone, Parazone, Roundup PowerMAX or 2,4-D should be deleted from the tank-mixture if vegetation is absent at the time of application.

Always read and follow the recommendations, restrictions and limitations for all products whether used alone, sequentially or in a tank mix. The most restrictive labeling of any product used applies.

NOTE: Adjust planters to ensure adequate soil coverage of seed.

For follow-up postemergence treatments refer to the Use Pattern And Rates For



## Grass And Broad Leaf Weeds Controlled Or Partially Controlled By Torment.

### PREEMERGENCE

TORMENT may be applied preemergence, before planting up though postemergence.

### PREPLANT INCORPORATED APPLICATIONS

TORMENT may be applied following land preparation and should be thoroughly incorporated to a depth of 1 to 2 inches. If crops are planted on beds, apply and incorporate after bed formation using PTO-driven equipment or a rolling cultivator. Maintain TORMENT in the surface 1 to 2 inches of the finished beds. Application may be made up to 45 days prior to planting soybeans.

Postemergence treatments include any product or combination of products labeled to control the specific weeds remaining in the field, including glyphosate (for example, Roundup) brands (for use on glyphosate-tolerant soybeans only) or Liberty brand (for use on LibertyLink Soybeans).

### USE DIRECTIONS FOR ADDITIONAL WEED PROBLEMS

#### Partial Control of Annual Grasses

Annual grasses listed in the USE PATTERN AND RATES FOR GRASS AND BROAD LEAF Weeds Controlled OR PARTIALLY CONTROLLED by TORMENT table may be partially controlled by postemergence applications and controlled or be partially controlled by preemergence applications of TORMENT at 1.0 pts /A. Consult Use Rate Table for maximum rate in each region. For full season broad-spectrum annual grass control Fusilade DX or Fusion herbicide should be used alone or in tank mix with TORMENT or should be followed with a post emergence program of Glyphosate or Liberty (in crops developed for tolerance to the respective herbicides). Consult Tank Mix section.

#### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Surface](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Surface](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Surface](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Surface](#)

Pre-Harvest Interval

85 days

Rates

[field\\_rates 0](#)

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Restricted Entry Interval

24 hours

Tillages

[Fallow/Reduced](#)

[No-Tillage](#)

Timings

[Preemergence \(Crop\)](#)

[Preplant Incorporated](#)

[Preemergence \(Weed\)](#)

[Postplant](#)