



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

May 5, 2021

Christa Ellers-Kirk
Country Regulatory Manager
BASF Corporation
26 Davis Drive
Research Triangle Park, NC 27709-3528

Subject: Registration Review Label Mitigation for Bentazon and Imazamox
Product Name: Varisto Herbicide
EPA Registration Number: 241-447
Application Dates: 07/26/2018 and 04/15/2020
Decision Numbers: 567824 and 567825

Dear Ms. Ellers-Kirk:

The Agency, in accordance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended, has completed reviewing all the information submitted with your application to support the Registration Review of the above referenced product in connection with the Bentazon and Imazamox Interim Decisions, and has concluded that your submission is acceptable. The label referred to above, submitted in connection with registration under FIFRA, as amended, is acceptable.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

A copy of your label stamped "Accepted" is enclosed. Products shipped after 12 months from the date of this amendment must bear the new revised label. Your release for shipment of the product bearing the amended label constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

Page 2 of 2
EPA Reg. No. 241-447
Decision No. 567824 and 567825

If you have any questions about this letter, please contact Quinn Gavin by phone at 703-347-0325, or via email at gavin.quinn@epa.gov.

Sincerely,

A handwritten signature in blue ink, appearing to read "Linda Arrington", with a stylized flourish at the end.

Linda Arrington, Branch Chief
Risk Management and Implementation Branch 4
Pesticide Re-Evaluation Division
Office of Pesticide Programs

Enclosure

[Note to PM: This is the Front Panel/First Page of Booklet]



We create chemistry

Imazamox	Group	2	Herbicide
Bentazon	Group	6	Herbicide

Varisto®

Herbicide

ACCEPTED

May 05, 2021

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 241-447

For use in clover grown for seed, dry beans, dry peas, English pea (succulent), lima bean (succulent), snap bean, and soybean

Active Ingredients:

sodium salt of imazamox: 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1H-imidazol-2-yl]-5-(methoxymethyl)-3-pyridinecarboxylic acid 2.00%

sodium salt of bentazon: (3-(1-methylethyl)-1H-2,1,3-benzothiadiazin-4(3H)-one 2,2-dioxide). 43.66%

Other Ingredients: 54.34%

Total: 100.00%

1 gallon is equivalent to 1.87% or 0.187 pound of imazamox acid and 40.0% or 4.0 pounds of bentazon acid, formulated as a soluble liquid.

EPA Reg. No. 241-447

EPA Est. No.

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID: If swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. **DO NOT** induce vomiting unless told to do so by a poison control center or doctor. **DO NOT** give anything by mouth to an unconscious person. **If on skin or clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 to 20 minutes. Call a poison control center or doctor for treatment advice. **If in eyes:** Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes; then continue rinsing eyes. Call a poison control center or doctor for treatment advice. **HOTLINE NUMBER:** Have the product container or label with you when calling a poison control center or doctor or going for treatment. In case of an emergency endangering life or property involving this product, call BASF Corporation for emergency medical treatment information, day or night 1-800-832-HELP (4357).

See full label for complete **Precautionary Statements, Directions For Use, Conditions of Sale and Warranty**, and state-specific crop and/or use site restrictions.

Net Contents:

BASF Corporation
26 Davis Drive, Research Triangle Park, NC 27709

FIRST AID

If swallowed	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• DO NOT induce vomiting unless told to do so by a poison control center or doctor.• DO NOT give anything by mouth to an unconscious person.
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HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. In case of an emergency endangering life or property involving this product, call BASF Corporation for emergency medical treatment information, day or night 1-800-832-HELP (4357).

Precautionary Statements

Hazards to Humans and Domestic Animals

CAUTION. Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Follow the manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. **DO NOT** reuse them.

USER SAFETY RECOMMENDATIONS

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

This pesticide may be hazardous to plants outside the treated area. **DO NOT** apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark except as directed in this label. Off-site movement from spray drift, volatilization, and runoff may be hazardous to neighboring crops and vegetative habitat used for food and cover by wildlife and aquatic organisms. **DO NOT** contaminate water when disposing of equipment washwater or rinsate.

Bentazon is known to leach through soil into groundwater under certain conditions as a result of agricultural use. Use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Nontarget Organism Advisory Statement: This product is toxic to plants and may adversely impact the forage and habitat of nontarget organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of nontarget organisms by following label directions intended to minimize spray drift.

Groundwater Advisory Statement: This chemical has properties and characteristics associated with chemicals detected in groundwater. This chemical may leach into groundwater if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisory Statement: This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow groundwater. This product is classified as having high potential for reaching surface water via runoff for several months or more after application.

A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of **Varisto® herbicide** from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall or irrigation is expected to occur within 48 hours.

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.

Observe all precautions and limitations in this label and the labels of products used in combination with **Varisto® herbicide**. **DO NOT** apply **Varisto** in any manner not specifically described in this label. Keep containers closed to avoid spills and contamination.

Unless otherwise directed in supplemental labeling, all applicable directions, restrictions, precautions, and **Conditions of Sale and Warranty** are to be followed.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **48 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.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Waterproof gloves
- Shoes plus socks

STORAGE AND DISPOSAL

DO NOT contaminate water, food, or feed by storage or disposal.

Pesticide Storage

- KEEP FROM FREEZING.
- **DO NOT** store below 32° F.

Pesticide Disposal

Wastes resulting from the use of this product must be disposed of on-site or at an approved waste disposal facility.

Container Handling

Nonrefillable Container. DO NOT reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.

Triple rinse containers small enough to shake (capacity ≤ 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

Triple rinse containers too large to shake (capacity > 5 gallons) as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

Pressure rinse as follows: Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

(continued)

STORAGE AND DISPOSAL *(continued)*

Container Handling *(continued)*

Refillable Container. Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

Triple rinse as follows: To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

When this container is empty, replace the cap and seal all openings that have been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with a pesticide product. **DO NOT** reuse the container for any other purpose. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transport. **DO NOT** transport if this container is damaged or leaking. If the container is damaged, or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with state and local regulations.

In Case of Emergency

In case of large-scale spill of this product, call:

- CHEMTREC 1-800-424-9300
- BASF Corporation 1-800-832-HELP (4357)

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- BASF Corporation 1-800-832-HELP (4357)

Steps to take if material is released or spilled:

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

Product Information

Varisto® herbicide controls broadleaf weeds and grass weeds by postemergence contact and systemic activity. After an application of **Varisto**, susceptible weeds may show yellowing, bronzing, and necrosis. Adequate soil moisture is important for optimum **Varisto** activity. When adequate soil moisture is present, **Varisto** provides residual activity on susceptible germinating weeds. Activity on established weeds depends on weed species and the location of its root system in the soil.

When organophosphate insecticide or carbamate insecticide is tank mixed with **Varisto**, temporary injury to the treated crop may result. Separate organophosphate and **Varisto** application by at least 7 days to reduce potential for injury.

All labeled crops are tolerant to **Varisto**. Leaf speckling or bronzing may occur, but plants generally outgrow this condition within 10 days. New growth is normal, and crop vigor is not reduced. Occasionally, internode shortening and/or temporary yellowing of crop plants may occur following **Varisto** application. 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 1 to 2 weeks.

Use of **Varisto** 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 use of this product and, therefore, rotational crop injury is always possible.

Replanting

If replanting is necessary in a field previously treated with **Varisto**, the field may be replanted to **Clearfield®** corn, lentil, and rice; dry beans and dry peas except non-**Clearfield** lentil; English pea; lima bean (succulent); snap bean; or soybean. Rework the soil no deeper than 2 inches. **DO NOT** apply a second treatment of **Varisto**. **DO NOT** apply another ALS-inhibiting herbicide if replanting is required.

Mode of Action

Varisto contains two herbicide active ingredients: imazamox and bentazon. Imazamox, a **Group 2** (WSSA) herbicide, inhibits branched chain amino acid production in plants by inhibition of the enzyme acetolactate synthase (ALS) or acetohydroxy acid synthase (AHAS). Bentazon, a **Group 6** (WSSA) herbicide, inhibits photosynthesis at photosystem II (PS II).

Varisto is readily absorbed by leaves. Growth of susceptible plants is inhibited within a few hours after application. Chlorosis begins 3 to 5 days after application followed by foliar desiccation and necrosis. Foliar bronzing may occur on tolerant crops such as soybean.

Herbicide Resistance Management

For resistance management, **Varisto® herbicide** contains both a **Group 2** and a **Group 6** herbicide. Any weed population may contain plants naturally resistant to **Group 2** and/or **Group 6** herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same fields. Appropriate resistant-management strategies should be followed.

To delay herbicide resistance consider:

- Avoiding the consecutive use of herbicides that have a similar target-site-of-action on the same weed species.
- Using tank mixes or premixes with herbicides from different target-site-of-action groups as long as the involved products are all registered for the same use, have different sites of action, and are both effective at the tank mix or prepack rate on the weed(s) of concern.
- Basing herbicide use on a comprehensive IPM (Integrated Pest Management) program including cultural and mechanical methods.
- Monitoring treated weed populations for loss of field efficacy, and control of escapes with effective alternative herbicides or mechanical methods.
- Identify weeds present in the field through scouting and field history and understand their biology. The weed-control program needs to consider all of the weeds present.
- Scout fields prior to application to identify the weed species present and their growth stage to determine if the intended application will be effective.
- Scout fields after application to verify the treatment was effective.
- Suspected herbicide-resistance weeds may be identified by these indicators:
 1. Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
 2. A spreading patch of non-controlled plants of a particular weed species; and
 3. Surviving plants mixed with controlled individuals of the same species.
- If resistance is suspected, treat weed escapes with a herbicide with a different MOA and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Report any incidence of non-performance of this product against a particular weed species to your BASF representative.
- Contacting your local extension specialist, certified crop advisors, and/or manufacturer for herbicide resistance management and/or integrated weed management directions for specific crops and resistant weed biotypes.

Spray Additives

Postemergence application of Varisto requires the addition of an adjuvant and nitrogen fertilizer unless otherwise directed in this label.

Adjuvants

When an adjuvant (or a specific adjuvant product, such as a drift control agent) is to be used with this product, the use of a Chemical Producers and Distributors Association (CPDA) certified adjuvant is recommended.

To achieve consistent weed control, an adjuvant [methylated seed oil (MSO), crop oil concentrate (COC), or nonionic surfactant (NIS)] **AND** a nitrogen fertilizer [urea ammonium nitrate (UAN) or ammonium sulfate (AMS)] are required. The addition of an adjuvant may cause some leaf burn, but new growth is normal and crop vigor is not reduced. The potential for leaf burn is increased when relative humidity and temperature are high. **See Crop-specific Information for restriction of additive use on specific crops.**

Methylated Seed Oil

MSO is recommended when weeds are under moisture or temperature stress. Use methylated seed oil at 1 gallon/100 gallons of spray solution [1% volume/volume (v/v)].

OR

Crop Oil Concentrate

Use COC adjuvant at 1 to 2 gallons/100 gallons of spray solution (1% to 2% v/v). Use high surfactant oil concentrate (HSOC) at 0.5 gallon/100 gallons of spray solution (0.5% v/v).

OR

Nonionic Surfactant

Use NIS containing at least 80% active ingredient. Apply surfactant at 1 quart/100 gallons of spray solution (0.25% v/v). Organosilicone surfactant may be used instead of NIS.

AND

Nitrogen Fertilizer

Recommended nitrogen-based fertilizers include liquid fertilizers (such as liquid AMS, 28% N, 32% N, or 10-34-0) at 2.5 gallons/100 gallons of spray solution. Instead of liquid fertilizer, spray grade AMS may be used at 12 lbs to 15 lbs/100 gallons of spray solution.

Tank Mix Compatibility Test for Mix Components

Before mixing additives and/or other pesticides, always perform a compatibility jar test. For 20 gallons per acre spray volume, use 3.3 cups (800 mL) of water. For other spray volumes, adjust rates accordingly. Only use water from the intended source at the source temperature. Add components in the sequence indicated in **Mixing Order** using 2 teaspoons for each pound or 1 teaspoon for each pint of label rate per acre. Always cap the jar and invert 10 cycles between component additions. When the components have all been added to the jar, let the solution stand for 15 minutes. Evaluate the solution for uniformity and stability. The spray solution should not have free oil on the surface, fine particles that precipitate to the bottom, or thick (clabbered) texture. If the spray solution is not compatible, repeat the compatibility test with the addition of a suitable compatibility agent. If the solution is then compatible, use the compatibility agent as directed on its label. If the solution is still incompatible, **DO NOT** mix the ingredients in the same tank.

Tank Mix Combinations with other Herbicides

See **Crop-specific Information** for details. 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. **DO NOT** exceed label dosages. **DO NOT** mix **Varisto® herbicide** with any product containing a label prohibiting such mixtures.

Make separate applications if target weeds are not all at the labeled growth stage for treatment at the same time.

Mixing Order

Maintain agitation throughout mixing and application until spraying is completed. If other herbicides or other spray tank components are tank mixed with **Varisto**, while agitating, add components in the following order and thoroughly mix after adding each component.

1. Fill spray tank 1/2 to 3/4 full with clean water.
2. Add soluble-packet products and thoroughly mix.
3. Add WP (wetable powder), DG (dispersible granule), DF (dry flowable), or liquid flowable formulations not in soluble packets.
4. Add **Varisto** and thoroughly mix.
5. Add other aqueous solution products.
6. Add EC (emulsifiable concentrate) products.
7. Add adjuvant or surfactant to spray tank.
8. Add nitrogen fertilizer solution.
9. Fill remainder of the tank with water.

Application Instructions

Varisto may be applied by ground or air. Thorough spray coverage is required for optimum control of emerged weeds and can be improved with proper adjuvant, nozzle, and spray volume selection. Use and configure application equipment for adequate spray volume, accurate and uniform distribution of spray droplets over the treated area, and to avoid spray drift to non-target areas. Adjust equipment to maintain continuous agitation during spraying with good mechanical or bypass agitation. Avoid overlaps that will increase rates above use rates specified in this label.

Varisto can affect non-target plant species outside the treatment area. To limit adverse effects to non-target plants, the applicator must avoid making applications when wind can facilitate off-site movement of **Varisto** in the direction of areas such as forested areas, riparian areas, wetlands, and areas that serve as habitat for desirable and protected animal species.

Ground Application

Water Volume. Use a minimum spray volume of 10 gallons of water per acre to ensure adequate spray coverage. Use higher spray volume (up to 20 gallons of water per acre) to improve spray coverage when crop and weed foliage is dense.

DO NOT use flood, whirl chamber, or controlled droplet applicator (CDA) nozzles or selective application equipment such as recirculating sprayers or wiper applicators. **DO NOT** use brass nozzles because of the corrosive effects of nitrogen additives.

Aerial Application

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

Water Volume. Use a minimum spray volume of 5 gallons of water per acre.

DO NOT apply **Varisto** by air if sensitive crops (including, but not limited to: non-imidazolinone-tolerant canola, lentil, rice, sunflower, or wheat; cotton; leafy vegetables; okra; and sugar beet) are within 200 feet downwind.

Mandatory Spray Drift Management

Ground Boom Applications

- User must only apply with the release height recommended by the manufacturer, but no more than 3 ft above the ground or crop canopy.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 10 mph at the application site.
- **DO NOT** apply during temperature inversions or stable atmospheric conditions.

Aerial Applications

- **DO NOT** release spray at a height greater than 10 ft above the ground or vegetative canopy, unless a greater application height is necessary for pilot safety.
- For applications prior to the emergence of crops and target weeds, applicators are required to use a coarse or coarser droplet size (ASABE S572.1).
- For all other applications, applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 10 mph at the application site. The boom length must be 75% or less of the wingspan for fixed wing aircraft and 90% or less of the rotor diameter for helicopters.
- Applicators must use 1/2 swath displacement upwind at the downwind edge of the field.
- The spray boom must be mounted on the aircraft so as to minimize drift caused by wing tip or rotor blade vortices.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- **DO NOT** apply during temperature inversions or stable atmospheric conditions.

Spray Drift Advisories

The applicator is responsible for avoiding off-site spray drift. Be aware of nearby nontarget sites and environmental conditions.

Importance of Droplet Size

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom

Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.

Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.

Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size - Aircraft

Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

Boom Height - Ground Boom

Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom should remain level with the crop and have minimal bounce.

Release Height - Aircraft

Higher release heights increase the potential for spray drift.

Shielded Sprayers

Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

Temperature and Humidity

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

Temperature Inversions

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

Wind

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.** Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. **DO NOT** make applications when wind speed is below 2 mph because of variable wind direction and high inversion potential.

Runoff Prevention

To protect the environment, **DO NOT** allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area. Rinsing application equipment over

the treated area will help avoid run off to water bodies or drainage systems.

Pollinator Advisory Statement. This product contains bentazon, which may adversely impact the forage and habitat of local pollinators, including the monarch butterfly (and its larvae), birds, or bats if it reaches non-target areas. Protect pollinators by following label directions to minimize spray drift.

Application Information

Apply **Varisto® herbicide** postemergence as broadcast, band, or spot-spray application when weeds are small or actively growing and before they exceed the maximum specified size (see **Weeds Controlled** section).

For best control, apply **Varisto** at specified rates to actively growing weeds when weeds are small before they reach maximum sizes listed in **Table 1**. Early application produces the most beneficial effect on weed control (**EXCEPTIONS:** yellow nutsedge and Canada thistle) and makes thorough spray coverage easier to obtain. Delaying application allows weeds to exceed the maximum specified size and will prevent adequate control.

In general, apply **Varisto** when weeds are less than 3-inches tall and actively growing. Weeds must be thoroughly covered with spray. Dense leaf canopies shelter smaller weeds and can prevent adequate spray coverage.

In irrigated areas, it may be necessary to irrigate before treatment to ensure active weed growth because weeds growing under drought conditions usually are not satisfactorily controlled.

An adjuvant (COC, MSO, or NIS) **AND** a nitrogen fertilizer **MUST** be added to the spray solution for best weed control, except as indicated in **Crop-specific Information** (refer to requirements and restrictions of adjuvant use for specific crops). Refer to the **Adjuvants** section for specific instructions and rates required.

When **Varisto** is applied postemergence, absorption will occur through both roots and foliage. Susceptible weeds stop growing and die or are not competitive with the crop. **Varisto** not only controls many existing broadleaf weeds and grass weeds when applied postemergence, it is also active 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 than optimal.

Cleaning Spray Equipment

To avoid injury to sensitive crops, spray equipment used for **Varisto** application must be drained and thoroughly cleaned before being used to apply other products. Clean application equipment thoroughly by using a strong detergent or commercial sprayer cleaner according to the

manufacturer's directions, followed by triple rinsing the equipment before and after applying **Varisto**.

Restrictions and Limitations (All Crops)

- **DO NOT** cultivate within 5 days before applying **Varisto** or within 7 days after application. Timely cultivation after 7 days may help provide overall weed control, especially under dry conditions.
- **DO NOT** apply more than a total of 2.0 pounds of bentazon ai (from all sources) per acre, per year.
- The minimum retreatment interval between products containing bentazon is 7 days.
- **DO NOT** apply to weeds under stress such as lack of moisture, mechanical injury, cold temperatures, hail damage, flooding, drought, injury from other herbicides, or widely fluctuating temperatures or unsatisfactory control may result.
- **DO NOT** apply to crops that show injury (leaf phytotoxicity or plant stunting) produced by any other prior herbicide applications because this injury may be enhanced or prolonged.
- **Rainfast period** - Rainfall or overhead irrigation within 4 hours after application may reduce the effectiveness of **Varisto**.
- **DO NOT** apply through any type of irrigation system.
- **DO NOT** tank mix organophosphate insecticide or carbamate insecticide with **Varisto** unless otherwise specified in writing by BASF.

Weeds Controlled

Varisto applied postemergence will control or suppress weeds listed in **Table 1**.

Table 1. Weeds Controlled and Suppressed			
	Varisto® herbicide (fl ozs/A)		
	16	21	27
	Weed Size (inches)		
Broadleaf Weeds Controlled			
Anoda, spurred	—	—	3
Artichoke, Jerusalem	—	—	3 to 8
Balloonvine	—	—	2
Bedstraw	—	3	3
Beet, wild	—	3	3
Beggarticks	—	—	6
Buckwheat, wild	—	—	3

(continued)

Table 1. Weeds Controlled and Suppressed <i>(continued)</i>			
	Varisto® herbicide (fl ozs/A)		
	16	21	27
	Weed Size (inches)		
Broadleaf Weeds Controlled <i>(continued)</i>			
Buttercup	—	3	3
Canola, volunteer (non- Clearfield ®)	—	3	3
Chickweed, common	—	—	3
Cocklebur, common	4	4	2 to 8
Croton, tropic	—	—	2
Dayflower	—	—	4
Devil's-claw	—	4	4
Eclipta	—	—	2
Flixweed	—	3	3
Jimsonweed	4	4	6
Knotweed, prostrate	—	—	3
Lambsquarters, common (east of the Rocky Mountains)	—	1.5	2 to 5
Lambsquarters, common (west of the Rocky Mountains)	—	—	2 to 5
Lettuce, miner's	—	—	3
Mallow, common	—	3	3
Mallow, Venice	2	2	1 to 4
Marshelder	—	—	2 to 4
Mayweed/Dogfennel	—	—	2
Morningglory, entireleaf	—	—	3
Morningglory, ivyleaf	—	—	3
Morningglory, smallflower	—	—	3
Morningglory, tall	—	—	3
Mustard, black	3	3	3
Mustard, tumble	3	3	3
Mustard, wild	3	3	3
Nettle, burning	—	—	2
Nettleleaf goosefoot	—	3	3
Nightshade, black	3	3	3
Nightshade, Eastern black	3	3	3
Nightshade, hairy	3	3	3
Pennycress, field	3	3	3
Pigweed, prostrate	—	—	2 to 5
Pigweed, redroot	3	3	4
Pigweed, smooth	3	3	4
Pigweed, spiny	3	3	3

(continued)

Table 1. Weeds Controlled and Suppressed <i>(continued)</i>			
	Varisto® herbicide (fl ozs/A)		
	16	21	27
	Weed Size (inches)		
Broadleaf Weeds Controlled <i>(continued)</i>			
Puncturevine	—	3	3
Purslane, common	—	—	1
Radish, volunteer	—	—	4
Radish, wild	—	3	3
Redweed	—	—	6
Rocket, London	—	—	3
Rocket, yellow	—	—	4
Shepherd's-purse	3	3	4
Sida, prickly/Teaweed	—	—	3
Smartweed, ladysthumb	4	4	6
Smartweed, Pennsylvania	4	4	6
Smartweed, swamp	—	—	3
Spurge, prostrate	—	—	3
Starbur, bristly	—	—	2
Sugar beet, volunteer	—	—	2 to 4 leaf
Sunflower, wild or volunteer (non- Clearfield ®)	3	3	2 to 8
Swinecress	—	—	3
Tansymustard, green	—	3	3
Thistle, Russian	—	—	3
Velvetleaf	2	3	3
Willoweed panicle	—	—	3
Broadleaf Weeds Suppressed			
Amaranth, Palmer (ALS-susceptible)	—	—	2 to 4
Bindweed, field (seedling)	—	—	2 to 4
Bindweed, hedge (seedling)	—	—	2 to 4
Buckwheat, wild	—	3	—
Chickweed, common	—	3	—
Dandelion	—	3	3
Dock, curly	—	—	3
Flax	—	2	2
Knotweed, prostrate	—	3	—
Kochia, non-ALS resistant	—	3	3
Lambsquarters, common	1	3	—
Lettuce, miner's	—	3	—
Morningglory, cypressvine	—	—	4

(continued)

Table 1. Weeds Controlled and Suppressed <i>(continued)</i>			
	Varisto® herbicide (fl ozs/A)		
	16	21	27
	Weed Size (inches)		
Broadleaf Weeds Suppressed <i>(continued)</i>			
Morningglory, entireleaf	—	3	—
Morningglory, ivyleaf	—	3	—
Morningglory, pitted	—	—	2 to 4
Morningglory, smallflower	—	3	—
Morningglory, tall	—	3	—
Poinsettia, wild	—	—	4
Purslane, common	—	3	—
Ragweed, common (ALS-susceptible)	—	—	3
Ragweed, giant (ALS-susceptible)	—	—	3
Rocket, London	—	3	—
Rocket, yellow	—	3	—
Sida, prickly/Teaweed	—	—	2 to 4
Sowthistle, annual	—	—	2 to 4
Spurge, prostrate	—	3	—
Thistle, Canada	—	—	2 to 5
Grass Weeds and Sedge Controlled			
Barley, wild	—	—	2 to 4
Barnyardgrass	—	—	3
Blackgrass	—	3	3
Brome, California	—	3	3
Brome, cheat	—	3	3
Brome, downy	—	3	3
Brome, Japanese	—	3	3
Canarygrass, littleseed	—	3	3
Cereals, volunteer barley	—	3	3
Cereals, volunteer oat	—	3	3
Cereals, volunteer wheat (non- Clearfield ®)	—	3	3
Corn, volunteer (non- Clearfield)	—	2 to 8	2 to 8
Darnel, Persian	—	3	3
Foxtail, giant	—	3	3
Foxtail, green	—	3	3
Foxtail, yellow	—	3	3
Goatgrass, jointed	—	3	3
Johnsongrass, seedling	—	—	4 to 8

(continued)

Table 1. Weeds Controlled and Suppressed <i>(continued)</i>			
	Varisto® herbicide (fl ozs/A)		
	16	21	27
	Weed Size (inches)		
Grass Weeds and Sedge Controlled <i>(continued)</i>			
Lovegrass	—	3	3
Millet, wild proso	—	—	3
Nutsedge, yellow	—	—	8
Oat, wild	—	3	3
Panicum, fall	—	—	2 to 6
Quackgrass, seedling	—	3	3
Rye, feral or cereal	—	—	3
Ryegrass, Italian	—	3	3
Shattercane	—	3	3
Signalgrass, broadleaf (light-to-moderate population density only)	—	—	2 to 5
Grass Weeds and Sedge Suppressed			
Barnyardgrass	—	3	—
Crabgrass, large	—	3	3
Crabgrass, smooth	—	3	3
Cupgrass, woolly	—	—	2 to 4
Fescue, rattail	—	1	1
Goosegrass	—	—	2 to 4
Johnsongrass, rhizome	—	3	3
Nutsedge, purple	—	3	3
Nutsedge, yellow	—	3	—
Quackgrass, rhizome	—	3	3
Stinkgrass	—	—	2 to 4

Crop-specific Information

Clover Grown for Seed

For use only in Oregon and Washington. For use only in fields of clover grown for seed production.

Clover is tolerant to **Varisto**; however, some leaf burning may occur under certain conditions. Clover plants generally outgrow this condition within 10 days.

Application Rate and Timing

Apply **Varisto** postemergence at 21 fl ozs/A to 27 fl ozs/A before clover bloom when clover has a minimum of 2 trifoliate leaves, and when the majority of weeds are 1-inch to 3-inches tall.

An adjuvant and nitrogen fertilizer **must** be used with **Varisto** on clover. COC, MSO, or NIS may be used. Refer

to the **Adjuvants** section for the recommended adjuvant and nitrogen fertilizer. Using COC and MSO with **Varisto**[®] **herbicide** on clover grown for seed may increase injury and may reduce yield.

Clover Grown for Seed Restrictions and Limitations

- **DO NOT** make more than one application of **Varisto** per year.
- **DO NOT** apply more than 27 fl ozs of **Varisto/A** per year to clover grown for seed.
- **DO NOT** apply to clover subjected to stress conditions, such as hail damage, flooding, drought, injury from other herbicides, or widely fluctuating temperatures, or crop injury may result.
- **DO NOT** graze livestock or harvest forage or hay for livestock feed for at least 36 days after treatment.

Dry Beans

DO NOT apply Varisto to dry beans in California.

Varisto may be applied to the following types of dry beans:

- Adzuki
- Anasazi
- Black
- Black turtle
- Cranberry
- Faba/fava
- Great Northern
- Lima (dry)
- Navy
- Pink
- Pinto
- Red kidney
- Small red
- Small white

Reduced crop growth and quality; leaf burning, bronzing, and speckling; yellowing; delayed maturity; and reduced yield may result from application of **Varisto** to dry bean types listed on this label. Because crop maturity may be delayed, adjust timing of harvest accordingly. **DO NOT** apply **Varisto** if planting is delayed and chance of frost before maturity is likely. Some dry bean varieties are more sensitive to **Varisto**. Growers should check with the seed company regarding the safety of **Varisto** on their variety.

Unusually cool temperatures (50° F or less) reduce photosynthesis and transpiration and, thus, reduce uptake, translocation, and efficacy of **Varisto** in weeds. Delaying application of **Varisto** for 48 hours from the time temperature increases to above 50° F, if air temperature has been below 50° F for 10 or more hours, improves weed control and reduce crop response.

Apply **Varisto 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.

THIS PRODUCT WHEN USED ON DRY BEANS 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.

Application Rate and Timing

Apply **Varisto** at 16 fl ozs/A to 21 fl ozs/A before bloom stage but after dry beans have at least one fully expanded trifoliolate leaf. Delay application until the majority of weeds are at the specified growth stage. Apply to actively growing weeds.

An adjuvant and nitrogen fertilizer **must** be used with **Varisto** on dry beans. COC, MSO, or NIS may be used. Refer to the **Adjuvants** section for recommended adjuvant and nitrogen fertilizer. Using COC or MSO with **Varisto** on dry beans may increase injury and reduce yield.

Minnesota, Montana, North Dakota, South Dakota, and Wyoming

Varisto may be applied at 11 fl ozs/A to aid in the control of volunteer canola and mustard species weeds in Minnesota, Montana, North Dakota, South Dakota, and Wyoming.

Apply **Varisto** at 11 fl ozs/A to volunteer canola and mustard species weeds before the bloom stage of dry beans. **Varisto** at 11 fl ozs/A is not intended to be applied as a stand-alone product and is intended to be used in tank mix combination with 16.8 fl ozs/A of **Basagran**[®] **5L herbicide** and a graminicide. Use the appropriate adjuvant and nitrogen fertilizer for dry beans as recommended in **Application Rate and Timing**.

Dry Beans Restrictions and Limitations

- **DO NOT apply Varisto to chickpea (garbanzo bean), lupines, or lentil.**
- **DO NOT** apply **Varisto** to dry beans until the first trifoliolate leaf has fully expanded because severe crop damage may occur.
- Application of **Varisto** must be made before dry beans bloom.
- **DO NOT** make more than one application of **Varisto** per year.
- **DO NOT** apply more than a maximum of 21 fl ozs **Varisto/A** per year to dry beans.
- **DO NOT apply more than 16 fl ozs of Varisto/A per year to dry beans grown in Georgia and South Carolina. DO NOT tank mix with additional bentazon product.**
- **DO NOT** apply **Varisto** to dry beans within 30 days of harvest.
- Following harvest of furrow-irrigated or flood-irrigated dry beans, thoroughly mix soil by plowing or deep disking to a minimum of 8 inches to minimize the potential for herbicide carryover to the follow crop.

Herbicide Combinations

Varisto® herbicide may be applied to dry beans in a tank mix or sequential herbicide program including, but not limited to, the following products:

- **Basagran® 5L herbicide**
- **Outlook® herbicide**
- **Poast® herbicide**
- **Prowl® H2O herbicide** (sequential only; not for tank mix)

Dry Peas (other than English Pea)

DO NOT apply Varisto to dry peas in California.

Varisto may be applied to the following types of dry peas:

- Dry edible peas (field peas)
- Southern peas (cow peas)

Reduced crop growth and quality; leaf burning, bronzing, and speckling; temporary yellowing; delayed maturity; and reduced yield may result from application of **Varisto** to dry peas. Because crop maturity may be delayed, adjust timing of harvest accordingly. **DO NOT** apply **Varisto** if planting is delayed and chance of frost before maturity is likely. Some varieties of dry peas are more sensitive to **Varisto** than other varieties. Growers should check with the seed company regarding the safety of **Varisto** on their variety.

Apply **Varisto 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.

THIS PRODUCT WHEN USED ON DRY PEAS 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.

Application Rate and Timing

Apply **Varisto** at 16 fl ozs/A to 21 fl ozs/A to dry peas before bloom stage but after dry peas have at least 3 pairs of leaves.

Delay application until the majority of weeds are at the specified growth stage. Apply to actively growing weeds.

An adjuvant and nitrogen fertilizer **must** be used with **Varisto**. COC, MSO, or NIS may be used. Refer to the **Adjuvants** section for the recommended adjuvant and nitrogen fertilizer. Using COC or MSO with **Varisto** on dry peas may increase injury and reduce yield.

Minnesota, Montana, North Dakota, South Dakota, and Wyoming

Varisto may be applied at 11 fl ozs/A to aid in the control of volunteer canola and mustard species weeds in Minnesota, Montana, North Dakota, South Dakota and Wyoming.

Apply **Varisto** at 11 fl ozs/A to mustard species weeds before bloom stage of dry peas. **Varisto** at 11 fl ozs/A is not intended to be applied as a stand-alone product and is intended to be used in tank mix combination with 4 fl ozs/A to 12 fl ozs/A of **Basagran 5L** and a labeled rate of a graminicide. When applying 11 fl ozs of **Varisto/A**, MSO may be used. When using MSO in dry peas, nitrogen fertilizer is optional.

Dry Peas (other than English pea) Restrictions and Limitations

- **DO NOT apply Varisto to chickpea (garbanzo bean), lupines, or lentil.**
- **DO NOT** apply **Varisto** to dry peas after pea flower buds appear or are in bloom.
- **DO NOT** make more than one application of **Varisto** per year.
- **DO NOT** apply more than a maximum of 21 fl ozs **Varisto/A** to dry peas per year.
- **DO NOT apply more than 16 fl ozs of Varisto/A per year to dry peas grown in Georgia and South Carolina. DO NOT tank mix with additional bentazon product.**
- **DO NOT** use MSO in dry peas when using rates higher than 11 fl ozs of **Varisto/A**.
- **DO NOT** apply **Varisto** to dry peas within 30 days of harvest.
- **DO NOT** apply **Varisto** to dry peas when temperatures exceed 90° F.
- In Western regions, avoid applying **Varisto** to dry peas during prolonged periods of cold weather (day temperature below 75° F and night temperature below 55° F for 2 to 5 days) because weed control may be reduced.
- Dry peas under stress from root rot may predispose dry peas to injury from **Varisto**.
- Infurrow treatments of insecticides or nematicides may also predispose dry peas to injury from **Varisto**.

Herbicide Combinations

Varisto may be applied to dry peas in a tank mix or sequential herbicide program including, but not limited to, the following products:

- **Basagran 5L**
- **Poast**
- **Prowl H2O** (sequential only; not for tank mix)
- **Sharpen® powered by Kixor® herbicide** (sequential only; not for tank mix)

English Pea (succulent)

DO NOT apply Varisto® herbicide to English pea (succulent) in California.

Reduced crop growth and quality; leaf burning, bronzing, and speckling; temporary yellowing; delayed maturity; and reduced yield may result from application of **Varisto** to English pea (succulent). Because crop maturity may be delayed, adjust timing of harvest accordingly. **DO NOT** apply **Varisto** if planting is delayed and chance of frost before maturity is likely. Some varieties of succulent peas are more sensitive to **Varisto**. Growers should check with the seed company regarding the safety of **Varisto** on their variety.

Use of trifluralin before application of **Varisto** may increase the likelihood and severity of crop injury.

Apply **Varisto 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.

THIS PRODUCT WHEN USED ON ENGLISH PEA 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.

Application Rate and Timing

Apply **Varisto** at 16 fl ozs/A to English peas at least 3-inches tall but before 5 nodes before flowering.

An adjuvant must be used with **Varisto**. COC, MSO or NIS may be used. Refer to the **Adjuvants** section for the recommended adjuvant. Using COC or MSO with **Varisto**, with or without nitrogen fertilizer on English Peas (succulent) may increase injury and reduce yield.

Use of an adjuvant and nitrogen fertilizer increases weed efficacy but also increases the potential for crop injury.

English Pea (succulent) Restrictions and Limitations

- **DO NOT** apply **Varisto** to English pea after first flower bud appears.
- **DO NOT** make more than one application of **Varisto** per year.
- **DO NOT** apply more than a maximum of 16 fl ozs **Varisto**/A per year to English pea (succulent).
- **DO NOT** apply **Varisto** to English pea within 10 days of harvest.
- **DO NOT** apply **Varisto** to English pea when temperature exceeds 90° F.
- Avoid applying **Varisto** to English pea during prolonged periods of cold weather (day temperature below 75° F and night temperature below 55° F for 2 to 5 days) because weed control may be reduced.

- English pea under stress from root rot may predispose English pea to injury from **Varisto**.
- In-furrow treatments of insecticides or nematicides may also predispose English pea to injury from **Varisto**.

Lima Bean (succulent)

DO NOT apply Varisto to lima bean (succulent) in California.

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

Apply **Varisto 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.

DO NOT tank mix **Varisto** with any other pesticide for applications to lima beans. Certain insecticide and herbicide tank mixes with **Varisto** in lima bean have shown unacceptable crop response.

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.

Application Rate and Timing

Apply **Varisto** postemergence at 16 fl ozs/A to 21 fl ozs/A to lima beans in the first trifoliolate to second trifoliolate leaf stage. Application before the first trifoliolate leaf stage may result in increased crop response.

An adjuvant must be used with **Varisto**. COC, MSO or NIS may be used. Refer to the **Adjuvants** section for the recommended adjuvant. Using COC or MSO with **Varisto**, with or without nitrogen fertilizer on Lima Beans (succulent) may increase injury and reduce yield.

Use of an adjuvant and nitrogen fertilizer increases weed efficacy but also increases the potential for crop injury.

Lima Bean (succulent) Restrictions and Limitations

- **DO NOT** apply **Varisto** to lima bean until at least the first trifoliolate leaf is fully expanded because severe crop damage may occur.
- **DO NOT** apply **Varisto** to lima bean during bloom.
- **DO NOT** make more than one application of **Varisto** per year.
- **DO NOT** apply more than a maximum of 21 fl ozs **Varisto**/A per year to lima bean (succulent).

Snap Bean

DO NOT apply Varisto® herbicide to snap bean in California.

Delay application until the majority of weeds are at the specified growth stage. Base application timing on weed size and crop growth stage. Apply **Varisto** to crop and weeds that are actively growing.

Occasionally, internode shortening and/or temporary yellowing of snap bean may occur following application of **Varisto**. These effects occur infrequently and are temporary and can be more pronounced if snap beans are growing under stressful environmental or hot and humid conditions. Normal growth and appearance should resume within days.

Apply **Varisto 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.

DO NOT tank mix **Varisto** with any other pesticide for applications to snap bean. Certain insecticide and herbicide tank mixes with **Varisto** in snap bean have shown unacceptable crop response.

THIS PRODUCT WHEN USED ON SNAP BEAN 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.

Application Rate and Timing

Apply **Varisto** postemergence at 16 fl ozs/A to 21 fl ozs/A to snap bean with at least one fully expanded trifoliolate leaf and before bloom stage. **Idaho, Oregon, and Washington: Apply Varisto to snap bean at first trifoliolate or second trifoliolate leaf stage.**

An adjuvant must be used with **Varisto**. COC, MSO or NIS may be used. Refer to the **Adjuvants** section for the recommended adjuvant. Using COC or MSO with **Varisto**, with or without nitrogen fertilizer on Snap Beans may increase injury and reduce yield.

Use of an adjuvant and nitrogen fertilizer increases weed efficacy but also increases the potential for crop injury.

Snap Bean Restrictions and Limitations

- **DO NOT** apply **Varisto** to snap bean until at least the first trifoliolate leaf is fully expanded because severe crop damage may occur.
- Application of **Varisto** must be made before snap beans bloom.
- **DO NOT** apply to snap beans that have been injured from application of soil-applied herbicides.
- **DO NOT** make more than one application of **Varisto** per year.

- **DO NOT** apply more than a maximum of 21 fl ozs **Varisto/A** per year to snap bean.

- **DO NOT** apply **Varisto** to snap bean within 30 days of harvest.

Soybean

DO NOT apply Varisto to soybean in California.

Varisto is effective in controlling weeds in conservation tillage and conventional soybean production systems. In soybean, apply **Varisto** postemergence but before the bloom stage to control existing weeds and provide residual activity.

Soybean is tolerant to **Varisto**. Slight leaf speckling and leaf bronzing may occur under certain conditions, but crops generally outgrow these conditions within 10 days.

Unusually cool temperatures (50° F or less) reduce photosynthesis and transpiration and, thus, reduce uptake, translocation, and efficacy of **Varisto** in weeds. Delaying application of **Varisto** for 48 hours from the time temperature increases to above 50° F, if air temperature has been below 50° F for 10 or more hours, will improve weed control and reduce crop response.

Application Rate and Timing

Apply **Varisto** postemergence at 21 fl ozs/A to 27 fl ozs/A after emergence but before crop bloom.

An adjuvant and nitrogen fertilizer **must** be used with **Varisto**. COC, MSO, or NIS may be used. Refer to the **Adjuvants** section for the recommended adjuvant and nitrogen fertilizer.

Varisto at 11 fl ozs/A to aid in the control of volunteer canola in North Dakota and Minnesota. Apply **Varisto** to emerged volunteer canola in soybeans before soybean bloom stage. Use 11 fl ozs of **Varisto/A** when tank mixed with glyphosate in **Roundup Ready®** soybean. Use the appropriate surfactants as recommended by the glyphosate label. **Varisto** will aid in the control of volunteer canola from 1-inch to 3-inches tall.

Varisto will not control **Clearfield®** canola.

Soybean Restrictions and Limitations

- Application of **Varisto** must be made before soybean bloom.
- **DO NOT** make more than one application of **Varisto** per year.
- **DO NOT** apply more than a maximum of 27 fl ozs of **Varisto/A** per year to soybean.
- **DO NOT** graze or cut treated soybean fields for forage or hay for at least 30 days after the last application of **Varisto**.

Herbicide Combinations

Varisto® herbicide may be applied to soybean in a tank mix or sequential herbicide program including, but not limited to, the following products:

- **Basagran® 5L herbicide**
- **Outlook® herbicide**
- **Poast® herbicide**
- **Prowl® H2O herbicide** (sequential only; not for tank mix)
- **Zidua® herbicide**
- glyphosate (**Roundup Ready®** soybean only)

Rotational Crop Restrictions

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



Region 1 - States and parts of states WEST of US Highway 83 (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)

Table 2. Rotational Interval (months) following Varisto® herbicide Application

Plant-back Interval (months)	Region 1	Region 2
Anytime	Clearfield ® corn (field and seed) Clearfield lentil Clearfield rice Dry beans and dry peas except non- Clearfield lentil English pea Lima bean (succulent) Snap bean Soybean	Clearfield corn (field and seed) Clearfield lentil Clearfield rice Dry beans and dry peas except non- Clearfield lentil English pea Lima bean (succulent) Snap bean Soybean
1	Clearfield canola Clearfield and Clearfield ® Plus sunflower Clearfield and Clearfield Plus wheat Edamame	Clearfield canola Clearfield and Clearfield Plus sunflower Clearfield and Clearfield Plus wheat Edamame
3	Alfalfa ^{1,4} Wheat (non- Clearfield)	Alfalfa ⁴ Wheat (non- Clearfield)
4	Rye	Rye
8-1/2	Corn (non- Clearfield field, seed, sweet, and popcorn)	Corn (non- Clearfield field, seed, sweet, and popcorn)
9	¹ Barley Cantaloupe Cotton Grain sorghum ⁵ Lentil (non- Clearfield) Lettuce Millet Oat Onion	Peanut Pumpkin Rice Squash Sunflower Tobacco Watermelon
9		¹ Barley Broccoli Cabbage Cantaloupe Carrot Cotton Cucumber Grain sorghum ⁵ Lentil (non- Clearfield) Lettuce Millet Oat
9		Onion Peanut Pepper ¹ Potato Pumpkin Rice Squash Sunflower Tobacco Tomato Turnip Watermelon
18	¹ Barley Broccoli Cabbage Carrot Cucumber Lentil (non- Clearfield) All other crops not listed in the Rotational Crop Restrictions	Pepper Potato Tomato Turnip All other crops not listed in the Rotational Crop Restrictions
18		¹ Barley Canola (non- Clearfield) Condiment mustard Lentil (non- Clearfield) All other crops not listed in the Rotational Crop Restrictions
26	Canola (non- Clearfield) Condiment mustard	³ Sugar beet Table beet
26		² Sugar beet ² Table beet

¹ Refer to the following tables for rotational intervals for planting following application of **Varisto**.

² In **Region 2**, sugar beet and table beet can be planted 18 months following an application of **Varisto** if the soil pH is uniformly 6.2 or greater. If the soil pH is less than 6.2, the rotational interval is 26 months. Sugar beet yield can be reduced when grown in soil conditions with a pH less than 6.2. If the soil is limed to adjust the soil pH, apply the lime at least 18 months before planting sugar beet or other rotational crops under the 18-month rotational interval.

³ For sugar beet grown in parts of Nebraska west of Highway 83, and Platte, Goshen, and Laramie counties in Wyoming, follow the sugar beet rotational crop restrictions for **Region 2** for sprinkler-irrigated fields only. If fields are dryland, flood or furrow irrigated, follow restrictions for **Region 1**. A minimum of 10 inches of overhead irrigation must be applied each season to qualify for **Region 2** guidelines.

⁴ Planting non-**Clearfield** spring or winter wheat in areas receiving less than 10 inches of precipitation from the time of **Varisto** application up until wheat planting may result in wheat injury. The possibility of injury increases if less than normal precipitation occurs from the time of application to planting and/or within the first 2 months after **Varisto** application.

⁵ In **Region 1** and **Region 2**, non-**Clearfield** lentil may be planted 9 months following an application of **Varisto** if no more than 27 fl ozs/A of **Varisto** has been applied and the soil pH is uniformly greater than 6.2.

Table 2. Rotational Interval (months) following Varisto® herbicide Application (continued)

Barley Rotational Interval based on pH, Moisture, and Tillage		Moldboard Plowing	
Region 1 and Region 2		NO	YES
pH and Rainfall requirements	>18 inches R+I AND pH >6.2	9 months	
	<18 inches R+I OR pH <6.2	18 months	9 months

Potato Rotational Interval based on pH and Moisture		
Region 2		
pH and Rainfall requirements	>18 inches R+I AND pH >6.2	9 months
	<18 inches R+I OR pH <6.2	18 months

Non-Clearfield® Wheat Rotational Interval based on pH, Moisture, and Tillage		Moldboard Plowing	
Region 1		NO	YES
pH and Rainfall requirements	>10 inches R+I AND pH >6.2	3 months	
	<10 inches R+I OR pH <6.2	15 months	3 months

Non-Clearfield Wheat Rotational Interval based on pH and Moisture		
Washington and selected counties in Idaho* and Oregon**		
pH and Rainfall requirements	>16 inches R+I AND pH >6.2	3 months
	<16 inches R+I OR pH <6.2	15 months
* Selected counties in Idaho - Benewah, Bonner, Boundary, Clearwater, Idaho, Kootenai, Latah, Lewis, Nez Perce, and Shoshone		
** Selected counties in Oregon - All but Malheur		

When taking soil samples to determine soil pH, use a grid sampling technique, sampling to a depth of 3 to 4 inches.

R+I = Rainfall and overhead irrigation from the time of **Varisto** application up until time of barley, potato, or non-**Clearfield** wheat planting. Does not include furrow or flood irrigation.

If the rainfall or pH requirements are not fully met, and barley or non-**Clearfield** wheat is planted before the specified rotation interval, injury may be reduced by tillage, such as deep disking (greater than 6-inches deep) after crop harvest but before November 1.

The possibility of injury to barley or non-**Clearfield** wheat planted the next season increases **if less than normal precipitation occurs from the time of application to planting and/or within the first two months after application of Varisto.**

Furrow-irrigated and Flood-irrigated Crops

Following harvest of furrow-irrigated or flood-irrigated crops, thoroughly mix soil by plowing or deep disking to a minimum of 8 inches to minimize the potential for herbicide carryover to the following crop.

Failure to irrigate every furrow can increase rotational crop injury potential.

Use of **Varisto** 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.

CROP INJURY PRECAUTIONS

In the event of a crop loss due to weather, **Clearfield** corn, **Clearfield** lentil, **Clearfield** rice, dry beans, dry peas, lima bean (succulent), pea (English), snap bean, or soybean can be replanted. **DO NOT** make an additional application of **Varisto**.

Application of products containing chlorimuron ethyl (**Canopy® herbicide**), metsulfuron-methyl (**Harmony® Extra herbicide**), imazamox (**Beyond® herbicide, Raptor® herbicide**), imazaquin (**Scepter® 70 DG herbicide**), or imazethapyr (**Pursuit® herbicide, Pursuit® Plus EC herbicide**) the same year as **Varisto** may increase the risk of injury to sensitive rotational crops. Consult all pertinent labels for use of these products in combinations.

If arid conditions occur during the year of application, rotational crop injury may occur.

Conditions of Sale and Warranty

The **Directions For Use** of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and must be followed carefully. However, it is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or use of the product in a manner inconsistent with its labeling, all of which are beyond the control of BASF CORPORATION ("BASF") or the Seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

BASF warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes referred to in the **Directions For Use**, subject to the inherent risks, referred to above.

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1108

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Uses with Other Products (Tank Mixes)

If this product is used in combination with any other product except as specifically instructed in writing by BASF, then to the extent consistent with applicable law, BASF shall have no liability for any loss, damage or injury arising out of its use in any such combination not so specifically specified. 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.

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