

# **CEREAL GRAINS - PREHARVEST APPLICATION**

## General Information

## Product Information

2,4-D Ester 4 herbicide is intended for selective control of many broadleaf weeds in certain crops, including, cereal grains (wheat, barley, millet, oats and rye), corn (field corn, popcorn and sweet corn), fallow land and crop stubble, sorghum (grain and forage sorghum), and soybeans (preplant burndown application only), forests, rangeland and established grass pastures including Conservation Reserve Program (CRP) acres, non-cropland, grasses grown for seed or sod, and ornamental turf.

Apply 2,4-D Ester 4 as a water or oil-water spray during warm weather when weeds or woody plants are actively growing. Application under drought conditions will often give poor results. Use low spray pressure to minimize drift. Generally, the lower dosages specified on the label will be satisfactory for young, succulent growth of susceptible weed species. For less susceptible species and under conditions where control is more difficult, use higher specified rates. Deep-rooted perennial weeds such as Canada thistle and field bindweed and many woody plants usually require repeated applications for satisfactory control. Consult your State Agricultural Experiment stations or Extension Service Weed Specialists for recommendations from the label that best fit local conditions.

## Product Use Precautions and Restrictions

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

Excessive amounts of 2,4-D in the soil may temporarily inhibit seed germination and plant growth.

## Avoiding Injury to Non-target Plants

Spray drift produced during application is the responsibility of the applicator and care should be taken to minimize off-target movement of spray during application. A drift control agent suitable for agricultural use may be used with this product to aid in reducing spray drift. If used, follow all use recommendations and precautions on the product label.

Do not apply where drift may be a problem due to proximity to susceptible crops or other desirable broadleaf plants. Do not apply 2,4-D Ester 4 directly to, or otherwise permit contact with cotton, flowers, fruit trees, grapes, ornamentals, vegetables, or other desirable plants that are susceptible to 2,4-D herbicides. Do not permit spray mist containing 2,4-D to contact susceptible plants since even very small quantities of the spray, which may not be visible, can cause severe injury during either active growth and dormant periods. Do not use in greenhouses.

**Ground Equipment:** With ground equipment, spray drift can be lessened by keeping the spray boom as low as possible; by applying 10 gallons or more of spray per acre; by using no more than 20 pounds spraying pressure and large droplet producing nozzle tips; by spraying when wind velocity is low; and by stopping all spraying when wind exceeds 10 miles per hour. Do not apply with hollow cone-type insecticide or other nozzles that produce a fine-droplet spray.

**Avoid Movement of Treated:** Do not apply under conditions that favor movement of treated soil to areas containing susceptible plants. Wind-blown dust containing 2,4-D may produce visible symptoms when deposited on susceptible plants, however, serious plant injury is unlikely. To minimize potential movement of 2,4-D on wind-blown dust, avoid treatment of powdery dry or light sandy soils until soil is settled by rainfall or irrigation or irrigate soon after application.

Do not store or handle other agricultural chemicals with the same containers used for 2,4-D Ester 4. Do not apply other agricultural chemicals or pesticides with equipment used to apply 2,4-D Ester 4 unless equipment has been thoroughly cleaned to remove all traces of 2,4-D.

### Application Instructions

**Spray Volume:** Apply with calibrated air or ground equipment using sufficient spray volume to provide adequate coverage of target weeds or as otherwise directed in specific use directions. For broadcast application, apply the specified rate of this

product in a spray volume of 2 or more gallons per acre by air and 10 or more gallons per acre for ground equipment. Use low-pressure sprays to minimize drift. Where states have regulations, that specify minimum spray volumes, they should be observed. In general, spray volume should be increased as crop canopy, height and weed density increase in order to obtain adequate spray coverage. Do not apply less than 2 gallons total spray volume per acre.

**Application Rates:** Generally, lower rates in specified rate ranges will be satisfactory for more sensitive weeds species, when weeds are small, and when environmental conditions are favorable for rapid growth. Use higher rates in the specified rate range for less sensitive species and under less favorable growing conditions. For crop uses, do not mix with oil or other adjuvants unless specifically recommended on the label. Deep-rooted perennial weeds such as Canada thistle and field bindweed and many woody plants usually require repeated applications for effective control.

### Spot Treatments

To prevent misapplication, spot treatments should be applied with a calibrated boom or with hand sprayers using a fixed spray volume per 1,000 sq ft as indicated below.

**Hand-Held Sprayers:** Hand-held sprayers may be used for spot applications of 2,4-D Ester 4 in labeled crops. Care should be taken to apply the spray uniformly and at a rate equivalent to a broadcast application. Application rates in the table are based on a treatment area of 1,000 sq ft. Mix the amount of 2,4-D Ester 4 (fl oz or ml) corresponding to the desired broadcast rate in one (1) or more gallons of spray. To calculate the amount of 2,4-D Ester 4 required for larger areas, multiply the table value (fl oz or ml) by the number of thousands of sq ft of area to be treated. An area of 1000 sq ft is approximately 10.5 X 10.5 yards (strides) in size. To calculate the amount of 2,4-D Ester 4 required for a broadcast rate higher than those listed, use a multiple of the table value, for example, if a spot treatment requires the equivalent of an 8 pt per acre, use 2X the amount per gallon of spray required for the 4 pt/acre rate.

**Band Application:** 2,4-D Ester 4 may be applied as a band treatment. Use the formulas in the label to determine the appropriate rate and volume per treated acre.

### Limitations, Restrictions, and Exceptions

## Cereal Grains

(Not Underseeded with Legumes)

### Specific Use Directions

Apply using air or ground equipment to control weeds that could interfere with harvest, or to suppress perennial weeds. Apply when grain is in dough stage. Do not apply from early boot through the milk stage of growth.

### Restrictions:

- Grazing and Haying Restrictions: Do not permit dairy animals or meat animals being finished for slaughter to forage or graze treated grain fields within 14 days after treatment. Do not harvest for hay or harvest grain within 14 days after application.

### Weeds Controlled

Beggarticks; broomweed, common; buttercup, smallflowered; lettuce, prickly; mallow, little; mallow, Venice; pepperweeds (*Lepidium* spp.); pigweeds (*Amaranthus* spp.); salsify, common; salsify, western; smartweed (annual species); thistle, musk; thistle, Russian (tumbleweed); Alfalfa; artichoke, Jerusalem; aster, many-flower; Austrian fieldcress; bindweed (hedge, field and European); bullnettle; carrot, wild; clover, red; cress, hoary; dandelion; docks; dogbanes; garlic, wild; hawkweed, orange; ivy, ground; nettles (including stinging); onion, wild; ragwort, tansy; thistle, Canada; vervains: These weeds are only partially controlled and may require repeat applications and/or use of higher specified rates of this product even under ideal conditions of application.

Bittercress, smallflowered; buttercup, smallflowered; cinquefoil, common; cinquefoil, rough; copperleaf, Virginia; geranium, Carolina; horseweed (maretail); knotweed; lettuce, prickly; mousetail; pepperweeds (*Lepidium* spp.); purslane, common; smartweed (annual species); Alfalfa; bindweed (hedge, field and European); bullnettle; clover, red; evening primrose, cutleaf; ironweed, western; thistle, Canada: This product may not be used to control this weed species in the state of California.

### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Rates

[field rates 0](#)

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Restricted Entry Interval

12 hours

Timings

[Preharvest](#)

[When grain is in dough stage.](#)