

# **WHEAT (INCLUDING DURUM), BARLEY, OATS - VOLUNTEER POTATOES, MAYWEED CHAMOMILE (DOG FENNEL), PINEAPPLEWEED**

General Information

## **PRODUCT INFORMATION**

Far Reach is for use as a selective herbicide to control annual and perennial broadleaf weeds in barley and oats not under-seeded with a legume, field corn, wheat, grasses grown for seed, Conservation Reserve Program (CRP) acreage, and non-cropland (including fencerows; farm building sites; and equipment pathways).

Precautions:

- Avoid application where proximity of susceptible crops or other desirable plants is likely to result in exposure to spray or spray drift.

Restrictions:

- Do not make application of Far Reach directly to, or allow spray drift to come in contact with broadleaf crops or other susceptible broadleaf plants, including, but not limited to, alfalfa, canola, beans, cotton, flowers, grapes, lettuce, lentils, mustard, peas, potatoes, radishes, soybeans, sugar beets, sunflowers, tobacco, tomatoes, vegetables, or other desirable broadleaf crops or ornamental plants or soil where sensitive crops will be planted in the same season.
- Do not contaminate irrigation ditches or water that will be used for drinking or other domestic purposes.
- Chemigation: Do not make application of this product through any type of irrigation system.
- Do not make application to CRP or non-cropland areas that contain desirable forbs (broadleaf forage plants), particularly legumes, unless injury can be tolerated; as many forbs are susceptible to Far Reach.
- Do not transfer livestock that have been feeding on an area that has been treated with this product (or have been fed treated hay) to an area that has sensitive broadleaf crops without first allowing 7 days of feeding on untreated forage or hay. If livestock are transferred to an area with desirable broadleaf crops less than 7 days after feeding from treated areas, urine and manure may contain enough

clopyralid that will cause injury to sensitive broadleaf plants.

- Do not use on areas that have been newly seeded until grass is well established with vigorous growth, secondary roots, and tillers.

## Resistance Management

Far Reach contains chemicals classified in the Group 4 (synthetic auxins) herbicides. Some naturally occurring weed populations have been identified as resistant to these Group 4 herbicides. Selection of resistant biotypes, through repeated use of these herbicides in the same field, may result in control failures. A resistant biotype may be present if poor performance cannot be attributed to adverse weather conditions or improper application methods. If resistance is suspected, contact your local Sharda USA LLC representative for assistance.

There is potential risk of resistance development in some weeds against the herbicides that have been used repeatedly. While the development of resistance is well understood, it is not easily predicted. Therefore, herbicides must be used in conjunction with resistance management strategies in your area. Consult your local or State agricultural advisors for details. If weed resistance develops in your area, this product used alone may not continue to provide sufficient levels of weed control. If the reduced levels of control cannot be attributed to improper application timing, unfavorable weather conditions or abnormally high weed pressure, a resistant strain may have developed.

To reduce the potential for weed resistance, use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the specified labelled rates and in accordance with the use directions. Do not use less than specified label rates alone or in tank mixtures. Do not use reduced rates of the tank mix partner. For optimum performance, scout fields carefully and begin applications when weeds are smaller rather than larger. If resistance is suspected, contact the local or State agricultural advisors.

## Field Bioassay Instructions

In fields previously treated with this product, plant short test rows of the intended rotational crop across the original direction of application in a manner to sample variability in field conditions such as soil texture, soil organic matter, soil pH, or drainage. The field bioassay can be initiated at any time between harvest of the treated crop and the planting of the intended rotational crop. Observe the test crop

for herbicidal activity, such as poor stand (effect on seed germination) chlorosis (yellowing), and necrosis (dead leaves or shoots), or stunting (reduced growth). If herbicidal symptoms do not occur, the test crop can be grown. If there is apparent herbicidal activity, do not plant the field to the test rotational crop; plant only a labeled crop or crop listed in the table for which the rotational interval has clearly been met.

### Avoiding Injury to Non-Target Plants

This product can affect susceptible broadleaf plants directly through foliage and indirectly by root uptake from treated soil. Do not apply Far Reach directly to, or allow spray drift to come in contact with broadleaf crops, including, but not limited to alfalfa, canola, beans, cotton, flowers, grapes, lettuce, lentils, mustard, peas, potatoes, radishes, soybeans, sugar beets, sunflowers, tobacco, tomatoes, vegetables, or other desirable broadleaf crops or ornamental plants or soil where sensitive crops will be planted the same season (refer to the CROP ROTATION INTERVALS section).

Residues in Plants or Manure: Do not use plant residues, including hay or straw from treated areas, or manure or bedding straw from animals that have grazed or consumed forage from treated areas, for composting or mulching, where susceptible plants may be grown the following season. Do not spread manure from animals that have grazed or consumed forage or hay from treated areas on land used for growing susceptible broadleaf crops. To promote herbicidal decomposition, plant residues should be evenly incorporated or burned. Breakdown of clopyralid in crop residues or manure is more rapid under warm, moist soil conditions and may be enhanced by supplemental irrigation.

Avoid Movement of Treated Soil: Avoid conditions under which soil from treated areas may be moved or blown to areas containing susceptible plants. Wind-blown dust containing clopyralid may produce visible symptoms, such as epinasty (downward curving or twisting of leaf petioles or stems) when deposited on susceptible plants; however, serious injury is unlikely. To minimize potential movement of clopyralid on windblown dust, avoid treatment of powdery dry or light sandy soils until soil has been settled by rainfall or irrigation or irrigate shortly after application.

## Precautions for Avoiding Spray Drift

Spray drift, even very small quantities of the spray that may not be visible, may severely injure susceptible crops whether dormant or actively growing. When making application of Far Reach, use low-pressure equipment capable of producing sprays of uniform droplet size with a minimum of fine spray droplets. Under adverse weather conditions, fine spray droplets that do not settle rapidly onto target vegetation may be carried a far distance from the treatment area. A drift control or spray thickening agent can be used with this product to improve spray deposition and minimize the potential for spray drift. Follow all use directions and precautions on the product label if this type of product is used.

## Ground Applications

To minimize spray drift, make application of Far Reach in a spray volume of 10 or more gallons per acre using application equipment designed to produce large-droplet, low pressure sprays. See the spray equipment manufacturer's instructions for detailed information on nozzle types, arrangement, spacing and operating height, and pressure.

## Aerial Application

Make application of Far Reach in water using a minimum spray volume of 3 or more gallons per acre. Avoid making applications under conditions where uniform coverage cannot be obtained or where there is a potential for spray drift. Drift potential is lowest when wind speeds are between 2 to 10 mph. However, many factors, including droplet size and equipment type, impact drift potential at any given speed. Treatment should be avoided below 2 mph due to variable wind direction and high potential for temperature inversion. Spray drift from aerial application can be minimized by using a coarse spray at spray boom pressure no greater than 30 PSI; by using straight-stream nozzles directed straight back; and by using a spray boom no longer than  $\frac{3}{4}$  the rotor or wing span of the aircraft. Spray pattern and droplet size distribution may be evaluated by making spray application that include a water-soluble dye marker or appropriate drift control agent over a paper tape.

## Spray Drift Management

Avoiding spray drift at the application site is the responsibility of the applicator the grower. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions. The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed  $\frac{3}{4}$  the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
3. Where states have more stringent regulations, they must be observed.

## APPLICATION INFORMATION

### Application Timing

Make application to weeds that are actively growing. Environmental stress growing conditions such as drought or temperature extremes (temperatures less than 45°F or above 85°F) before, at, or after treatment may reduce weed control and increase the potential for crop injury during all stages of growth. The product is only effective on weeds that have emerged at the time of application. If leaves are wet at the time of treatment, control may be reduced. Far Reach is rainfast within 6 hours following treatment.

### Effect of Temperature on Herbicidal Activity

Plant growth and herbicidal performance of Far Reach are influenced by climatic conditions. The temperature range for best product performance is 55°F to 75°F. Reduced product performance may result when temperatures are below 45°F or above 85°F. Frost 3 days before or 3 days after treatment may reduce weed control and crop tolerance. Optimum product performance requires that the plant is actively growing.

### Application Use Rates

Typically, application use rates at the lower end of the label-listed rate range will be sufficient to control young susceptible weed species. For species that are less

sensitive, perennials, or under conditions where control may be more difficult (environmental stress conditions, such as drought, extreme temperatures, dense weed populations and/or bigger weeds), apply the higher use rates within the rate range. Weeds in environments where competition is low (ex. in fallow land or areas where crops are not present) will typically require higher use rates for sufficient control or suppression.

### Spray Coverage

Use enough spray volume to provide thorough coverage and uniform coverage. Do not make a broadcast application in less than 3 gallons of total spray volume per acre. For optimum results and to minimize spray drift, make application in a spray volume of 10 gallons or more per acre. Increase spray volume as vegetative canopy and weed density increase to ensure sufficient coverage and weed control. Use only nozzle types and spray equipment designated for herbicide application. Consult the precautions under “Avoiding Injury to Non-Target Plants” to understand how to reduce or avoid drift.

### Adjuvants

Typically, this product does not require the addition of an adjuvant to obtain satisfactory weed control. However, adding an adjuvant may improve herbicidal activity when applications are made at lower use rates; lower carrier volumes; under conditions of environmental stress (ex. cool temperatures, low relative humidity or drought); or to small, succulent kochia plants.

### Sprayable Liquid Fertilizer Solutions and Far Reach

Far Reach may be applied with most non-pressurized liquid fertilizer solutions. A compatibility test must be performed prior to full-scale mixture and application with: any liquid fertilizer mixture; for each new batch of fertilizer or pesticide; when the source of carrier is changed; or any component or concentration of the tank mixture is changed (See the Compatibility Test for Tank Mixtures section). Using a compatibility aid such as Unite or Compex may help achieve and maintain a uniform spray solution during mixing and application. Liquid fertilizer should not be greater than 50% of the total spray volume for best results. Premix Far Reach with water and add to the liquid fertilizer/water mixture while agitating contents of the spray tank. Apply the mixture the same day it is prepared and maintain constant agitation. Advisory: When using foliar-applied liquid fertilizers as a carrier for Far

Reach, yellowing or leaf burn of crop foliage may occur.

## Spot Treatments

Spot treatments applications should only be made with a calibrated boom or with hand sprayers according to directions provided below to prevent misapplication.

## Hand-Held Sprayers

Spot applications may be made using hand-held sprayers. Care should be taken to make a uniform spray application at a rate that is equivalent to a broadcast application (refer to the table below). Application use rates are based on an area of 1,000 sq. ft. Mix the listed amount of Far Reach corresponding to the desired broadcast rate in 1 or more gallons of spray volume. To calculate the required amount of Far Reach for larger areas, multiply the use rate by the area to be treated in “thousands” of square feet. Example: if the area to be treated is 3,500 sq. ft., multiply the use rate listed in the table by 3.5 (calc.  $3,500 \div 1,000 = 3.5$ ). An area of 1,000 sq. ft. is approximately 10.5 x 10.5 yards.

## Weed Control

Perennial Weed Control: Application of Far Reach will provide season long protection by controlling the initial top growth and inhibiting the regrowth throughout the season. At the higher labeled application use rates, Far Reach may reduce shoot regrowth the season after application. Plant response may not be consistent due to plant variability in regrowth from perennial root systems.

Kochia Biotypes: Many biotypes of kochia may be present within a single field. Kochia biotypes can vary in their susceptibility to Far Reach, but all will be either suppressed or controlled by the 1 pt. per acre labeled use rate. Treatments of Far Reach applied at rates below 1 pt. per acre may result in plants that develop resistance.

There are widespread populations of dicamba-tolerant kochia that have been identified in certain small grain and corn production regions in Montana (such as Chouteau, Fergus, Liberty, Toole, and Treasure counties). For optimal control and resistance management of dicamba-tolerant kochia in these counties, make application of Far Reach at a minimum rate of 1.33 pts. per acre. In addition, use of Far Reach should be rotated with products that do not contain dicamba to minimize

selection pressure. Use of these practices will preserve the utility of Far Reach for control of dicamba tolerant kochia biotypes.

## CROP ROTATION INTERVALS

Residues of Far Reach in treated plant tissues may affect succeeding susceptible crops, including the treated crop or weeds, which have not completely decayed.

For All States Except Idaho, Nevada, Oregon, Utah, and Washington

Barley; Grasses; Field Corn; Oats; Sweet Corn; Wheat - Immediately

Canola (Rapeseed); Cole Crops (Brassica spp.); Flax; Garden Beet; Popcorn;  
Spinach; Sugarbeet; Turnip - 4 Months

Alfalfa; Asparagus; Dry Beans; Field Peas<sup>2</sup>; Grain Sorghum; Mint; Onions; Safflower;  
Soybeans; Strawberries; Sunflower - 10.5 Months

Broadleaf Crops Grown For Seed (Excluding Brassica spp.); Chick Peas; Lentils;  
Potatoes (Including Potatoes Grown For Seed) - 18 Months

The above crop rotation intervals are based on average annual precipitation, regardless of irrigation practices. Observance of listed crop rotation intervals should result in adequate safety to rotational crops. However, Far Reach is dissipated in the soil by microbial activity and the rate of microbial activity is dependent on several interrelating factors including soil moisture, temperature and organic matter. Therefore, accurate prediction of rotational crop safety is not possible. In areas of low organic matter (<2.0%) and less than 15 inches average annual precipitation, potential for crop injury may be reduced by burning or removal of plant residues, supplemental fall irrigation and deep moldboard plowing prior to planting the sensitive crop.

A field bioassay is recommended prior to planting any broadleaf crops that are not listed. Do not rotate to unlisted crops prior to 10.5 months following application.

For rotation to field peas in 10.5 months, precipitation must be greater than 7.0 inches during the 10.5 months following application of Far Reach and greater than 5.5 inches during the June 1st through August 31st time period following application. Otherwise, rotation to field peas is recommended 18 months following application.

For Idaho, Nevada, Oregon, Utah, and Washington Only

Barley; Grasses; Field Corn; Oats; Sweet Corn; Wheat - Immediately

Canola (Rapeseed); Cole Crops (Includes Brassica spp. Grown For Seed); Flax; Garden Beet; Popcorn; Spinach; Sugarbeet; Turnip - 4 Months

Alfalfa; Asparagus; Dry Beans; Grain Sorghum; Mint; Onions; Soybeans; Strawberries; Sunflower - 12 Months

Broadleaf Crops Grown For Seed (Excluding Brassica spp.); Carrots; Celery; Chick Peas; Cotton; Field Peas; Lentils; Lettuce; Melons; Potatoes (Including Potatoes Grown For Seed); Safflower; Tomatoes - 18 Months

The above crop rotation intervals are based on average annual precipitation, regardless of irrigation practices. Observance of listed crop rotation intervals should result in adequate safety to rotational crops. However, Far Reach is dissipated in the soil by microbial activity and the rate of microbial activity is dependent on several interrelating factors including soil moisture, temperature and organic matter. Therefore, accurate prediction of rotational crop safety is not possible. In areas of low organic matter (<2.0%) and less than 15 inches average annual precipitation, potential for crop injury may be reduced by burning or removal of plant residues, supplemental fall irrigation and deep moldboard plowing prior to planting the sensitive crop.

A field bioassay is recommended prior to planting any broadleaf crops that are not listed. Do not rotate to unlisted crops prior to 12 months following application.

Limitations, Restrictions, and Exceptions

WHEAT (INCLUDING DURUM), BARLEY, OATS

For control of listed broadleaf weeds, make application as a broadcast post-emergence treatment to actively growing wheat, barley or oats, from the 3-leaf crop growth stage up to and including flag leaf emergence (Zadoks scale 39). Make application when weeds are actively growing, but before weeds grow to 4 inches tall or begin vining. For season-long control of perennial weeds such as Canada thistle, apply when the majority of the basal leaves have emerged from the soil up to bud stage. For suppression of volunteer potatoes, apply before potato plants grow to 6 inches tall. Weeds will only be controlled if they have emerged at the time of application. Environmental stress 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.

**Spot Applications:** To prevent over-application, spot treatments must be applied at rates and spray volumes equivalent to broadcast application. See instructions for Spot Treatments in the APPLICATION DIRECTIONS section.

#### Tank Mixtures for Wheat (including Durum), Barley, Oats

Far Reach can be applied in tank mix combination with labeled rates of other products registered for post-emergence application in wheat, barley, and oats. Refer to the Tank Mixing Precautions located under the MIXING INSTRUCTIONS. When tank mixing, do not exceed label-listed application rates. 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.

#### Restrictions:

- Do not apply more than 1.33 pts. per acre per growing season.
- Pre-Harvest Interval (PHI): Do not apply closer than 14 days before cutting of hay or 40 days before harvesting of grain and straw.
- Do not use if cereal crop is under-seeded with a legume.
- Do not allow livestock to graze treated areas or harvest treated forage within 7 days of application.

#### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Spot treatment](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Spot treatment](#)

Pre-Harvest Interval

Hay - 14 days

Grain and Straw - 40 days

Restricted Entry Interval

12 hours

Timings

[Postemergence \(Crop\)](#)

[Postemergence \(Crop\)](#)