

# **CEREAL GRAINS - WINTER WHEAT, BARLEY AND RYE - ONSET OF TILLERING STAGE**

## General Information

### GENERAL INFORMATION

Best results will be obtained when FIVE STAR is applied during warm weather to young weeds that are actively growing under good moisture conditions. Lowest recommended rates will generally be satisfactory on susceptible annual weed seedlings. For listed perennial or biennial weeds and under certain conditions such as drought or cool temperatures where control is difficult, the higher recommended rates may be required. In general, only weeds emerged at the time of application will be affected.

When FIVE STAR is used for weed control in actively growing crops, the growth stage of the crop must be considered. Proper timing is required to obtain maximum crop tolerance and to avoid crop injury. Weed control and crop tolerance of this product may be affected by local conditions, crop varieties, cultural practices, application methods and other factors. Users should consult Agricultural Extension Service, agricultural experiment station, university weed specialists, seed companies or other qualified crop advisors for information pertaining to local use. In general, weed control and crop tolerance will be best when plants have neither too little nor excessive moisture before or after application, and the crop is not under other stresses.

Certain states have regulations which may affect the use of this product. Contact your state pesticide authority for additional information.

Soil residue of this product may temporarily inhibit seed germination and plant growth.

### MIXING INSTRUCTIONS

FIVE STAR is an emulsifiable concentrate formulation intended for dilution in water for many applications. For certain specified applications, liquid fertilizer or oil may replace part or all of the water as diluent.

If dry flowable (DF), wettable powder (WP) or flowable (F) tank mix products are to be used, these should generally be added to the spray tank before FIVE STAR. Refer to mixing directions on tank mix product labels.

For best results, thoroughly clean sprayer immediately after use by flushing system with water and heavy duty detergent.

**Water Spray:** To prepare a water spray mixture, fill clean spray tank about 1/2 to 2/3 full with clean water. Add required amount of FIVE STAR with agitation turned on. Continue agitation while adding balance of water and during spray operations.

**Note:** This product forms an emulsion in water and can separate upon prolonged standing. If spray mixture is allowed to stand, agitate it before use to assure uniformity.

**Liquid Fertilizer Spray:** Due to increased risk of crop foliage burn with fertilizer, use only as recommended on this label. Use fertilizer rate recommended locally. Fill clean spray tank about 1/2 to 2/3 full with liquid nitrogen fertilizer (UAN or urea) solution. Add required amount of FIVE STAR with vigorous agitation running. Continue agitation while adding balance of liquid fertilizer during spray operations. Application should be made immediately. Overnight storage of mixture is not recommended. Application during very cold (near freezing) temperatures is not advisable because of the likelihood of crop injury. FIVE STAR is formulated to be compatible with most liquid nitrogen solutions; however, due to variability in fertilizers, users may wish to perform a jar compatibility test before large scale mixing.

Oil Spray: Use only as recommended on this label. Fill clean spray tank about 1/2 to 2/3 full with diesel oil, fuel oil, stove oil or other suitable oil. Add required amount of FIVE STAR with agitation turned on. Continue agitation while adding balance of oil. The resulting mixture is a solution and will generally remain uniform without agitation once mixed. However, agitation is suggested if available. Do not allow any water to get into spray mixture to avoid formation of an invert emulsion (mayonnaise consistency).

Water Spray with Oil: Use only as recommended on this label. Where a combination of water and oil diluent is recommended, the use of emulsifiable crop oil or crop oil concentrate is suggested since mild agitation will be sufficient. Mix in the sequence of water, FIVE STAR, and oil.

If diesel or other nonemulsified oils listed above under "Oil Spray" are desired for use with water, add no more than 1 quart of such oil per 1 gallon of water and agitate vigorously until tank is emptied. If possible, premix nonemulsified oil with FIVE STAR and add this premix to a mostly filled spray tank with agitation on. Otherwise, mix in the sequence of water, FIVE STAR, and oil with agitation on. Follow these procedures carefully to avoid formation of an invert emulsion (mayonnaise consistency).

## APPLICATION PROCEDURES

For all types of applications, use calibrated spray equipment to assure applying the recommended amount of FIVE STAR spray mixture per acre. Use sufficient spray volume within the ranges specified to obtain good coverage of weeds. FIVE STAR is absorbed sufficiently within 1 hour after application to provide adequate weed control.

Ground Broadcast Spray: Unless otherwise specified in the appropriate crop or noncrop directions, apply FIVE STAR in 5 or more gallons of spray solution per acre. Use enough spray volume to provide uniform coverage of weeds, taking into account the amount of vegetation present and the type of application equipment used. As crop canopy and weed density increase, a higher spray volume may be needed for equivalent coverage and weed control. Typical crop applications utilize 10 to 50 gallons of spray per acre while certain high volume noncrop applications may utilize more than 100 gallons per acre. Use coarse sprays to minimize potential spray drift. Do not apply with hollow cone nozzles or other nozzles that produce fine

spray droplets. Boom sprayers with flat fan or low volume flood nozzles are generally most suitable for ground broadcast applications.

Ground Band Spray: Determine band equivalents to broadcast rates and volumes by the following formulas given in the label.

## CHEMIGATION

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

Aerial Broadcast Spray: Unless otherwise specified in the appropriate crop or noncrop directions, apply FIVE STAR in 1 to 10 gallons of spray solution per acre. For best coverage and weed control, as well as reduced potential for spray drift, a minimum of 3 gallons per acre is suggested. Avoid using nozzles or nozzle configurations that generate fine droplets. One configuration usually found to be suitable includes straight stream nozzles (such as disk with no swirl plate) directed straight back along the windstream. Mechanical flagging systems such as Automatic Flagman are suggested to obtain more uniform application.

With fixed-wing or helicopter application, an exactly even swath deposition may not be achieved, and consequently crop injury or pesticide nonperformance may result wholly or in part. Do not apply by air during periods of thermal inversion. Avoid application if potential for drift is excessive and/or susceptible crops are growing in the vicinity.

## WEED LISTS

FIVE STAR will control or partially control the following weeds in addition to many other susceptible noxious plants. Locally resistant biotypes of listed weeds may be suppressed, but tank mixing an herbicide with a different mode and site of action is advisable for such biotypes. Certain weeds, especially deep-rooted perennials and woody varieties, may require repeat applications of FIVE STAR for control or suppression. Regrowth of perennials may occur.

## PLANTING IN TREATED AREAS

Labeled Crops: Within 29 days following an application of this product, plant only those crops named as use sites on this or other registered 2,4-D labels. Follow more specific limitations, if any, provided in the directions for individual crops. Labeled crops may be at risk for crop injury or loss when planted soon after application,

especially in the first 14 days. Degradation factors described below should be considered in weighing this risk.

**Other Crops:** All other crops may be planted 30 or more days following an application without concern for illegal residues in the planted crop. However, under certain conditions, there may be risk of injury to susceptible crops. Degradation factors described below should be considered in weighing this risk. Under normal conditions, any crop may be planted without risk of injury if at least 90 days of soil temperatures above freezing have elapsed since application.

**Degradation Factors:** When planting into treated areas, the risk of crop injury is less if lower rates of product were applied and conditions following application have included warm, moist soil conditions that favor rapid degradation of 2,4-D. Risk is greater if higher rates of product were applied and soil temperatures have been cold and/or soils have been excessively wet or dry in the days following application. Consult your local Agricultural Extension Service for information about susceptible crops and typical soil conditions in your area.

## APPLICATIONS

Read all preceding general sections of label and disclaimer before use.

Unless otherwise specified, applications may be made by ground or air equipment.

Ground applications may provide more thorough coverage and better weed control.

For selective postemergent weed control in crops, do not add oil, surfactant, fertilizer or other additives unless specifically recommended on this label.

## Limitations, Restrictions, and Exceptions

CEREAL GRAINS (WHEAT, OATS, BARLEY, RYE)  
(NOT UNDERSEEDED WITH A LEGUME)

### Livestock Feeding Restrictions:

Do not permit dairy animals or meat animals being finished for slaughter to forage or graze treated grain fields within 2 weeks after treatment. Do not feed treated straw to livestock if an emergency and/or preharvest treatment is applied.

## Liquid Nitrogen Fertilizers:

At full tiller, FIVE STAR may be combined with liquid nitrogen fertilizers suitable for foliar applications to small grains. Refer to "Mixing Instructions" section of label for further information. Fertilizers can increase foliage contact burn of herbicides.

Reducing the fertilizer rate and concentration will reduce the hazard of foliage burn.

## WINTER WHEAT, BARLEY AND RYE

Onset of Tillering Stage: Grains are generally tolerant of these treatments, but risk of crop injury is greater than at full tillering stage. Do not make application if the risk of injury is unacceptable.

FIVE STAR: Apply 6.4 to 12.8 fluid ounces of FIVE STAR per acre in the spring when grain has 1 or more tillers as well as 3 or more leaves. Do not apply from boot to dough stage.

FIVE STAR contains 0.039 pounds a.e. of 2,4-D per fluid ounce. When tank mixing with products that contain 2,4-D, do not exceed a combined total of 1.75 pounds of a.e. per acre per year.

## WEEDS PARTIALLY CONTROLLED

Alfalfa; Beggarticks; Bindweeds (hedge, European); Buckbrush; Bull thistle; Canada thistle; Chamise; Clover, red; Corn gromwell; Coyotebrush; Dandelion; Docks; Dogbanes; Goldenrod; Ground ivy; Hawkweed; Henbit; Hoary cress; Knotweed; Many-flowered aster; Manzanita; Musk thistle; Nettles; Peppergrass; Prickly lettuce; Rabbitbrush; Russian thistle; Sage, coastal; Sagebrush (big, sand); Salsify (western, common); Sand shinnery oak; Smartweed, annual; Smartweed, Pennsylvania; Tansy ragwort; Vervains; Vetch, hairy; Western ironweed; Wild carrot; Wild garlic; Wild onion: Higher rates and/or repeated applications may be needed.

Pigweed: Weeds partially controlled and for which locally resistant biotypes may occur.

Bindweed (field) Russian knapweed: Weeds suppressed when another labeled herbicide is also applied.

## Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Pre-Harvest Interval

14 days

Rates

[field rates 0](#)

- 

Restricted Entry Interval

12 hours

Timings

[When grain has 1 or more tillers as well as 3 or more leaves.](#)