

LIMA BEANS (SUCCULENT) - WEEDS CONTROLLED

General Information

Directions For Use

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This label must be in the possession of the user at the time of pesticide application.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Ensure spray drift to nontarget species does not occur.

DO NOT apply Raptor herbicide in any manner not specifically described in this label.

DO NOT apply this product through any type of irrigation system.

When applied by either ground or air, Raptor spray drift or other indirect contact may injure sensitive crops, including non-imidazolinone-tolerant canola, lentil, rice, sunflower, or wheat; leafy vegetables; and sugar beet.

Spray equipment used for Raptor application must be drained and thoroughly cleaned with water before being used to apply other products.

Observe all cautions and limitations on this label and on the labels of products used in combination with Raptor. DO NOT use Raptor other than in accordance with the instructions set forth on this label. Keep containers closed to avoid spills and contamination.

Product Information

Raptor herbicide, a soluble liquid, is a postemergence herbicide to control and suppress many broadleaf and grass weeds and sedges, as listed in this label.

The mode of weed-killing activity involves uptake of Raptor by foliage and/or weed

roots and rapid translocation to the growing points. After Raptor application, susceptible weeds may show yellowing, and weed growth will stop. Susceptible weeds stop growing and either die or are not competitive with the crop.

Adequate soil moisture is important for optimum Raptor activity. When adequate soil moisture is present, Raptor will provide residual activity on susceptible germinating weeds. Activity on established weeds will depend on the weed species and the location of its root system in the soil. A timely cultivation after Raptor application may improve weed control.

Occasionally, internode shortening and/or temporary yellowing of crop plants may occur following Raptor application. These effects can be more pronounced if crops are growing in stressful environmental or hot and humid conditions. These effects occur infrequently and are temporary. Normal growth and appearance should resume within 1 to 2 weeks.

DO NOT tank mix organophosphate or carbamate insecticides with Raptor on listed crops unless otherwise specified in writing by BASF. When organophosphate (such as Lorsban insecticide) or carbamate insecticides are tank mixed with Raptor, temporary injury may result to the treated crop. Separate organophosphate and Raptor application by at least 7 days to reduce potential for injury. Use of Raptor 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.

Replanting

If replanting is necessary in a field previously treated with Raptor, the field may be replanted to beans (dry), Clearfield canola, Clearfield corn, Clearfield lentil, Clearfield rice, Clearfield and Clearfield Plus sunflower, Clearfield and Clearfield Plus wheat, edamame, pea (English), peas (dry), lima bean (succulent), snap bean, or soybean. Rework the soil no deeper than 2 inches. DO NOT apply a second treatment of Raptor. DO NOT apply Pursuit herbicide, Pursuit Plus EC herbicide or Raptor if edamame or soybeans are replanted.

Resistance Management

Naturally occurring biotypes¹ of some of the weeds listed on this label may not be

effectively controlled by this and/or other products with the ALS/AHAS enzyme-inhibiting mode of action. Other herbicides with the ALS/AHAS enzyme-inhibiting mode of action include the sulfonylureas (e.g. Finesse herbicide), imidazolinones (e.g. Beyond herbicide), the triazolopyrimidine sulfoanilides (e.g. FirstRate herbicide), the sulfonylaminocarbonyl triazolinones, and the pyrimidyl benzoates (e.g. Staple herbicide). If naturally occurring ALS/AHAS-resistant biotypes are present in a field, Raptor and/or any other ALS/AHAS enzyme-inhibiting mode of action herbicide should be tank mixed or applied sequentially with an appropriate registered herbicide having a different mode of action to ensure control.

1A weed biotype is a naturally occurring plant within a given species that has a slightly different, but distinct, genetic makeup from other plants.

Raptor is very active against many broadleaf and grass weed species. For long-term weed management, use at least two herbicides with different modes of action to reduce the potential for weed resistance. Crop (and herbicide) rotation is effective in managing weed resistance where herbicides of different modes of action are used. Tillage, where practical (such as in fallow production or before planting), is effective in controlling weeds to minimize resistance development. Additionally, a burndown herbicide during fallow or before planting is effective in reducing weed resistance development.

Raptor has no preharvest interval (PHI) for any crop.

Refer to label for Mixing Instructions details.

Spraying Instructions

DO NOT apply when wind conditions may result in drift, when temperature inversion conditions exist, or when spray may be carried to sensitive crops. Sensitive crops include, but are not limited to, leafy vegetables and sugar beet.

Ground Application

Uniformly apply with properly calibrated ground equipment in 10 or more gallons of water per acre. A spray pressure of 20 to 40 PSI is recommended.

To ensure thorough coverage, use a minimum of 20 gallons of water per acre when applying Raptor to minimum-till or no-till crops. Use higher gallonage for fields with dense vegetation or heavy crop residue.

Adjust the boom height to ensure proper coverage of weed foliage (according to the manufacturer's instructions). Use flat-fan nozzle tips or similar appropriate nozzle tips to ensure thorough coverage. Avoid overlaps when spraying.

Ground Application with a Low-volume Sprayer

Raptor herbicide may be applied with a low-volume sprayer. When applying Raptor with a low-volume sprayer, spray weeds before they reach the maximum size listed in this label. Weed control depends on thorough spray coverage. The sprayer must be calibrated to deliver the recommended spray volume and pressure to ensure thorough spray coverage of weeds.

When applying Raptor with a low-volume sprayer, apply a minimum of 10 gallons per acre of spray solution with a nozzle pressure between 40 to 60 PSI for optimum coverage.

Aerial Application

Raptor may be applied by air to all crops listed on this label.

Uniformly apply with properly calibrated equipment in 5 or more gallons of water per acre. The addition of an adjuvant AND a nitrogen fertilizer solution are required for optimum weed control, unless otherwise directed in this label.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-related and weather-related factors determines 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.

1. The distance of the outermost 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 airstream and never be

pointed downward more than 45 degrees.

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

The applicator must be familiar with and take into account the information covered in the aerial drift reduction advisory information that follows.

Application Information

Apply Raptor as a postemergence treatment when weeds are actively growing and before they exceed the maximum specified size (see Crop-specific Information section weeds controlled tables by crop).

Delay application until the majority of weeds are at the specified growth stage. Apply Raptor when weeds are small and actively growing; however, delay application in seedling alfalfa, dry beans, and dry peas until minimum growth stages have occurred. Refer to the crop-specific sections Alfalfa (see Seedling Alfalfa) and Dry Beans and Dry Peas.

An adjuvant (either surfactant OR crop oil concentrate) AND nitrogen fertilizer MUST be added to the spray solution for optimum weed control. See Adjuvants section under Mixing Instructions for specific instructions.

When Raptor is applied postemergence, absorption will occur through both roots and foliage. Susceptible weeds stop growing and either die or are not competitive with the crop. Raptor not only controls many existing broadleaf and grass weeds when applied postemergence, it also provides activity on susceptible weeds that may emerge shortly after application.

Weeds are most easily controlled when actively growing. Under cold temperature conditions (less than 40° F maximum daytime temperature), weed control may be less.

For improved weed control, cultivate (where possible) 7 to 10 days after a postemergence Raptor application. This timely cultivation will enhance residual weed control activation, especially under dry conditions.

Apply Raptor a minimum of 1 hour before rainfall or overhead irrigation.

Rotational Crop Restrictions

Rotational crops may be planted after applying the specified rate of Raptor in Region 1 and Region 2, as indicated on the map.

Region 1 - States and parts of states WEST of US Highway 83 (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming, and western parts of Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas)

Region 2 - States and parts of states EAST of US Highway 83 (includes the eastern parts of Kansas, Nebraska, North Dakota, Oklahoma, South Dakota, and Texas, and the states east of these states)

Refer to table in the label for Rotational Interval (months) following Raptor herbicide Application.

Furrow-irrigated and Flood-irrigated Crops

Following harvest of furrow-irrigated or flood-irrigated crops, thoroughly mix soil by plowing or deep disking to minimize the potential for herbicide carryover to the following crop.

Use of Raptor in accordance with label directions is expected to result in normal growth of rotational crops in most situations; however, various environmental and agronomic factors, such as arid conditions, make it impossible to eliminate all risks associated with the use of this product and, therefore, rotational crop injury is always possible.

Limitations, Restrictions, and Exceptions

LIMA BEANS (SUCCULENT)

Not for use on lima bean (succulent) in California.

For postemergence use in lima bean (succulent).

Apply Raptor ONLY if proper agronomic practices have been used, including good soil fertility, proper crop rotation, disease and insect management and tillage practices that eliminate compaction and hardpans.

Occasionally, internode shortening and/or temporary yellowing of crop plants may occur following Raptor application in lima bean. These effects can be more pronounced if crops are growing under stressful environmental or hot and humid conditions. These effects occur infrequently and are temporary. Normal growth and appearance should resume within days.

THIS PRODUCT WHEN USED ON LIMA BEAN (SUCCULENT) MAY LEAD TO CROP INJURY, LOSS, OR DAMAGE. BASF RECOMMENDS THAT THE USER AND/OR GROWER TEST THIS PRODUCT TO DETERMINE ITS SUITABILITY FOR SUCH INTENDED USE.

Use Rate

Early Postemergence Application. Apply Raptor to lima bean (succulent) at the broadcast rate of 4 fl ozs/acre (0.031 lb imazamox ae/acre) tank mixed with Basagran® herbicide at 6 fl ozs to 16 fl ozs/acre. When used in lima beans, Raptor must be applied with Basagran to minimize crop response. Basagran application at rates higher than 16 fl ozs/acre may reduce grass control.

Base application timing on weed size and crop growth stage. Apply to actively growing crop and weeds. Apply Raptor + Basagran postemergence to lima beans in the first to second trifoliolate leaf stage and to weeds that are less than 3-inches tall. Application before the first trifoliolate leaf stage may result in increased crop response. DO NOT apply Raptor + Basagran to lima beans during flowering.

Nonionic surfactant MUST be added to the spray solution. NIS MUST contain at least 80% active ingredient and be used at 1 quart/100 gallons of spray solution.

Raptor tank mixes with any pesticide other than Basagran are not recommended. Certain insecticide and herbicide tank mixes with Raptor in lima beans have shown unacceptable crop response.

Apply Raptor a minimum of 1 hour before rainfall or overhead irrigation.

Lima Bean (Succulent) Restrictions and Limitations

- DO NOT make more than one Raptor application to lima bean (succulent) per year (growing season).
- DO NOT apply more than 4 fl ozs Raptor/acre (0.031 lb imazamox ae/acre) to lima bean (succulent) per year (growing season).

Refer on the label for Maximum Weed Size inches.

Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

Rates

[field_rates 0](#)

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Restricted Entry Interval

4 hours

EXCEPTION: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

Timings

[Postemergence \(Crop\)](#)