

GRAIN SORGHUM - PREEMERGENCE AND POSTEMERGENCE

General Information

General Information

Starane Ultra herbicide is a selective postemergence product for control of annual and perennial broadleaf weeds and volunteer potatoes in wheat, barley, oats, or triticale not under seeded with a legume, field corn, sweet corn, grain sorghum, and on-farm non-cropland.

Application Precautions and Restrictions

- Do not apply Starane Ultra directly to, or otherwise permit it to come in direct contact with, susceptible crops or desirable plants including, but not limited to, alfalfa, canola, cotton, lettuce, edible beans, grapes, lentils, mustard, peas, potatoes, radishes, soybeans, sugar beets, sunflowers, tomatoes, or tobacco.
- Avoid applications where proximity of susceptible crops or other desirable plants is likely to result in exposure to spray or spray drift.
- Do not contaminate irrigation ditches or water used for domestic purposes.
- Maximum Application Rate: Do not apply more than 0.7 pints per acre of Starane Ultra per growing season.
- Plant-back Restriction: If replanting is required, plant only those crops listed on the label or Federally approved supplemental labeling for Starane Ultra within 120 days following application.

Management of Kochia Biotypes

Research has suggested that many biotypes of kochia can occur within a single field. While kochia biotypes can vary in their susceptibility to Starane Ultra, all will be suppressed or controlled by the 0.4 pint per acre labeled rate. Application of Starane Ultra at rates below the 0.4 pint per acre rate can result in a shift to more tolerant biotypes within a field.

Best Resistance Management Practice: Extensive populations of dicamba tolerant

kochia have been identified in certain small grain and corn production regions (such as Chouteau, Fergus, Liberty, Toole, and Treasure counties in the state of Montana). In these areas, apply Starane Ultra at a minimum rate of 0.4 pint per acre for optimal control of dicamba tolerant kochia. In addition, Starane Ultra should be rotated with products that do not contain dicamba to minimize selection pressure. Use of these practices will preserve the utility of Starane Ultra for control of dicamba tolerant kochia biotypes.

Application Directions

Application Timing: Apply to actively growing weeds. Extreme growing conditions such as drought or near freezing temperatures prior to, at and following time of application may reduce weed control and increase the risk of crop injury at all stages of growth. Only weeds that are emerged at the time of application will be affected. Foliage that is wet at the time of application may decrease control. Applications of Starane Ultra are rain-fast within 1 hour after application.

Effect of Temperature on Herbicidal Activity: Herbicidal activity of Starane Ultra is influenced by weather conditions. Optimum activity requires active plant growth. The temperature range for optimum herbicidal activity is 55°F to 75°F. Reduced activity will occur when temperatures are below 45°F or above 85°F. Frost before application (3 days) or shortly after (3 days) may reduce weed control and crop tolerance.

Application Rates: Generally, application rates at the lower end of the specified rate range will be satisfactory for young, succulent growth of sensitive weed species. For less sensitive species, perennials, and under conditions where control is more difficult (plant stress conditions such as drought or extreme temperatures, dense weed stands and/or larger weeds) the higher rates within the rate range will be needed. Weeds growing in the absence of crop competition generally require higher rates to obtain satisfactory control or suppression.

Coverage: Apply in 3 or more gallons per acre by air or in 8 or more gallons per acre by ground equipment. Do not exceed 40 gallons per acre total spray volume. Use sufficient spray volume to provide thorough coverage and a uniform spray pattern. Inadequate spray volume and coverage may result in decreased weed control. As canopy and weed density increase, spray volume should be increased to obtain equivalent weed control. Use larger nozzle tips or decrease spraying speed to

increase spray volume rather than increasing boom pressure. Refer to manufacturer's instructions for information on relationships between spray volume, and nozzle size and arrangement.

Adjuvants: Generally, the product does not require the use of an adjuvant to achieve satisfactory weed control when applied alone. However, the addition of an adjuvant may optimize herbicidal activity when applications are made (a) at lower carrier volumes, (b) under conditions of cool temperature, low relative humidity or drought, or (c) to small, heavily pubescent kochia. Adjuvants may be used when required by a tank mix partner. Follow all applicable directions on the label for the tank mix partner.

Spot Treatments: To prevent misapplication, spot treatments should be applied with a calibrated boom or with hand sprayers according to directions provided.

Hand-Held Sprayers: Hand-held or backpack sprayers may be used for spot applications of Starane Ultra if care is taken to apply the spray uniformly and at a rate equivalent to a broadcast application. Application rates in the table are based on an area of 1,000 sq ft. The amount of Starane Ultra (fl oz or ml) in the table should be mixed with 1 gallon or more of water and applied to an area of 1,000 sq ft. To calculate the amount of product required for larger areas, multiply the table value (fl oz or ml) by the area to be treated in "thousands" of square feet, e.g., if the area to be treated is 3,500 sq ft, multiply the table value by 3.5 (calc. $3,500 \div 1,000 = 3.5$). An area of 1000 sq ft is approximately 10.5 X 10.5 yards (strides) in size. (see label for the table)

Limitations, Restrictions, and Exceptions

SORGHUM (GRAIN)

General: Apply Starane Ultra herbicide as a broadcast treatment using ground equipment or by air. See product label for Starane Ultra for detailed information on application timing, effect of temperature on herbicidal activity, application rates, spray coverage and instructions for spot application. Starane Ultra may be applied in tank mix combination with labeled rates of other herbicides such as atrazine. Read and follow all label directions, including applicable use directions, application timing, precautions and limitations on each product label.

Application Timing

- For both pre emergence and post emergence applications, apply when weeds are actively growing, but before weeds are 8 inches tall and before wild buckwheat is vining. Only weeds that have emerged at the time of application will be controlled.
- To control heavy weed populations, a pre emergence application may be followed by a post emergent application. Do not exceed two applications per season.

Restrictions:

- Pre harvest Interval: Do not allow livestock to graze or harvest forage within 40 days of application. Do not apply within 70 days of harvesting grain or stover.

WEEDS CONTROLLED AND SUPPRESSED

See “Weeds Controlled or Suppressed” section in product label for a complete listing.

Kochia: Includes herbicide tolerant or resistant biotypes.

Suppression is expressed as a reduction in weed competition (reduction population or vigor) as compared to untreated areas. The degree of weed control and duration of effect may vary with weed size, density, application rate, coverage, and growing conditions before, during and after treatment.

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Rates

[field_rates 0](#)

-

Restricted Entry Interval

24 hours

Timings

[Postemergence \(Crop\)](#)

Preemergence (Crop)