

EPA Reg. No. 279-3337	EPA Est. No. 279-IL-1
Active Ingredients:	By Wt.
Carfentrazone-ethyl*	3.53%
Sulfentrazone**	31.77%
Other Ingredients:	<u>64.70%</u>
Total:	100.0%

<sup>\*</sup>SPARTAN CHARGE Herbicide contains 0.35 pounds per US gallon of the active ingredient Carfentrazone-ethyl.

# **KEEP OUT OF REACH OF CHILDREN**

# **CAUTION**

## **FIRST AID**

If in Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

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 the poison control center or doctor. Do not give anything by mouth to an unconscious person.

## **HOTLINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

SPARTAN CHARGE HERBICIDE IS FORMULATED AND PACKAGED IN USA.

## Sold by



Net Contents: 2.5 Gallons

<sup>\*\*</sup> SPARTAN CHARGE Herbicide contains 3.15 pounds per US gallon of the active ingredient Sulfentrazone.

# PRECAUTIONARY STATEMENTS Hazards to Humans and Domestic Animals

#### **CAUTION**

Causes moderate eye irritation. Harmful if inhaled, swallowed, or absorbed through skin. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing.

## Personal Protective Equipment (PPE)

Applicators, mixers, loaders, and other pesticide handlers must wear: protective eyewear (goggles or face shield), long-sleeved shirt and long pants, chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride, and shoes plus socks.

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

## **User Safety Recommendations:**

Users should:

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

## **Environmental Hazards**

**NON-TARGET ORGANISM ADVISORY STATEMENT:** This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

**Fish Advisory Statement:** This product may be hazardous to aquatic organisms, particularly in clear, shallow water bodies that are adjacent to treated areas. Transport to water by runoff or spray drift of this product in areas where surface water is present, or intertidal areas below the mean high water mark, should be avoided. Do not contaminate water when disposing of equipment wash water or rinsate. This pesticide is toxic to algae, marine/estuarine invertebrates, and moderately toxic to fish. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff may be hazardous to terrestrial and aquatic plants in neighboring areas. Do not contaminate water when disposing of equipment wash waters or rinsate.

#### **Groundwater Advisory**

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

Do not use on coarse soils classified as sand which have less than 1% organic matter.

## **Surface Water Advisory**

This product can contaminate surface water through spray drift. Under some conditions, this product may also have a high potential for runoff into surface water (primarily via dissolution in runoff water) for several to many months post-application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlying extremely shallow groundwater, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas overlying tile drainage systems that drain to surface waters.

## Physical/Chemical Hazards

Combustible. Do not use or store near heat or open flame.

## **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Read all Directions for Use carefully before applying. Only use for sites, pests, and application methods specified on this labeling.

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.

## USE RESTRICTIONS

Do not apply more than the allowed amount of Spartan Charge Herbicide per acre per twelve-month period as stated in the Maximum Use Rate Table. The twelve-month period is considered to begin upon the initial Spartan Charge Herbicide application.

Endangered Species: It is a Federal offense to use any pesticide in a manner that results in the death of an endangered species. Use of this product may pose a hazard to endangered or threatened species. When using this product, you must follow the measures contained in the Endangered Species Protection Bulletin for the county in which you are applying the product. To obtain Bulletins, no more than six months before using this product, consult http://www.epa.gov/espp/ or call 1-800-447-3813. You must use the Bulletin valid for the month in which you will apply the product.

# 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 12 hours.

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 over long-sleeved shirt and long pants,
- · Chemical resistant gloves made of any waterproof material such as polyethylene or polyvinyl chloride,
- and shoes plus socks.

## WEED RESISTANCE MANAGEMENT

Spartan Charge Herbicide, which contains the active ingredients Carfentrazone and Sulfentrazone is a group 14 herbicide based on the mode of action classification system of the Weed Science Society of America. Proactively implementing diversified weed control strategies to minimize selection for weed populations resistant to one or more herbicides is a best practice. A diversified weed management program may include the use of multiple herbicides with different sites of action and overlapping weed spectrum with or without tillage operations and/or other cultural practices. Research has demonstrated that using the labeled rate and directions for use is important to delay the selection for resistance.

The continued effectiveness of this product depends on the successful implementation of a weed resistance management program. To aid in the prevention of developing weeds resistant to this product, users should:

- Scout fields before application for weeds for identification of species and sizes.
- Start with a clean field, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small (less than 4 inches).
- Apply full rates of Spartan Charge Herbicide for the most difficult to control weed in the field at the specified time (correct weed size) to minimize weed escapes.
- Scout fields after application to detect any poor performance or likely resistance in weeds.
- Control weed escapes before they reproduce by seed or proliferate vegetatively.
- Report any incidence of non-performance of this product against a particular weed to your local retailer or county extension agent.
- Contact your crop advisor or extension agent to find out if suspected resistant weeds to these MOAs have been found in your region. Do not assume that each listed weed is being controlled by multiple sites of action. Products with multiple active ingredients are intended to broaden the spectrum of weeds that are controlled. Some weeds may be controlled by only one of the active ingredient in this product.
- If resistance is suspected, treat weed escapes with an herbicide having a site of action other than Group 14 and/or use nonchemical methods to remove escapes, as practical, with the goal of preventing further seed production.
- Suspected herbicide-resistant weeds may be identified by these indicators:
- Failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds:
- A spreading patch of non-controlled plants of a particular weed species; and
- Surviving plants mixed with controlled individuals of the same species.

Additionally, users should follow as many of the following herbicide resistance management practices as is practical:

- Use a broad spectrum soil-applied herbicide with other sites of action as a foundation in a weed control program.
- Utilize sequential applications of herbicides with alternative sites of action.
- Rotate the use of this product with non-Group 14 herbicides.
- Avoid making more than two applications of Spartan Charge Herbicide and any other Group 14 herbicides within a single growing season unless mixed with an herbicide with a different site of action with an overlapping spectrum for the difficult-to- control weeds.
- Incorporate non-chemical weed control practices, such as mechanical cultivation, crop rotation, cover crops and weed-free crop seeds, as part of an integrated weed control program.
- Use good agronomic principles that enhance crop development and crop competitiveness.
- Thoroughly clean plant residues from equipment before leaving fields suspected to contain resistant weeds.
- Manage weeds in and around fields, during and after harvest to reduce weed seed production.

## PRODUCT INFORMATION

SPARTAN CHARGE HERBICIDE is a selective herbicide that provides postemergent contact and soil residual weed control. SPARTAN CHARGE HERBICIDE may be applied as a burndown prior to planting, early preplant, or as a preemergent application before or after weed emergence for control of susceptible broadleaf weeds. SPARTAN CHARGE HERBICIDE is a 3.5 pound per gallon suspoemulsion containing the active ingredients carfentrazone- ethyl and sulfentrazone. Applications of SPARTAN CHARGE HERBICIDE must be made before crop seed germination to prevent injury to the emerging crop seedlings. When applications after planting are delayed, injury may occur if seeds are germinating or if they are located near the soil surface.

Observe the most restrictive of all instructions, crop restrictions, mixing directions, application precautions, replanting directions, rotational crop guidelines and other label information of each product when tank mixing with SPARTAN CHARGE HERBICIDE. In addition to application information, refer to the specific directions of use for a particular crop/use pattern as set forth below.

#### **Proper Handling Instructions**

This product must not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Do not apply this product through any type of irrigation system. Do not use flood irrigation to apply or incorporate this product.

This product must be used in a manner which will prevent back siphoning into wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

## PRODUCT APPLICATION INSTRUCTIONS

SPARTAN CHARGE HERBICIDE is to be mixed with water, liquid fertilizer, or mixtures of water and liquid fertilizer and applied in fallow systems or as a preplant burndown and/or preemergence herbicide to labeled crops. SPARTAN CHARGE HERBICIDE provides postemergent contact and soil residual control of susceptible weed species.

Emerged, susceptible broadleaf weeds are easiest to control when they are small (less than 3 inches tall) and actively growing. Thorough coverage is essential for control of small susceptible broadleaf weeds. If thorough coverage is not achieved postemergent weed control will be poor. Always use the higher application rate of this product, for the appropriate soil texture and organic matter, when weed growth is dense or heavy, or when weeds are growing in an undisturbed or non-cultivated area. Reduced weed control may occur if weeds are experiencing drought stress, disease or insect damage, or when weeds are thickly covered with dust. For control of weeds not listed on this label SPARTAN CHARGE HERBICIDE may be tank-mixed with other herbicides such as glyphosate, paraquat and glufosinate. Read and follow all manufacturers' label directions for the companion herbicide(s) and follow the most restrictive instructions for use. The use of a quality spray adjuvant is required for optimum control of emerged weeds. Refer to the individual crop sections of this label for specific adjuvant type and use rates.

The residual activity of SPARTAN CHARGE HERBICIDE applications requires adequate moisture for herbicidal activation. The amount of residual activity is dependent on several factors. These factors include, but are not limited to, existing soil moisture at application, soil type, organic matter, and tilth. Where irrigation is not available and rainfall has not provided activation, particularly for surface applications of SPARTAN CHARGE HERBICIDE, a shallow incorporation (less than 2") is recommended for destruction of any existing weeds and to incorporate SPARTAN CHARGE HERBICIDE. Herbicide incorporation will initiate the process of activation with existing soil moisture. In circumstances where rainfall has not occurred and/or irrigation is not possible, alternative or additional weed management practices may be required.

Under normal growing conditions, SPARTAN CHARGE HERBICIDE exhibits excellent crop safety. Soil applications of SPARTAN CHARGE must be made before crop seed germination to prevent injury to the emerging crop seedlings. SPARTAN CHARGE HERBICIDE applied after crop emergence will cause severe injury to the crop. Poor growing conditions, such as excessive moisture, cool temperatures, and soil compaction or the presence of various pathogens may impact seedling or plant vigor. Under these conditions, the active ingredients in SPARTAN CHARGE HERBICIDE can contribute to crop response. Refer to the specific directions of use for a particular crop/use pattern as set forth below for additional information.

# ENVIRONMENTAL AND SOIL FACTORS INFLUENCING SPARTAN CHARGE HERBICIDE APPLICATIONS

Do not apply to soils classified as sand with less than 1% organic matter.

The user is required to read and follow the specific SPARTAN CHARGE HERBICIDE use directions and restrictions for each crop as defined in subsequent sections of this label. The user is cautioned that some crops and weeds respond differently to SPARTAN CHARGE HERBICIDE. This response is governed by the SPARTAN CHARGE HERBICIDE application rate, various soil factors and inherent crop sensitivity. See individual crop use sections for specific directions on the use of SPARTAN CHARGE HERBICIDE for optimum weed control and crop safety results in each crop.

#### INFLUENCE OF CLAY, SOIL TYPE, AND PH ON SPARTAN CHARGE HERBICIDE USE RATES AND CROP RESPONSE

Following an application of SPARTAN CHARGE HERBICIDE to soil, germinating seeds and seedlings take up SPARTAN CHARGE HERBICIDE from the soil solution. The amount of SPARTAN CHARGE HERBICIDE in the soil solution, and available for weed uptake, is determined primarily by soil type, organic matter, and soil ph. SPARTAN CHARGE HERBICIDE adsorbs to the clay and organic matter fractions of soils; effectively limiting the amount of active ingredient immediately available to control weeds. Soils typically increase in clay content through the series from coarse to fine as noted in the following Soil Classification Chart (Table 1).

## Table 1. SOIL CLASSIFICATION CHART

COARSE	MEDIUM	FINE
Sand	Sandy clay loam	Silty clay loam
Loamy sand	Sandy clay	Silty clay
Sandy loam	Loam	Clay loam
	Silt loam	Clay
	Silt	

Soil organic matter content can vary widely and independently of soil type and requires an accurate analysis of representative soil samples to determine its content.

## Do not use this product on coarse soils classified as sand which have less than 1% organic matter.

Soil pH also exerts a dramatic affect on SPARTAN CHARGE HERBICIDE availability in the soil solution. As soil pH increases, SPARTAN CHARGE HERBICIDE availability increases. Accurate soil pH information will require an accurate analysis of representative soil samples.

The total amount of SPARTAN CHARGE HERBICIDE available, in any given soil, is determined by the interaction of soil type (clay content), % organic matter, and pH. The application timing (relative to the emergence of the crop and weeds) and amount of rainfall and/or irrigation received will ultimately determine, in conjunction with the soil parameters and pH, the amount of SPARTAN CHARGE HERBICIDE in soil solution

Irrigation with highly alkaline water (high pH) following a SPARTAN CHARGE HERBICIDE soil application can also significantly increase the amount of SPARTAN CHARGE HERBICIDE available in the soil solution. Irrigation with water having a pH greater than 7.5 could result in adverse crop response. This response will ultimately depend on initial SPARTAN CHARGE HERBICIDE application rate, timing, amount and pH of irrigation water and sensitivity of the crop and its growth stage when irrigated. The risk of adverse crop response will lessen with the advance in growth stage among most crops.

The following Crop Specific Use Directions have been designed with specific SPARTAN CHARGE HERBICIDE instructions for each crop based on the soil type, soil organic matter, and soil pH interactions described above. The user is cautioned that crop tolerance and weed control performance are based on strict adherence to these use directions.

## MIXING AND LOADING INSTRUCTIONS

Water or liquid fertilizer solutions may be used as the carrier for SPARTAN CHARGE HERBICIDE when applied alone or in tank mixtures with other registered herbicides. Conduct a jar test to determine the compatibility of SPARTAN CHARGE HERBICIDE and the fertilizer solution. When mixing with fertilizer solutions it is important to premix SPARTAN CHARGE HERBICIDE in clear water. See directions for applying SPARTAN CHARGE HERBICIDE alone with liquid fertilizer in Application Information.

A crop oil concentrate, methylated seed oil, nonionic surfactant (NIS) wetting agent labeled, or other equivalent adjuvant labeled for use with herbicides is required for optimum control of emerged weeds. Read and follow all applicable use directions, precautions and restrictions on the surfactant label.

#### **SPARTAN CHARGE HERBICIDE Applied Alone**

Select the proper SPARTAN CHARGE HERBICIDE application rate from the following tables in the crop section of this label. Fill the spray tank with approximately one-half of the volume of water needed for the acreage being treated. With agitator operating, add the required amount of SPARTAN CHARGE HERBICIDE for acreage being treated by opening the bottle(s) and measuring directly into the spray tank. Allow the product to fully disperse. Complete the addition of spray water. Maintain agitation during filling, mixing and application. Apply the SPARTAN CHARGE HERBICIDE spray mixture immediately after mixing.

Do not store spray mixture.

Do not prepare spray mixtures in nurse tanks.

### SPARTAN CHARGE HERBICIDE Applied in Tank Mix Combination

Select the proper SPARTAN CHARGE HERBICIDE application rate from TIMING AND METHOD OF APPLICATION section of label. Read and follow the most restrictive of all applicable use directions, precautions and restrictions on the respective tank mix product labels. To ensure product compatibility, a jar test should be conducted before large volume mixing (see MIXTURE COMPATIBILITY TESTING chart below). Provided the jar test indicates the mixture is compatible, prepare the tank mixture as follows.

Fill the spray tank with approximately one-half of the volume of water needed for the acreage being treated. With agitator operating, add the required amount of SPARTAN CHARGE HERBICIDE for the acreage being treated by opening the bottle(s) and measuring directly into the spray tank. Allow the product to fully disperse. If more than one product is to be used, add each separately using the following sequence: dry formulations (e.g., wettable powders, dry flowables) first, SPARTAN CHARGE HERBICIDE and other liquid suspensions (e.g., flowables) next and finally liquids (e.g., EC's). Allow time for complete mixing and dispersion after each addition, adding water as necessary. Complete the addition of spray water. Maintain agitation during filling, mixing and application. Use SPARTAN CHARGE HERBICIDE tank mixtures immediately after mixing.

Do not store tank mixtures.

Do not prepare spray mixtures in nurse tanks.

#### SPARTAN CHARGE HERBICIDE Applied Alone with Liquid Fertilizer

When adding SPARTAN CHARGE HERBICIDE to a liquid fertilizer carrier, premix SPARTAN CHARGE HERBICIDE in clear water before adding to fertilizer solution. Adding SPARTAN CHARGE HERBICIDE to fertilizer mixtures without first mixing with water can result in incompatibility.

Fill the spray tank one-half full with fertilizer solution. With agitator operating, add the SPARTAN CHARGE HERBICIDE slurry to the spray tank. Use a minimum of one gallon of water for each container of SPARTAN CHARGE HERBICIDE. Then add slurry to the spray tank through a 20-35 mesh screen. Rinse container used for pre-mixing and add rinsate to the spray tank. Complete filling the sprayer tank with fertilizer. Maintain agitation during filling, mixing and application. Use SPARTAN CHARGE HERBICIDE spray mixture immediately after mixing.

Do not store mixture.

Do not prepare spray mixtures in nurse tanks.

#### Jar Testing Fertilizer Spray Mixtures

Applications of SPARTAN CHARGE HERBICIDE alone, or with recommended tank mixtures, in conjunction with clear liquid fertilizer solutions (28-32% nitrogen only) may be used unless use directions specifically state otherwise. Test small quantities for compatibility by the following procedure before mixing in full spray tank quantities.

- 1) Add 1 pint of fertilizer solution in a quart jar.
- 2) Add the appropriate amount of herbicide based on the MIXTURE COMPATIBILITY table below. If more than one product is to be used, add each separately using the following sequence: dry formulations (e.g., wettable powders, dry flowables) first, liquid suspensions (e.g., flowables) next and finally liquids (e.g., EC's).
- 3) Close jar and shake well.
- 4) Watch mixture for several seconds, again after 5 minutes and again after 30 minutes. If herbicide/fertilizer combination remains mixed or can be remixed readily (i.e., does not permanently separate, foam, gel or become lumpy), the mixture is compatible and can be mixed in full volumes and sprayed. If the mixture is compatible, prepare spray by adding fertilizer solution to the tank first, and then follow directions noted below.

#### MIXTURE COMPATIBILITY TESTING

Herbicide Type	Herbicide Field Use Rate	Amount Herbicide Added Per Pint
Wettable Powder or Dry Flowable	0.5 pound	0.75 teaspoon
Γ	1.0 pound	1.50 teaspoons
Γ	2.0 pounds	3.00 teaspoons
Γ	3.0 pounds	4.50 teaspoons
Emulsified Concentrates Liquid Flowables	1.0 pint	0.5 teaspoon
	1.0 quart	1.0 teaspoon
Γ	2.0 quarts	2.0 teaspoons
Γ	3.0 quarts	3.0 teaspoons

<sup>\*</sup>Based on a spray volume of 25 gallons per acre. For lower or higher spray volumes, adjust fluid fertilizer quantity accordingly.

#### **Adjuvant Requirements**

The use of methylated seed oil (MSO) or a crop oil concentrate (COC) adjuvant, labeled for use with herbicides, is required for optimum control of emerged weeds. A nonionic surfactant adjuvant and water conditioning agent is recommended when SPARTAN CHARGE HERBICIDE is tank-mixed with glyphosate. Read and follow all applicable use directions, precautions and restrictions on the surfactant label.

## APPLICATION INFORMATION

## **Ground Application**

Use a boom and/or nozzle sprayer equipped with the appropriate nozzles and screens and adjusted to provide optimum spray distribution and coverage at the appropriate operating pressures. Use nozzles that produce minimal amounts of fine spray droplets. Do not exceed 30 psi spray pressure unless otherwise required by the manufacturer of drift reducing nozzles. Apply a minimum of 10 gallons of finished spray per acre. When tank mixed with a contact burndown herbicide, ground applicators must use a minimum spray volume of 15 gallons per acre. Use higher spray volumes when there is a dense weed population. Thorough coverage is essential for control of susceptible broadleaf weeds. Be aware that overlaps and slower ground speeds while starting, stopping, or turning while spraying may result in excessive application and subsequent crop response.

Continuous agitation is required until all spray mixture has been applied. Avoid swath overlaps. Shut off spray booms while turning, slowing or stopping, as over application may result. Do not allow SPARTAN CHARGE HERBICIDE spray mixtures to sit overnight as settling of product and difficulty of re- suspending may occur.

To avoid injury to sensitive crops, spray equipment used for SPARTAN CHARGE HERBICIDE applications must be drained and thoroughly cleaned with water plus ammonia before being used to apply other products. See Spray Clean-out Section.

**Avoid all direct, and/or indirect spray contact with non-target plants.** Do not apply near desirable vegetation. Allow adequate distance between target area and desirable plants to minimize exposure.

Do not apply when wind speed favors drift beyond the area of treatment.

## **Runoff and Wind Erosion Precautions**

Do not apply under conditions which favor runoff or wind erosion of soil containing SPARTAN CHARGE HERBICIDE to non- target areas.

#### To prevent off-site movement due to runoff or wind erosion:

- Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, allow the soil surface
  to be settled by rainfall or irrigation.
- · Do not apply to impervious substrates such as paved or highly compacted surfaces or frozen or snow covered ground.
- · Do not apply to soils when saturated with water.
- Do not use tail water from the first flood or furrow irrigation of treated fields to treat non target crops unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.

## **SPRAY DRIFT**

### **Aerial Applications:**

- Aerial application is allowed only when environmental conditions prohibit ground application. Apply sufficient spray volume to achieve
  adequate coverage. When this product is allowed to be applied by air, applicator must use a minimum finished spray volume of 5 gallons
  per acre.
- For aerial applications, the distance of the outer most nozzles on the boom must not exceed 75% of the length of the wingspan or 90% of rotor diameter. To further reduce drift, use on half of the length of the wingspan or rotor diameter at the edge of the field.
- Applicators must only spray when wind speed is 10 miles per hour or less.
- Applicators must not spray during temperature inversions.
- For aerial applications, the release height must be no higher than 10 feet from the top of the crop canopy, unless a greater application height is required for pilot safety.
- For aerial applications, select nozzle and pressure that produce medium to coarse spray droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard 572.1

#### **Ground Boom Applications:**

- For ground boom applications, apply with the nozzle height no more than 4 feet above the ground or crop canopy. For all other ground applications, the nozzle must be no more than 4 feet from the target application site.
- For ground applications, select nozzle and pressure that produce medium to coarse spray droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard 572.1.

## SPRAY DRIFT MANAGEMENT

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

SPARTAN CHARGE HERBICIDE is a contact herbicide. Avoid any drift conditions that would allow the product to contact desirable vegetation. SPARTAN CHARGE HERBICIDE is not volatile; however, mist from spray drift may cause injury to sensitive plants.

The interaction of equipment and weather related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target movement from applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses, or to applications of dry materials. Where States have more stringent regulations, they must be observed.

#### Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The optimum drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift when applications are made improperly, or under unfavorable environmental conditions (See Wind, Temperature and Humidity, and Temperature Inversions).

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

For all non-aerial applications, wind speed must be measured adjacent to the application site, on the upwind side, immediately prior to application.

## **Controlling Spray Droplet Size**

**Volume** – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows usually produce larger droplets. **Pressure** – Do not use pressures greater than that specified by the nozzle manufacturer. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

Number of Nozzles - Use the minimum number of nozzles that provide uniform coverage.

**Nozzle Orientation** – For aerial application, orient nozzles so that the spray is released parallel to the airstream. A parallel orientation results in larger droplets than other orientations and reduces air turbulence and the production of small droplets. Significant deflection from horizontal will reduce droplet size and increase drift potential.

**Nozzle Type** – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles. For aerial applications, solid stream nozzles oriented straight back produce the largest droplets and potentially the least drift.

**Boom Length** – For some aerial use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

**Application Height** – Making applications at the lowest height that is safe reduces exposure of spray droplets to evaporation and wind movement. Aerial applications should not be made at a height greater than 10 feet above the top of the target plants unless a greater height is required for aircraft safety.

Swath Adjustment - Swath adjustment distance must increase, with increasing drift potential (higher wind, smaller drops, etc.)

**Wind** – Drift potential is lowest between winds speeds of 3 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Applications shall be avoided below 3 mph due to variable wind direction and high inversion potential. Do not apply SPARTAN CHARGE HERBICIDE when wind speed exceeds 10 mph. Note: Local terrain can influence wind patterns. Every applicator shall be familiar with local wind patterns and how they affect spray drift.

**Temperature and Humidity -** When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions – Do not apply SPARTAN CHARGE HERBICIDE during a temperature inversions because the drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the following morning. Their presence can be indicated by ground fog. However, if fog is not present, inversions can also be identified 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.

Shielded Sprayers - Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

Sensitive Areas – SPARTAN CHARGE HERBICIDE shall only be applied when the wind is blowing away from adjacent sensitive areas (e.g. residential areas, bodies of water, known habitats for threatened or endangered species and non-target crops).

Off-Target Movement of SPARTAN CHARGE HERBICIDE – Drift of dilute spray mixtures containing SPARTAN CHARGE HERBICIDE must be prevented. Observation of the preceding environmental conditions, correct application equipment design, calibration and application practices will significantly diminish the risk of of-target spray drift. SPARTAN CHARGE HERBICIDE can cause significant symptomology by drift on to sensitive crops and other plants. This symptomology may manifest initially as discreet, localized spots where contact by SPARTAN CHARGE HERBICIDE drift mixtures. Depending on concentration of the spray solution and droplet size (effectively determining the concentration of SPARTAN CHARGE HERBICIDE) and also depending on the inherent sensitivity of the plants involved, these spots or lesions may not coalesce. These effects will usually not have lasting effects on plant growth, but will likely reduce the value of affected fruit of foliage where grade or quality is associated with appearance. In severe drift instances with particularly sensitive crops, defoliation of affected foliage could result. Failure to follow these guidelines and environmental prohibitions that then result in off-target movement or drift of SPARTAN CHARGE HERBICIDE on to unintended crops or plants, irrespective of severity, constitutes misapplication of this product. FMC accepts no responsibility or liability for potential crop effects that may result from such misapplication of SPARTAN CHARGE HERBICIDE.

## SPRAY EQUIPMENT CLEAN-OUT

After spraying SPARTAN CHARGE HERBICIDE and before using sprayer equipment for any other applications, the sprayer must be thoroughly cleaned using the following procedure.

- 1. Drain sprayer tank, hoses, and spray boom and thoroughly rinse the inside of the sprayer tank with clean water to remove sediment and residues. Thoroughly flush sprayer hoses, boom and nozzles with clean water.
- 2. Fill the tank 1/2 full with clean water, and add appropriate detergent or ammonia (follow manufacturer's directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.
- 3. Convenient and thorough cleaning of the sprayer can be achieved if the cleaning solution is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.
- 4. Before using the sprayer, drain the spray system. Rinse the tank with clean water and flush through the hoses, boom, and nozzles. Remove and clean spray tips and screens separately with the detergent or ammonia solution.
- 5. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State and local regulations and guidelines. Do not drain or flush equipment on or near desirable trees or plants.

Do not contaminate any body of water including irrigation water that may be used on other crops.

Should small quantities of SPARTAN CHARGE HERBICIDE remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. FMC accepts no liability for any effects due to inadequately cleaned equipment.

# MAXIMUM ALLOWABLE SPARTAN CHARGE HERBICIDE USE PER ACRE PER 12 MONTH PERIOD\*

Refer to the crop section of this label for specific product use directions.

Сгор	Fluid Ounces SPARTAN CHARGE HERBICIDE Per Acre	Pounds Active SPARTAN CHARGE HERBICIDE** Per Acre	
Apples	15.2	0.41	
Bushberries	15.2	0.41	
Blueberries	15.2	0.41	
Caneberries	15.2	0.41	
Cabbage (transplant only)	15.2	0.41	
Dry shelled peas	10.2	0.28	
Fallow	10.2	0.28	
Flax	10.2	0.28	
Grapes	15.2	0.41	
Horseradish	10.2	0.28	
Lemons	15.2	0.41	
Lima beans, succulent (Tennessee only)***	7.6	0.21	
Oranges	15.2	0.41	
Peanut	10.2	0.28	
Pistachios	15.2	0.41	
Sod production	15.2	0.41	
Soybeans	8.5	0.23	
Sugarcane	15.2	0.41	
Sunflowers	10.2	0.28	
Tobacco	15.2	0.41	
Walnuts (black and English)	15.2	0.41	

<sup>\*</sup>The total allowed usage per twelve-month period includes all applications made to the field per twelve-month interval. This includes fallow treatments, burndown treatments, planting time and all in-season treatments. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE HERBICIDE application.

# **RATE CONVERSION CHART**

SPARTAN CHAI	SPARTAN CHARGE HERBICIDE		CARFENTRAZONE-ETHYL		RAZONE
Product fl oz/A	lb ai*	Product fl oz/A	lb ai	Product fl oz/A	lb ai
3.75	0.10	0.65	0.01	2.9	0.09
5.75	0.15	1.0	0.015	4.5	0.14
8.50	0.23	1.5	0.02	6.7	0.21
10.20	0.28	1.8	0.03	8.0	0.25
15.25	0.41	2.7	0.04	12.0	0.37

<sup>\*</sup> Total pounds active of sulfentrazone + carfentrazone-ethyl

<sup>\*\*</sup> Based on total active carfentrazone-ethyl and sulfentrazone

<sup>\*\*\*</sup> The maximum seasonal rate for "legume vegetables (crop group 6) except soybean" is 0.096 lb ai/A.

## **CROP ROTATIONAL INTERVALS**

Shown below are the minimum intervals in months from the time of SPARTAN CHARGE HERBICIDE application until SPARTAN CHARGE HERBICIDE treated soil may be replanted with the crops listed. When SPARTAN CHARGE HERBICIDE is tank mixed with other herbicide(s), refer to all those labels for re-cropping instructions, following the intervals that are the most restrictive. For crops not listed, the interval is 12 months in addition to a successful field bioassay.

The field bioassay is a test strip of the intended crop planted across the previously treated field and grown to maturity. The test strip should include low spots, knolls, and variable pH and soil types. If crop responses are not observed, the crop may be planted the following year.

## **CROP ROTATION INTERVALS\***

Alfalfa         12           Almonds         Anytime           Apples         Anytime           Barley         4           Bushberries         Anytime           Blueberries         Anytime           Cabbage (transplant only)         Anytime           Canneberry         Anytime           Cannola, Crambe         24           Corn, field         Anytime           Corn, pop         Anytime           Corn, seed         6           Corn, sweet         12           Cotton****         18 or 12***           Dry Shell Peas         Anytime           Dry Shell Beans         Anytime           Flax         Anytime           Flax         Anytime           Horseradish         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peappermint         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes****         Anytime           Sorghum         10**           Soybeans	CROP	INTERVAL (Months)	
Apples         Anytime           Barley         4           Bushberries         Anytime           Blueberries         Anytime           Cabbage (transplant only)         Anytime           Canneberry         Anytime           Canneberry         Anytime           Canola, Crambe         24           Corn, field         Anytime           Corn, pop         Anytime           Corn, seed         6           Corn, sweet         12           Cotton*****         18 or 12***           Dry Shell Peas         Anytime           Dry Shell Beans         Anytime           Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peapermint         Anytime           Pistachio         Anytime           Potatoes****         Anytime           Potatoes*****         Anytime           Sorghum         10**           Soybeans         Anytime           Sugar Be	Alfalfa	12	
Barley         4           Bushberries         Anytime           Blueberries         Anytime           Cabbage (transplant only)         Anytime           Canneberry         Anytime           Canola, Crambe         24           Corn, field         Anytime           Corn, pop         Anytime           Corn, seed         6           Corn, swet         12           Cotton****         18 or 12***           Dry Shell Peas         Anytime           Dry Shell Beans         Anytime           Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Peppermint         Anytime           Potatoes****         Anytime           Stories         Anytime           Sorghum         10**           Soybeans         Anytime           Sugarcane         Anytime           Sugarcane </td <td>Almonds</td> <td>Anytime</td>	Almonds	Anytime	
Barley         4           Bushberries         Anytime           Blueberries         Anytime           Cabbage (transplant only)         Anytime           Canneberry         Anytime           Canola, Crambe         24           Corn, field         Anytime           Corn, pop         Anytime           Corn, seed         6           Corn, swet         12           Cotton****         18 or 12***           Dry Shell Peas         Anytime           Dry Shell Beans         Anytime           Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Peppermint         Anytime           Potatoes****         Anytime           Stories         Anytime           Sorghum         10**           Soybeans         Anytime           Sugarcane         Anytime           Sugarcane </td <td>Apples</td> <td>Anytime</td>	Apples	Anytime	
Bushberries         Anytime           Blueberries         Anytime           Cabbage (transplant only)         Anytime           Canneberry         Anytime           Canola, Crambe         24           Corn, field         Anytime           Corn, pop         Anytime           Corn, seed         6           Corn, sweet         12           Cotton****         18 or 12***           Dry Shell Peas         Anytime           Dry Shell Beans         Anytime           Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Peppermint         Anytime           Potatoes****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Sugarcane         Anytime           Sugarcane         Anytime           Sugarcane		4	
Cabbage (transplant only)         Anytime           Canneberry         Anytime           Canola, Crambe         24           Corn, field         Anytime           Corn, pop         Anytime           Corn, seed         6           Corn, sweet         12           Cotton****         18 or 12***           Dry Shell Peas         Anytime           Dry Shell Beans         Anytime           Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes****         Anytime           Rice         10           Rye         4           Sorghum         10**           Sopheans         Anytime           Sugar Beets         36 or 24†           Sugar Cane         Anytime           Sugar Cane         Anytime           Sweet Potatoes         12		Anytime	
Canneberry         Anytime           Canola, Crambe         24           Corn, field         Anytime           Corn, pop         Anytime           Corn, seed         6           Corn, sweet         12           Cotton****         18 or 12***           Dry Shell Peas         Anytime           Dry Shell Beans         Anytime           Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sweet Potatoes         12	Blueberries	Anytime	
Canneberry         Anytime           Canola, Crambe         24           Corn, field         Anytime           Corn, pop         Anytime           Corn, seed         6           Corn, sweet         12           Cotton****         18 or 12***           Dry Shell Peas         Anytime           Dry Shell Beans         Anytime           Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sweet Potatoes         12	Cabbage (transplant only)	Anytime	
Canola, Crambe         24           Corn, field         Anytime           Corn, pop         Anytime           Corn, seed         6           Corn, sweet         12           Cotton****         18 or 12***           Dry Shell Peas         Anytime           Dry Shell Beans         Anytime           Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermit         Anytime           Peppermit         Anytime           Potatoes****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sweet Potatoes         12			
Corn, pop         Anytime           Corn, seed         6           Corn, sweet         12           Cotton****         18 or 12***           Dry Shell Peas         Anytime           Dry Shell Beans         Anytime           Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sweet Potatoes         12			
Corn, pop         Anytime           Corn, seed         6           Corn, sweet         12           Cotton****         18 or 12***           Dry Shell Peas         Anytime           Dry Shell Beans         Anytime           Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sweet Potatoes         12	Corn, field	Anytime	
Corn, seed         6           Corn, sweet         12           Cotton*****         18 or 12****           Dry Shell Peas         Anytime           Dry Shell Beans         Anytime           Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pestachio         Anytime           Potatoes*****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sweet Potatoes         12			
Corn, sweet         12           Cotton****         18 or 12***           Dry Shell Peas         Anytime           Dry Shell Beans         Anytime           Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes*****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sweet Potatoes         12			
Cotton****         18 or 12***           Dry Shell Peas         Anytime           Dry Shell Beans         Anytime           Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes*****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sweet Potatoes         12		12	
Dry Shell Peas         Anytime           Dry Shell Beans         Anytime           Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes*****         Anytime           Rice         10           Rye         4           Sorghum         10***           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sweet Potatoes         12		18 or 12***	
Dry Shell Beans         Anytime           Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes*****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sugar Cane         Anytime           Sweet Potatoes         12	Dry Shell Peas		
Flax         Anytime           Grapes         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sweet Potatoes         12			
Grapes         Anytime           Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sunflowers         Anytime           Sweet Potatoes         12			
Horseradish         Anytime           Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes*****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sweet Potatoes         12	Grapes		
Lemons         Anytime           Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sunflowers         Anytime           Sweet Potatoes         12	Horseradish		
Lima Beans (Tennessee only)         Anytime           Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes*****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sunflowers         Anytime           Sweet Potatoes         12			
Orange         Anytime           Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sunflowers         Anytime           Sweet Potatoes         12	Lima Beans (Tennessee only)		
Peanuts         Anytime           Peppermint         Anytime           Pistachio         Anytime           Potatoes****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sunflowers         Anytime           Sweet Potatoes         12	Orange	Anytime	
Pistachio         Anytime           Potatoes****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sunflowers         Anytime           Sweet Potatoes         12	Peanuts	Anytime	
Potatoes****         Anytime           Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sunflowers         Anytime           Sweet Potatoes         12	Peppermint	Anytime	
Rice         10           Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sunflowers         Anytime           Sweet Potatoes         12	Pistachio	Anytime	
Rye         4           Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sunflowers         Anytime           Sweet Potatoes         12	Potatoes****	Anytime	
Sorghum         10**           Soybeans         Anytime           Spearmint         Anytime           Sugar Beets         36 or 24†           Sugarcane         Anytime           Sunflowers         Anytime           Sweet Potatoes         12	Rice	10	
Soybeans Anytime Spearmint Anytime Sugar Beets 36 or 24† Sugarcane Anytime Sunflowers Anytime Sweet Potatoes 12	Rye	4	
SpearmintAnytimeSugar Beets36 or 24†SugarcaneAnytimeSunflowersAnytimeSweet Potatoes12	Sorghum	10**	
Sugar Beets         36 or 24†           Sugarcane         Anytime           Sunflowers         Anytime           Sweet Potatoes         12	Soybeans	Anytime	
SugarcaneAnytimeSunflowersAnytimeSweet Potatoes12	Spearmint	Anytime	
Sunflowers Anytime Sweet Potatoes 12	Sugar Beets	36 or 24†	
Sweet Potatoes 12	Sugarcane	Anytime	
	Sunflowers	Anytime	
Tohacco	Sweet Potatoes	12	
Tobacco   Anytime	Tobacco	Anytime	
Tomato (Transplanted)  Anytime	Tomato (Transplanted)	Anytime	
Triticale 4	Triticale	4	
Turf Anytime	Turf	Anytime	
Walnut (black & English)  Anytime	Walnut (black & English)	Anytime	
Wheat 4	Wheat		

<sup>\*</sup> For all other crops not listed, the rotation interval is a minimum of 12 months with a successful bioassay.

- Medium and fine soils
- pH <7.2</li>
- Rainfall or irrigation must exceed 15" after application of SPARTAN CHARGE HERBICIDE to rotate to cotton.
- \*\*\*\* for up to 12 months following application to cotton, and potato, the subsequent planted crop may only be a registered crop
- † Sugarbeets can be planted after 24 months with a successful bioassay.

<sup>\*\* 18</sup> month rotation for rates above 10.2 fl oz/A. Crops that have rotational intervals greater than 12 months after a SPARTAN CHARGE HERBICIDE application are the result of crop injury concerns. Only plant after a successful bioassay.

<sup>\*\*\*</sup>Cotton may be planted after 12 months where SPARTAN CHARGE HERBICIDE was applied at rates 8 fl oz/A or less and meets the following conditions:

## REPLANTING INSTRUCTIONS

If the initial planting of labeled crops fails to produce a uniform stand, only labeled crops for SPARTAN CHARGE HERBICIDE or the tank mix partner; whichever is most restrictive, may be replanted. Do not retreat fields with a second application of SPARTAN CHARGE HERBICIDE or other herbicide containing sulfentrazone. When tank mixing with a labeled product, refer to the replant instructions for that product. Do not replant treated fields with any crop at intervals that are inconsistent with the CROP ROTATION INTERVALS on this label. When replanting use minimum soil tillage to preserve the herbicide barrier and achieve maximum weed control.

# POSTEMERGENT WEEDS CONTROLLED

Pre-Plant Burndown (Refer to individual crop sections for preemergent weeds controlled).

Use Restrictions

This product, SPARTAN CHARGE HERBICIDE may only be used in accordance with the Product Application information and the specific crop use directions. When used as directed, SPARTAN CHARGE HERBICIDE will provide postemergent control of the following weeds (less than 3 inches tall) in a conventional till program. For complete no-till postemergence burndown control of the weeds listed and other no-till weeds a tank-mix of SPARTAN CHARGE HERBICIDE and glyphosate or other labeled burndown herbicide is recommended.

Weeds Controlled	SPARTAN CHARGE HERBICIDE use rate fl oz/A (lb ai/A)
Lambsquarters (up to 3 inches tall)	3.75 (0.10)
Morningglory, ivyleaf (up to 3 leaves)	7
Morningglory, pitted (up to 3 leaves)	7
Nightshade, Eastern black	7
Pigweed, redroot	7
Velvetleaf	7
Waterhemp (up to 2 inches tall)	7
All the weeds controlled at 3.75 fl oz/A (0.10 lb ai/A) plus the weeds listed below:	4.75 (0.13)
Cheeseweed	7
Filaree, redstem	7
Flixweed	7
Lambsquarters, common	7
Mallow, common	7
Morningglory, entireleaf	7
Morningglory, ivyleaf	7
Morningglory, pitted	7
Morningglory, scarlet	7
Nightshade, hairy	7
Pennycress, field	7
Pigweed, smooth	7
Sesbania, hemp	7
Smartweed (PA), seedling	7
Tansymustard	7
Waterhemp	7
All the weeds controlled at 4.75 fl oz/A (0.13 lb ai/A) plus the weeds listed below:	6.0 (0.16)
Amaranth, spiny	<b>–</b>
Anoda, spurred	7
Bedstraw, catchweed	<b>-</b>
Buffalobur	<b>-</b>
Carpetweed	<b>-</b>
Cocklebur	<b>-</b>
Copperleaf, hophornbeam	<b>-</b>
Cotton, GMO varieties	7
Cotton, volunteer	$\dashv$
Dayflower	┦
Eclipta	┦
Fiddleneck, coast	$\dashv$
Groundcherry, smooth (seedling)	$\dashv$
Groundcherry, Wright's	$\dashv$
Jimsonweed	$\dashv$
Kochia	$\dashv$
Rocket, London	$\dashv$

Weeds Controlled	SPARTAN CHARGE HERBICIDE use rate fl oz/A (lb ai/A)
All the weeds controlled at 4.75 fl oz/A (0.13 lb ai/A) plus the weeds listed below: (Continued)	6.0 (0.16)
Morningglory, Ivyleaf	
Morningglory, tall	
Nightshade, American black	
Nightshade, black	
Shepherdspurse	
Spiderwort, tropical	
Thistle, Russian	
Wallflower, bushy	
All the weeds controlled at 6.0 fl oz/A (0.16 lb ai/A) plus the weeds listed below:	8.5 (0.23) - 15.2 (0.41)
Amaranth, Palmer (up to 4 inches tall)	]
Ammania, purple	]
Buckwheat, wild	
Burclover	
Filaree, broadleaf	
Filaree, white	
Lettuce, prickly	
Mallow, Venice (up to 2 inches tall)	
Meadowfoam	
Mustard spp.	]
Redmaids	]
Spurry, corn	]
Spurry, clover	

# **CABBAGE (Transplanted Only)**

#### SPARTAN CHARGE HERBICIDE Use Rate Table (Cabbage) Fall or Spring Early Preplant, Preemergence, and Preplant Incorporated Applications **Broadcast Rate** fl oz/A (lb ai/A) SPARTAN CHARGE HERBICIDE Soil Texture % Organic Matter Coarse Medium Fine <1.5 2.9(0.08) - 3.8(0.10) 3.8(0.10) - 5.7(0.16) 3.8(0.10) - 7.6(0.21) 1.5-3.0 3.8(0.10) - 7.6(0.21) 7.6(0.21) - 11.4(0.31) 7.6(0.21) - 11.4(0.31) 7.6(0.21) - 15.2(0.41) >3.0 7.6(0.21) - 11.4(0.31) 7.6(0.21) - 15.2(0.41)

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

## Early Preplant (Fall Application or Spring Application)

SPARTAN CHARGE HERBICIDE may be applied only in the fall or spring preceding the growing season to control weeds prior to or up to the planting or transplanting of cabbage. SPARTAN CHARGE HERBICIDE may be applied in the spring from 60 days prior to planting up to planting time. SPARTAN CHARGE HERBICIDE should be applied to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product into the soil. Do not mechanically incorporate in the fall or spring after application as this may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent SPARTAN CHARGE HERBICIDE runoff from rain or snow that may occur following application.

SPARTAN CHARGE HERBICIDE may be tankmixed with other burndown herbicides to control emerged weeds in the fall or spring or with residual soil herbicides that are labeled for fall use on cabbage. Use the full, listed rates of burndown herbicides in combination with SPARTAN CHARGE HERBICIDE, or split applications as needed. Observe the most restrictive of all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

#### Preplant Incorporated (PPI)

SPARTAN CHARGE HERBICIDE may be applied as a preplant incorporated treatment in the spring prior to transplanting of cabbage. Do not incorporate to depths greater than 2 inches. SPARTAN CHARGE HERBICIDE can be tankmixed with other burndown or soil- applied herbicides labeled for use in cabbage. Use the full, listed rates of burndown herbicides or split applications as needed. Observe the most restrictive of all precautions, instructions and rotational cropping guidelines of each product's label when tank mixing including all references to potential carryover and crop injury warnings or restrictions.

#### **Transplant Cabbage**

SPARTAN CHARGE HERBICIDE may be applied pre-emergence as a broadcast or banded treatment to transplanted cabbage only. Make broadcast or banded treatment applications prior to transplanting. SPARTAN CHARGE HERBICIDE may be applied as a banded treatment into the row middles within 72 hours after transplanting.

## Weeds Controlled

## When Applied according to directions, SPARTAN CHARGE HERBICIDE will provide control of:

Galinsoga, hairy	Waterhemp, common
Lambsquarters, common	Waterhemp, tall
Pigweed, redroot	

For information on other weeds not listed above, refer to WEEDS CONTROLLED section in this label.

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of SPARTAN CHARGE HERBICIDE (sulfentrazone and carfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with SPARTAN CHARGE HERBICIDE. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SPARTAN CHARGE HERBICIDE under specific local conditions.

#### Restrictions

Do not apply more than 15.2 fl oz/A of SPARTAN CHARGE HERBICIDE (0.37 lb ai sulfentrazone and 0.04 lb ai carfentrazone-ethyl) per twelve-month period.

Do not apply more than 15.2 fl oz/A (0.37 lb ai sulfentrazone and 0.04 lb ai carfentrazone-ethyl) in a single application. Do not apply more than 1 application per year.

The twelve-month period is considered to begin upon the initial SPARTAN CHARGE HERBICIDE application. Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate to depths greater than 2 inches. Pre-harvest Interval (PHI): 80 days

## **DRY SHELLED PEAS**

Chickpea, Pea (Pisum) (including Dry field pea) and Pigeon pea.

#### Fall Applications

SPARTAN CHARGE HERBICIDE may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting the following spring.

Apply SPARTAN CHARGE HERBICIDE to the stubble or soil surface and allow moisture from rainfall or snow to move the product into the soil. Do not mechanically incorporate in the fall or spring as this can destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils or to existing snow cover to prevent SPARTAN CHARGE HERBICIDE runoff from rain or snow melt that may occur following application. SPARTAN CHARGE HERBICIDE may be tank mixed with other residual soil herbicides that are labeled for fall use on dry bean and dry peas. If weeds are emerged at the time of SPARTAN CHARGE HERBICIDE application, use a burndown herbicide such as glyphosate or paraquat at the full-labeled rate in combination with SPARTAN CHARGE HERBICIDE or split application as needed. Select the appropriate rate from the table below within the correct soil type and organic matter range. When applying SPARTAN CHARGE HERBICIDE in the fall, use a mid to high rate within the rate range for the appropriate soil type and organic matter.

#### Preplant Burndown, Early Preplant, and Preemergence Applications

Apply SPARTAN CHARGE HERBICIDE alone or with other herbicides or liquid fertilizers as a burndown or preemergence treatment prior to planting or up to 3 days after planting dry shelled peas and beans to control or suppress weeds. Properly closed seed furrows are required when applying at planting time. When planting into soil treated preplant with SPARTAN CHARGE HERBICIDE, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control.

Optimum broad-spectrum control of annual and perennial weeds requires a tank mix with a broad-spectrum burndown herbicide such as glyphosate. glufosinate, or paraquat. When tank mixing SPARTAN CHARGE HERBICIDE with other products be sure the SPARTAN CHARGE HERBICIDE is added to the spray tank water first. For specific mixing instructions refer to the Mixing and Loading instructions section of this label.

SPARTAN CHARGE HERBICIDE Use Rate Table (Dry Shelled Peas) Fall, Early Preplant, and Preemergence					
Broadcast Rate fl oz/A (lb ai/A) SPARTAN CHARGE					
	Soil Texture				
% Organic Matter Coarse Medium Fine					
<1.5 3.0(0.08)-3.75(0.10) 3.75(0.1) - 5.75(0.16) 3.75(0.10) - 5.75(0.16)					
1.5-3.0 $3.75(0.10) - 5.75(0.16)$ $5.0(0.14) - 7.75(0.21)$ $5.75(0.16) - 7.75(0.21)$					
>3.0 5.0(0.14) - 7.75(0.21) 5.75(0.16) - 8.6(0.23) 6.7(0.18) - 10.2(0.28)					
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories.					

Use higher rates for soils of pH less than 7.0 and lowest rate for pH greater than 7.0 within the rate range.

#### Precautions

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and/or pH of 7.8 or higher, or on highly eroded soils (such as hilltops), or in areas of calcareous outcroppings. Reduce the use rates of SPARTAN CHARGE HERBICIDE or do not apply it in those areas to avoid crop injury. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response. On coarse soils, best results are achieved with SPARTAN CHARGE HERBICIDE when applications are made early preplant and greater than 14 days before planting.

These Crop Specific Use directions are based upon the interactive effects of SPARTAN CHARGE HERBICIDE and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with SPARTAN CHARGE HERBICIDE. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SPARTAN CHARGE HERBICIDE under specific local conditions.

Thorough coverage is essential for control of small susceptible broadleaf weeds. If thorough coverage is not achieved, postemergent weed control will be poor. Optimum broad-spectrum control of annual and perennial weeds requires a tank-mix of with a broad-spectrum burndown herbicide such as glyphosate, glufosinate, or paraquat.

If adequate moisture (1/2" to 1" of rainfall or irrigation) is not received within 7 to 10 days and also if dry conditions persist throughout the growing season, erratic preemergent weed control may result. Additional moisture is needed throughout the growing season to maintain herbicide activity and prevent weed escapes.

When used as directed, SPARTAN CHARGE HERBICIDE will provide preemergent control of the following weeds (refer to POSTEMERGENT WEEDS CONTROLLED SECTION for postemergent weeds controlled):

Amaranth, Palmer	Pigweed, red root
Filaree, redstem	Pigweed, smooth
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern black	

#### Restrictions

Do not apply SPARTAN CHARGE HERBICIDE after crop emergence, or if the seedling is close to the soil surface, as undesirable crop response may occur.

Do not apply more than 10.2 fl oz/A (0.25 lb ai sulfentrazone and 0.03 lb ai carfentrazone-ethyl) per twelve-month period. Do not apply more than 10.2 fl oz/A (0.25 lb ai sulfentrazone and 0.03 lb ai carfentrazone-ethyl) in a single application.

Do not apply more than 2 applications per year when using reduced application rates equal or less than 5.1 fl oz/A of this product. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE HERBICIDE application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or to existing snow cover to prevent SPARTAN CHARGE HERBICIDE runoff from rain or snow melt that may occur following application.

## **FALLOW SYSTEMS**

SPARTAN CHARGE HERBICIDE may be used in fallow cropping systems for weed control for soil moisture conservation using rates in Table below. Follow crop rotational restrictions when replanting following SPARTAN CHARGE HERBICIDE applications.

SPARTAN CHARGE HERBICIDE Use Rate Table Fallow Applications					
Broadcast Rate	Broadcast Rate fl oz/A (lb ai/A) SPARTAN CHARGE HERBICIDE				
	Soil Texture				
% Organic Matter	Coarse Medium Fine				
<1.5	3.75(0.10) - 5.0(0.14)	3.75(0.10) - 5.75(0.16)	5.0(0.14) - 6.5(0.18)		
1.5-3.0	3.75(0.10) - 5.75(0.16)	5.0(0.14) - 7.75(0.21)	5.75 (0.16)- 8.5(0.23)		
>3.0	5.0(0.14) - 7.75(0.21)	5.75(0.16) - 8.5(0.23)	6.5(0.18) - 10.2(0.28)		
Refer to the previous information on	asil turnes under the COARCE MED	IIIM and CINE actoroxics			

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories.

Use higher rates for soils of pH less than 7.0 and lowest rate for pH greater than 7.0 within the rate range.

## Adjuvant Requirements

For optimum control of emerged weeds a nonionic surfactant, crop oil concentrate, methylated seed oil, or equivalent adjuvant is required. Use a nonionic surfactant (NIS) at 0.25% v/v (2 pints/100 gallons of spray solution) having at least 80% active ingredient or a petroleum or oil seed based crop oil concentrate (COC) at 1.5 to 2.0% v/v (1.5 to 2.0 gallons per 100 gallons of spray solution) or a methylated seed oil (MSO). A high quality sprayable liquid nitrogen fertilizer at 2.0 to 4.0% v/v (2 to 4 gallons per 100 gallons) or ammonium sulfate at 2 to 4 pounds per acre may be used in addition to the selected NIS, COC, or MSO. When an adjuvant is to be used with this product, FMC recommends use of a Chemical Producers and Distributors Association certified adjuvant.

Optimum broad-spectrum control of annual and perennial weeds requires a tank mix with a broad-spectrum burndown herbicide such as glyphosate, glufosinate, or paraquat. When tank mixing SPARTAN CHARGE HERBICIDE with other products be sure the SPARTAN CHARGE HERBICIDE is added to the spray tank water first. For specific mixing instructions refer to the Mixing and Loading instructions section of this label.

For all products used in tank mixes refer to the specific product labels for all restrictions on tank mixing and observe the most restrictive of all label precautions, instructions, and rotational cropping restrictions.

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of SPARTAN CHARGE HERBICIDE and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with SPARTAN CHARGE HERBICIDE. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SPARTAN CHARGE HERBICIDE under specific local conditions. **Thorough coverage is essential for control of susceptible broadleaf weeds.** If thorough coverage is not achieved, postemergent weed control will be poor. If adequate moisture (1/2" to 1" of rainfall or irrigation) is not received within 7 to 10 days and also if dry conditions persist throughout the growing season, erratic premergent weed control may result. Additional moisture is needed throughout the growing season to maintain herbicide activity and prevent weed escapes.

When used as directed, SPARTAN CHARGE HERBICIDE will provide preemergent control of the following weeds (refer to POSTEMERGENT WEEDS CONTROLLED section for postemergent weeds controlled):

Kochia (ALS and Triazine Resistant)	Pigweed, redroot
Lambsquarters, common	Pigweed, smooth
Morningglory, ivyleaf	Thistle, Russian
Morningglory, tall	Waterhemp, common
Nightshade, Eastern Black	Waterhemp, tall

#### Restrictions

Do not apply more than 10.2 fl oz/A (0.25 lb ai sulfentrazone and 0.03 lb ai carfentrazone-ethyl) per twelve-month period. Do not apply more than 10.2 fl oz/A (0.25 lb ai sulfentrazone and 0.03 lb ai carfentrazone-ethyl) in a single application.

Do not apply more than 2 applications per year when using reduced application rates equal or less than 5.1 fl oz/A of this product. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE HERBICIDE application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent SPARTAN CHARGE HERBICIDE runoff from rain or snowmelt that may occur following application.

## **FLAX**

# APPLICATION TIMING - Fall Application, Early Preplant, and Preemergence Applications FALL APPLICATION

SPARTAN CHARGE HERBICIDE may be applied in the fall following crop harvest or in existing fallow fields to control or suppress weeds the following season. The SPARTAN CHARGE HERBICIDE Rotational Crop Guidelines must be followed if crops are planted the next season. Apply SPARTAN CHARGE HERBICIDE to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product. Do not mechanically incorporate in the fall or spring after application because this activity may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent SPARTAN CHARGE HERBICIDE runoff from rain or snow that may occur following application. SPARTAN CHARGE HERBICIDE may be tank mixed with herbicides to control emerged weeds. Sequential applications of burndown herbicides may be needed depending on weed size. In situations where weed size may interfere with SPARTAN CHARGE HERBICIDE reaching the soil surface, a separate burndown application prior to the application of SPARTAN CHARGE HERBICIDE will be required. Use full, label-listed rates of burndown herbicides in combination with SPARTAN CHARGE HERBICIDE, or sequential applications as needed. Higher aerial spray volumes are required when there is a dense weed population or canopy. Thorough coverage is essential for post- emergence control of small susceptible labeled broadleaf weeds in combination with glyphosate.

SPARTAN CHARGE HERBICIDE can be tank mixed with other herbicides. Observe the most restrictive of all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

#### SPRING APPLICATION - Early Preplant, and Preemergence Applications

Apply SPARTAN CHARGE HERBICIDE alone or with other herbicides as a preemergence treatment prior to planting or up to 3 days after planting flax for preemergence control of susceptible broadleaf weeds using rates listed in the table below. Properly closed seed furrows are required when applying at planting time or before seed germination. When planting into soil treated preplant with SPARTAN CHARGE HERBICIDE, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control.

When tank mixing SPARTAN CHARGE HERBICIDE with other products be sure the SPARTAN CHARGE HERBICIDE is added to the spray tank water first. For specific mixing instructions refer to the Mixing and Loading instructions section of this label.

SPARTAN CHARGE HERBICIDE Use Rate Table (Flax) Fall, Preplant Burndown, Early Preplant, and Preemergence			
Broadcast Rate fl oz/A (lb ai/A) SPARTAN CHARGE HERBICIDE			
	Soil Texture		
% Organic Matter	Coarse Medium Fine		
<1.5	3.75(0.10) - 5.0(0.14)	3.75(0.10) - 5.75(0.16)	5.0(0.14) - 6.5(0.18)
1.5-3.0	3.75 (0.10) – 5.75(0.16)	5.0(0.14) - 7.75(0.21)	5.75(0.16) - 8.5(0.23)
>3	5.0(0.14) - 7.75(0.21)	5.75(0.16) - 8.5(0.23)	7.75(0.21) – 10.2(0.28)

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lowest rate for pH greater than 7.0 within the rate range.

#### Precautions

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.0 or higher, or on highly eroded soils, hill tops, or in areas of calcareous outcroppings. Reduce SPARTAN CHARGE HERBICIDE use rates to 3.75 oz/A or do not apply in those areas to avoid crop injury. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of SPARTAN CHARGE HERBICIDE and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, SPARTAN CHARGE HERBICIDE Product Use Rates, Crop Rotational Intervals, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with SPARTAN CHARGE HERBICIDE. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SPARTAN CHARGE HERBICIDE under specific local conditions.

#### Weed Control

Thorough coverage is essential for control of small susceptible, emerged broadleaf weeds. If thorough coverage is not achieved, postemergence weed control will be poor. Optimum broad-spectrum post-emergent control of emerged weeds requires a tank mix with a broad-spectrum burndown herbicide such as glyphosate. Failure to achieve adequate burndown of existing vegetation prior to flax planting can result in poor crop growing conditions the remainder of the season. When tank-mixing SPARTAN CHARGE HERBICIDE with other burndown herbicides for control of emerged weeds, it is recommended to use a full rate of the tank-mix herbicide. If adequate moisture (1/2" to 1" of rainfall or irrigation) is not received within 7 to 10 days and also if dry conditions persist throughout the growing season, erratic preemergence weed control may result. Additional moisture is needed throughout the growing season to maintain herbicide activity and prevent weed escapes.

When used as directed, SPARTAN CHARGE HERBICIDE will provide preemergence control of the following weeds (refer to **POSTEMERGENT WEEDS CONTROLLED** section for postemergence weeds controlled):

Kochia (ALS and Triazine Resistant)	Morningglory, tall*
Morningglory, ivyleaf*	Nightshade, Eastern black

<sup>\*</sup> Partial or reduced control of the weeds listed above will occur under dry conditions, under heavy pest pressure or at low use rates under 5.75 oz. **Restrictions** 

Do not apply SPARTAN CHARGE HERBICIDE after crop emergence, or if the seedling is close to the soil surface as undesirable crop response may occur.

Do not apply more than 10.2 fl oz/A (0.25 lb ai sulfentrazone and 0.03 lb ai carfentrazone-ethyl) per twelve-month period. Do not apply more than 10.2 fl oz/A (0.25 lb ai sulfentrazone and 0.03 lb ai carfentrazone-ethyl) in a single application.

Do not apply more than 2 applications per year when using reduced application rates equal or less than 5.1 fl oz/A of this product. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE HERBICIDE application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent SPARTAN CHARGE HERBICIDE runoff from rain or snowmelt that may occur following application.

## **HORSERADISH**

SPARTAN CHARGE HERBICIDE Use Rate Table (Horseradish) Preemergence, and Preplant Incorporated Applications			
Broadcast Rate fl oz (lb ai/A) SPARTAN CHARGE HERBICIDE			
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	2.9(0.08) - 5.7(0.16)	3.8(0.10) - 5.7(0.16)	3.8(0.10) - 5.7(0.16)
1.5-3.0	5.7(0.16) - 7.6(0.21)	7.6(0.21) - 10.2(0.28)	7.6(0.21) - 10.2(0.28)
>3.0	7.6(0.21) - 9.8(0.27)	7.6(0.21) - 10.2(0.28)	7.6(0.21) - 10.2(0.28)

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

SPARTAN CHARGE HERBICIDE may be applied as preemerge or preplant incorporated treatment by ground in a minimum of 15 gallons of finished spray.

#### **Preplant Incorporated (PPI)**

SPARTAN CHARGE HERBICIDE may be applied as a preplant incorporated treatment in the spring prior to planting of horseradish. Do not incorporate to depths greater than 2 inches. SPARTAN CHARGE HERBICIDE can be tankmixed with other burndown or soil-applied herbicides labeled for use on horseradish. Use the full, listed rates of burndown herbicides or split applications as needed. Observe the most restrictive of all precautions, instructions and rotational cropping guidelines of each product's label when tank mixing including all references to potential carryover and crop injury warnings or restrictions.

## Pre-Emergence (PRE)

SPARTAN CHARGE HERBICIDE may be applied pre-emergence as a broadcast or banded treatment on horseradish. Make broadcast applications prior to planting, or soon after planting but at least 5 days before crop emergence. SPARTAN CHARGE HERBICIDE may be applied as a banded treatment into the row middles after crop emergence. Use the higher SPARTAN CHARGE HERBICIDE rates on clay soils and/or soils with greater than 1% organic matter. SPARTAN CHARGE HERBICIDE may be applied with other pesticides registered for use on horseradish.

### **Weeds Controlled**

When applied according to directions, SPARTAN CHARGE HERBICIDE will provide control of:

Lambsquarters, common	Pigweed, redroot
Morningglory, ivyleaf	Waterhemp, common
Nutsedge, yellow	Waterhemp, tall

For information on other weeds not listed above, refer to WEEDS CONTROLLED section in this label.

#### **Precautions**

These Crop Specific Use directions are based upon the interactive effects of SPARTAN CHARGE HERBICIDE (sulfentrazone and carfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with SPARTAN CHARGE HERBICIDE. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SPARTAN CHARGE HERBICIDE under specific local conditions.

## Restrictions

Do not apply more than 10.2 fl oz/A (0.25 lb ai sulfentrazone and 0.03 lb ai carfentrazone-ethyl) per twelve-month period.

Do not apply more than 10.2 fl oz/A (0.25 lb ai sulfentrazone and 0.03 lb ai carfentrazone-ethyl) in a single application.

Do not apply more than 2 applications per year when using reduced application rates equal or less than 5.1 fl oz/A of this product. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE HERBICIDE application.

Do not apply directly on the crop after the crop emerges or if the seedling sprouts are close to the soil surface.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not incorporate to depths greater than 2 inches.

# LIMA BEANS, SUCCULENT (Tennessee Only)

## Preplant Burndown, Early Preplant, and Preemergence Applications

Apply SPARTAN CHARGE HERBICIDE alone or with other herbicides or liquid fertilizers as a burndown or preemergence treatment prior to planting lima beans to control or suppress weeds. Properly closed seed furrows are required when applying at planting time or before seed germination. When planting into soil treated preplant with SPARTAN CHARGE HERBICIDE, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control.

For applications 14-21 or more days prior to planting, use the mid to high rate in the appropriate rate range for the soil and organic matter type in Table below. Optimum broad-spectrum control of annual and perennial weeds requires a tank mix with a broad-spectrum burndown herbicide such as glyphosate, glufosinate, or paraquat. When tank mixing SPARTAN CHARGE HERBICIDE with other products be sure the SPARTAN CHARGE HERBICIDE is added to the spray tank water first. For specific mixing instructions refer to the Mixing and Loading instructions section of this label

SPARTAN CHARGE HERBICIDE Use Rate Table (Lima Beans, Succulent)  Preplant Burndown, Early Preplant, and Preemergence				
Broadcast Rate fl oz/A (lb ai/A) SPARTAN CHARGE HERBICIDE				
		Soil Texture		
% Organic Matter	Coarse	Medium	Fine	
<1.5	3.0(0.08) - 5.0(0.14)	3.8(0.10) - 7.75(0.21)	4.8(0.13) - 7.75(0.21)	
1.5 – 3.0	3.8(0.10) - 5.75(0.16)	5.0(0.14) - 7.75(0.21)	5.75(0.16) - 7.75(0.21)	
>3.0 5.0(0.14) - 7.75(0.21) 5.75(0.16) - 7.75(0.21) 6.7(0.18) - 7.75(0.21)				
Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories.				

Use higher rates for soils of pH less than 7.0 and lowest rate for pH greater than 7.0 within the rate range.

#### **Precautions**

When applying SPARTAN CHARGE HERBICIDE to coarse textured soils, growers must allow a minimum of 7-14 days from application to planting. Best results are achieved with SPARTAN CHARGE HERBICIDE when applications are made early preplant and greater than 14 days before planting.

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1%) and pH of 7.8 or higher, or on highly eroded soils, or in areas of calcareous outcroppings. Reduce SPARTAN CHARGE HERBICIDE use rates in those areas to avoid crop injury. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of SPARTAN CHARGE HERBICIDE and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with SPARTAN CHARGE HERBICIDE. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SPARTAN CHARGE HERBICIDE under specific local conditions.

Thorough coverage is essential for control of small susceptible broadleaf weeds. If thorough coverage is not achieved, postemergent weed control will be poor. Optimum broad-spectrum control of annual and perennial weeds requires a tank-mix of with a broad-spectrum burndown herbicide such as glyphosate, glufosinate, or paraquat.

When used as directed, SPARTAN CHARGE HERBICIDE will provide preemergent control of the following weeds (refer to POSTEMERGENT WEEDS CONTROLLED section for postemergent weeds controlled):

Copperleaf, hophornbeam	Pigweed, redroot
Morningglory, entireleaf	Pigweed, smooth
Morningglory, ivyleaf	

## Restrictions

Do not apply SPARTAN CHARGE Herbicide after crop emergence, or if the seedling is close to the soil surface, as undesirable crop response may occur.

Do not apply more than 7.75 fl oz/a (0.19 lb ai sulfentrazone and 0.02 lb ai carfentrazone-ethyl) per twelve-month period. Do not apply more than 7.75 fl oz/a (0.19 lb ai sulfentrazone and 0.02 lb ai carfentrazone-ethyl) in a single application.

Do not apply more than 1 application per year.

The twelve-month period is considered to begin upon the initial SPARTAN CHARGE HERBICIDE application. Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or to existing snow cover to prevent SPARTAN CHARGE HERBICIDE runoff from rain or snow melt that may occur following application.

Do not harvest forage or feed forage to livestock.

Only use for sites, pests, and application methods specified on this labeling.

The maximum seasonal rate for "legume vegetables (crop group 6) except soybean" is 0.096 lb ai/acre.

## **PEANUTS**

## SOUTHEASTERN UNITED STATES ONLY (AL, AR, GA, LA, MS, NC, SC, TN & VA)

## Preplant Burndown, Early Preplant, and Preemergence Applications

Apply SPARTAN CHARGE HERBICIDE alone or with other herbicides or liquid fertilizers as a burndown or preemergence treatment prior to planting or within 3 days after planting peanuts to control or suppress weeds using rates in Table below. Properly closed seed furrows are required when applying at planting time or before seed germination. When planting into soil treated preplant with SPARTAN CHARGE HERBICIDE, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control.

Optimum broad-spectrum control of annual and perennial weeds requires a tank mix with a broad-spectrum burndown herbicide such as glyphosate, glufosinate, or paraquat. When tank mixing SPARTAN CHARGE HERBICIDE with other products, be sure SPARTAN CHARGE HERBICIDE is added to the spray tank water first. For specific mixing instructions refer to the Mixing and Loading instructions section of this label

SPARTAN CHARGE HERBICIDE Use Rate Table (Peanuts) Preplant Burndown, Early Preplant, and Preemergence				
Broadcast Rate fl oz/A (lb ai/A) SPARTAN CHARGE HERBICIDE				
	Soil Texture			
% Organic Matter	Coarse Medium Fine			
<1.5	3.0(0.08) - 3.75(0.10)	3.75(0.10) - 5.75(0.16)	3.75(0.10) - 5.75(0.16)	
1.5-3.0	3.75(0.10) - 5.75(0.16)	5.0(0.14) - 7.75(0.21)	5.75(0.16) - 7.75(0.21)	
>3.0 5.0(0.14) - 7.75(0.21) 5.75(0.16) - 7.75(0.21) 6.5(0.18) - 10.2(0.28)				

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories.

Use higher rates for soils of pH less than 7.0 and lowest rate for pH greater than 7.0 within the rate range.

#### Precautions

When applying SPARTAN CHARGE HERBICIDE with other registered herbicides, refer to specific label information on precautions, instructions, limitations, application methods and timings, and weeds controlled.

SPARTAN CHARGE HERBICIDE is especially effective against a wide range of economic broadleaf weeds. The same processes that SPARTAN CHARGE HERBICIDE affects in these weeds can, under certain conditions, be affected in peanuts. These conditions include high pH (7.5 and above), cool weather, prolonged and excessive moisture, seedling diseases, and any other condition, including poor agronomic practices, that are unfavorable to vigorous crop growth. Such effects in peanuts are often observed as stunting and discoloration. The duration of these effects are somewhat dependent on the duration of the adverse growing conditions. These effects lessen and generally diminish with a return to normal growing conditions. Thorough coverage is essential for control of small susceptible broadleaf weeds. If thorough coverage is not achieved, postemergent weed control will be poor.

When used as directed, SPARTAN CHARGE HERBICIDE will provide preemergent control of the following weeds (refer to POSTEMERGENT WEEDS CONTROLLED section for postemergent weeds controlled):

BROADLEAVES		
Amaranth, Palmer	Amaranthus palmeri	
Amaranth, spiny	Amaranthus, spinosus	
Amaranth, spleen	Amaranthus dubius	
Jimsonweed	Datura stramonium	
Kochia	Kochia scoparia	
Lambsquarters, common	Chenopodium album	
Morningglory, Entireleaf	Ipomea hederacea integriusc	
Morningglory, lvyleaf	Ipomea hederacea hederacea	
Morningglory, Palmleaf	Ipomea Wrightii	
Morningglory, purple	Ipomea turbinata	
Morningglory, red	Ipomea coccinea	
Morningglory, scarlet	Ipomea hederifolia	
Morningglory, Smallflower	Jacquemontia tamnifolia	
Morningglory, tall	Ipomea, purpurea	
Nightshade, black	Solanum nigrum	
Nightshade, Eastern black	Solanum americanum	
Pigweed, redroot	Amaranthus retroflexus	
Pigweed, smooth	Amaranthus hybridus	
Smartweed, PA (seedling)	Polygonum pensylvanicum	
Thistle, Russian	Lactuca serriola	
Waterhemp, common	Amaranthus rudis	
Waterhemp, tall	Amaranthus tuberculatos	
SEDGES		
Nutsedge, purple	Cyperus rotundus	
Nutsedge, yellow	Cyperus esculentus	
Sedge, annual	Cares spp.	

## Restrictions

Do not apply SPARTAN CHARGE Herbicide after crop emergence, at cracking, or if the seedling is close to the soil surface, as undesirable crop response may occur.

Do not apply more than 10.2 fl oz/A (0.25 lb ai sulfentrazone and 0.03 lb ai carfentrazone-ethyl) of SPARTAN CHARGE HERBICIDE per twelve-month period.

Do not apply more than 10.2 fl oz/A (0.25 lb ai sulfentrazone and 0.03 lb ai carfentrazone-ethyl) in a single application.

Do not apply more than 2 applications per year when using reduced application rates equal or less than 5.1 fl oz/A of this product. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE HERBICIDE application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent SPARTAN CHARGE HERBICIDE runoff from rain or snowmelt that may occur following application.

Do not apply after crop seed germination.

Do not feed treated peanut forage or peanut hay to livestock.

Do not irrigate with water having a pH higher than 9.

## SOD PRODUCTION

SPARTAN CHARGE HERBICIDE may be applied to established seeded, sodded or sprigged turfgrasses following the second mowing for the control of key grass, sedge and broadleaf weeds. Turf grasses should have developed a good root system, a uniform stand with healthy root systems to fill in the exposed edges prior to application. Sod injury could result from application of this product on sod that is not well established or has been weakened by stresses such as unfavorable weather conditions, diseases, chemical, recent harvesting or mechanical influences.

#### **Turf Grass Tolerance**

When applied as directed, the following established turf grasses are tolerant to SPARTAN CHARGE HERBICIDE at the listed use rates. Tolerant grasses

Grass Type	Maximum Use Rate For Single Application  fl oz/A (lb ai/A) of SPARTAN CHARGE HERBICIDE	
Cool Season Grasses **		
Bentgrass, creeping	5.1(0.14)	
Fescue, fine * (Festuca rubra) Fescue, tall * (Festuca arundinacea) Ryegrass, perennial (Lolium perenne) Bluegrass, Kentucky (Poa pratensis) Bluegrass, Rough (Poa trivialis)	5.1(0.14) - 10.2(0.28)	
Warm Season Grasses **	•	
Bahiagrass (Paspalum notatum) Buffalograss (Buchloe dactyloides) Carpetgrass (Axonopus affinis) Centipedegrass (Eremochloa ophuioides) Kikuyugrass (Pennisetum clandestinum) Seashore Paspalum (Paspalum vaginatum) Zoysiagrass (Zoysia japonica) Bermudagrass (Cynadon dactylon) Bermudagrass Hybrids (Cyn bluegrass) St. Augustinegrass (Stenotaphrum secundatum)	10.2(0.28) - 15.2(0.41)	

<sup>\*</sup> Applications of SPARTAN CHARGE HERBICIDE to certain varieties of Chewings Fine Fescue or Tall Fescue may result in undesirable plant response.

#### Applications to Reseeded, Overseeded or Sprigged Areas

Reseeding, overseeding or sprigging may be done following SPARTAN CHARGE HERBICIDE applications to turfgrasses. If reseeding, overseeding or sprigging is done within 1 month following a SPARTAN CHARGE HERBICIDE treatment, the establishment of desirable grasses may be inhibited. Overseeding of bermudagrass with perennial ryegrass may be done two (2) to four (4) weeks following a SPARTAN CHARGE HERBICIDE application provided slight grass plant response can be tolerated.

Optimum reseeding and overseeding results may be obtained with the use of mechanical or power seeding equipment, and where proper soil cultivation, irrigation and fertilization practices are followed.

#### Adjuvant use

Good spray coverage is required for optimum control of weeds. Temporary discoloration of some sod species may result from use of surfactant. Use of surfactants is not recommended.

## **Postemergence Control of Sedges**

SPARTAN CHARGE HERBICIDE may be applied at the rate of 4 to 12 fl oz/A to established turf grasses for the control or suppression of sedges. Select the correct SPARTAN CHARGE HERBICIDE use rate from the Tolerant Grasses table.

When applied as directed, SPARTAN CHARGE HERBICIDE will provide control or suppression of the following sedges.

Common Name	Scientific Name
Kyllinga, green	Kyllinga brevifolia
Kullinga, false green	Kyllinga gracillima
Nutsedge, purple	Cyperus rotundus
Nutsedge, yellow	Cyperus esculentus
Sedge, cylindrical	Cyperus retrorsus
Sedge, globe	Cyperus globulosus
Sedge, Surinam	Cyperus surinamensis
Sedge, Texas	Cyperus polystachyos

**Purple nutsedge:** For optimum control of purple nutsedge, split applications are listed below. Apply 4 to 8 ounces per acre as an initial application followed by a second application when evidence of actively growing purple nutsedge is visible. Do not exceed the maximum rate per acre based on the turf variety as listed in the Tolerant Grasses table.

#### Split Application Rates for Optimum Purple Nutsedge Control

Grass Type	First Application (fl. oz (lb ai) per acre)	Second Application (fl. Oz (lb ai). per acre
Cool Season Grasses	2.5(0.07) - 5.1(0.14)	2.5(0.07) - 7.6(0.21)
Warm Season Grasses	5.1(0.14) - 7.6(0.21)	5.1(0.14) - 7.6(0.21)

Allow 35 days after first application for second application.

<sup>\*\*</sup> It is important to note that not all varieties or cultivars have been evaluated under treatment with SPARTAN CHARGE HERBICIDE. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SPARTAN CHARGE HERBICIDE under specific local conditions.

#### Postemergence Control of Grassy Weeds

SPARTAN CHARGE HERBICIDE will control or suppress specific annual grasses listed below when applied at a rate of 4 to 12 fl oz/acre. Apply the highest rate consistent with the rate needed for turfgrass tolerance in the Tolerant Grasses table. Rates lower than 12 fl oz/acre will generally control grasses for at least 60 days. SPARTAN CHARGE HERBICIDE works best if applied when the annual grasses are small (pre tiller stage) and actively growing.

Common Name	Scientific Name
Goosegrass	Eleusine indica

#### Postemergence Control of Broadleaf Weeds

SPARTAN CHARGE HERBICIDE will control or suppress the weeds listed in the broadleaf chart below when applied alone shortly after weeds have emerged. SPARTAN CHARGE HERBICIDE may be applied at the rate of 4 to 12 fluid ounces per acre to established turf grasses for the control or suppression of broadleaf weeds. Select the correct SPARTAN CHARGE HERBICIDE use rate from the Tolerant Grasses table. For optimum results, make SPARTAN CHARGE HERBICIDE applications shortly after weeds have emerged.

SPARTAN CHARGE HERBICIDE may be tankmixed with other herbicides, insecticides and fungicides registered for use on turfgrasses. Read and follow the label directions and restrictions of the tank mix partner to determine turfgrass species tolerance, use rates and application requirements. Follow all label restrictions, use directions and precautionary statements before use.

When applied as directed, SPARTAN CHARGE HERBICIDE will provide control or suppression of the following broadleaf weeds.

Broadleaves	Scientific Name
Bittercress	Cardamine spp.
Black Medic	Medicago lupulina
Buttercup	Ranunculus spp.
Carolina geranium	Geranium carolinianum
Carpetweed	Mollugo verticillata
Chickweed, common	Stellaria media
Chickweed, mousear	Cerastium vulgatum
Cinquefoil	Potentilla spp.
Clover	Trifolium spp.
Cudweed	Gnaphalium spp.
Dandelion	Taraxacum officinale
Dock, curly	Rumex crispus
Evening primrose	Oenothera biennis
Fiddleneck	Amsinckia spp.
Filaree	Erodium spp.
Garlic, wild	Allium vineale
Goldenrod	Solidago spp.
Ground ivy	Glechema hederasea
Henbit	Lamium amplexicaule
Knotweed, prostrate	Polygonum aviculare
Kochia	Kochia scoparia
Lambsquarters, common	Chenopodium album
Lawn burweed	Soliva pterosperma
Lespedeza, common	Lespedeza striata

Broadleaves	Scientific Name
Mallow, common	Malva neglecta
Onion, wild	Allium canadense
Parsley piert	Alchemilla arvensis
Pigweed, redroot	Amaranthus retroflexus
Pigweed, tumble	Amaranthus albus
Pineapple weed	Matricaria matricariodes
Plantain, buckhorn	Plantago lanceolata
Puncture weed	Tribulus terrestris
Purslane, common	Portulaca oleracea
Pusley, Florida	Richardia scabra
Redweed	Melochia corchorifolia
Rocket, London	Sisymbrium irio
Smartweed, PA	Polygonum pensylvanicum
Sorrel, red	Rumex acetosella
Speedwell	Veronica spp.
Spurge, annual	Euphorbia spp.
Spurge, prostrate	Euphorbia humistrata
Spurge, spotted	Euphorbia maculata
Star of Bethlehem	Omithogalum umbellatum
Velvetleaf	Abutilon theophrasti
Violet, wild	Viola pratincola
Woodsorrel, creeping	Oxalis corniculata
Woodsorrel, yellow	Oxalis stricta

## **Precautions**

The use of additional surfactants may cause temporary undesirable effects to turfgrasses.

#### Restrictions

Sod production areas must be established three (3) months prior to the initial treatment of SPARTAN CHARGE HERBICIDE. Do not apply SPARTAN CHARGE HERBICIDE to golf course greens or tees.

Do apply SPARTAN CHARGE HERBICIDE to turf grasses not listed on this label.

Do not apply more than 15.2 fl oz/A of SPARTAN CHARGE HERBICIDE (0.37 lb ai sulfentrazone and 0.04 lb ai carfentrazone-ethyl) per twelve month period.

Do not apply more than 15.2 fl oz/A of SPARTAN CHARGE HERBICIDE (0.37 lb ai sulfentrazone and 0.04 lb ai carfentrazone-ethyl) in a single application.

Do not apply more than 3 applications per year when using reduced application rates equal or less than 5.07 fl oz/A of this product. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE HERBICIDE application.

Do not apply with surfactants without on-site evaluations for spray mixture compatibility and physical effects to turf grasses.

Do not graze or feed forage harvested from SPARTAN CHARGE HERBICIDE treated areas.

Do not apply to landscape ornamental plants or ornamental beds.

Do not harvest sod within three (3) months of SPARTAN CHARGE HERBICIDE application. Only use for sites, pests, and application methods specified on this labeling.

## **SOYBEANS**

## Preplant Burndown, Early Preplant, and Preemergence Applications

Apply SPARTAN CHARGE HERBICIDE alone or with other herbicides or liquid fertilizers as a burndown or preemergence treatment prior to planting or within 3 days after planting soybeans to control or suppress weeds using rates in Table below. Properly closed seed furrows are required when applying at planting time or before seed germination. When planting into soil treated preplant with SPARTAN CHARGE HERBICIDE, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control.

Optimum broad-spectrum control of annual and perennial weeds requires a tank mix with a broad-spectrum burndown herbicide such as glyphosate, glufosinate, or paraquat. SPARTAN CHARGE HERBICIDE applied early pre-plant must be applied in combination with the appropriate burndown herbicide such as glyphosate, glufosinate, gramoxone, and/or 2,4-D to achieve acceptable control of existing weeds during application. When tank mixing SPARTAN CHARGE HERBICIDE with other products, be sure the SPARTAN CHARGE HERBICIDE is added to the spray tank water first. For specific mixing instructions refer to the Mixing and Loading instructions section of this label.

	<u> </u>	SICIDE	
Soil Texture			
Coarse Medium Fine			
5.75(0.16) - 7.75(0.21)	7.75(0.21) - 8.5(0.23)	8.5(0.23)	
7.75(0.21) - 8.5(0.23)	8.5( 0.23)	8.5(0.23)	
8.5(0.23)	8.5(0.23)	8.5(0.23)	
	Preplant Burndown, Early Preplant Burndown, Early Preplant St. (1974) (1	Coarse         Medium           5.75(0.16) - 7.75(0.21)         7.75(0.21) - 8.5(0.23)           7.75(0.21) - 8.5(0.23)         8.5(0.23)	

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lowest rate for pH greater than 7.0 within the rate range.

#### Precautions

When applying SPARTAN CHARGE HERBICIDE with other registered herbicides, refer to specific label information on precautions, instructions, limitations, application methods and timings, and weeds controlled.

SPARTAN CHARGE HERBICIDE is especially effective against a wide range of economic broadleaf weeds. The same processes that SPARTAN CHARGE HERBICIDE affects in these weeds can, under certain conditions, be affected in soybeans. These conditions include high pH (7.5 and above), cool weather, prolonged and excessive moisture, seedling diseases, and any other condition, including poor agronomic practices, that are unfavorable to vigorous crop growth. Such effects in soybeans are often observed as stunting and discoloration. The duration of these effects are somewhat dependent on the duration of the adverse growing conditions. These effects lessen and generally diminish with a return to normal growing conditions. Thorough coverage is essential for control of small susceptible broadleaf weeds. If thorough coverage is not achieved, postemergent weed control will be poor.

When used as directed, SPARTAN CHARGE HERBICIDE will provide preemergent control of the following weeds (refer to POSTEMERGENT WEEDS CONTROLLED SECTION for postemergent weeds controlled):

BROADLEAVES		
Amaranth, Palmer	Amaranthus palmeri	
Amaranth, spiny	Amaranthus, spinosus	
Amaranth, spleen	Amaranthus dubius	
Jimsonweed	Datura stramonium	
Kochia	Kochia scoparia	
Lambsquarters, common	Chenopodium album	
Morningglory, Entireleaf	Ipomea hederacea integriusc	
Morningglory, Ivyleaf	Ipomea hederacea hederacea	
Morningglory, Palmleaf	Ipomea Wrightii	
Morningglory, purple	Ipomea turbinata	
Morningglory, red	Ipomea coccinea	
Morningglory, scarlet	Ipomea hederifolia	
Morningglory, Smallflower	Jacquemontia tamnifolia	
Morningglory, tall	Ipomea, purpurea	
Nightshade, black	Solanum nigrum	
Nightshade, Eastern black	Solanum americanum	
Pigweed, redroot	Amaranthus retroflexus	
Pigweed, smooth	Amaranthus hybridus	
Smartweed, PA (seedling)	Polygonum pensylvanicum	
Thistle, Russian	Lactuca serriola	
Waterhemp, common	Amaranthus rudis	
Waterhemp, tall	Amaranthus tuberculatos	
SEDGES		
Nutsedge, purple	Cyperus rotundus	
Nutsedge, yellow	Cyperus esculentus	
Sedge, annual	Cares spp.	

## Restrictions

Do not apply SPARTAN CHARGE HERBICIDE after crop emergence, or if the seedling is close to the soil surface, as undesirable crop response may occur.

Do not apply more than 8.5 fl oz/A of SPARTAN CHARGE HERBICIDE (0.21 lb ai sulfentrazone and 0.02 lb ai carfentrazone-ethyl) per acre per application or per twelve-month period.

Do not apply more than 8.5 fl oz/A (0.21 lb ai sulfentrazone and 0.023 lb ai carfentrazone-ethyl) in a single application.

Do not apply more than 2 applications per year when using reduced application rates equal or less than 4.2 fl oz/A of this product. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE HERBICIDE application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent SPARTAN CHARGE HERBICIDE runoff from rain or snowmelt that may occur following application.

Do not apply after crop seed germination.

Only use for sites, pests, and application methods specified on this labeling. Do not feed soybean forage or hay to livestock.

## SUGARCANE

	SPARTAN CHARGE HERBICIDE Planting Time and La			
Broadcast Rate	Broadcast Rate fl oz/A (lb ai/A ) Soil Texture			
% Organic Matter	Coarse Medium Fine			
<1.5	5.7 (0.16)-7.6(0.21)	7.6(0.21)-10.2(0.28)	10.2(0.28)	
1.5-3	7.6(0.21)-10.5(0.29)	10.2(0.28)-12.8(0.35)	12.8(0.35)	
>3	10.2(0.28)-12.8(0.35) 12.8(0.35)-15.2(0.41) 15.2(0.41)			

Refer to the previous information on soil types under the COARSE, MEDIUM, and FINE categories. Use higher rates for soils of pH less than 7.0 and lower rates for pH greater than 7.0 within the rate range.

Apply SPARTAN CHARGE HERBICIDE as a broadcast or banded preemerge soil applied treatment for the control of broadleaf weeds, grasses and sedges in sugarcane. Refer to the SPARTAN CHARGE HERBICIDE Product Use Rate Section and Table above for specific use information.

#### **Planting Time Applications**

Apply SPARTAN CHARGE HERBICIDE preemerge to newly planted or ratoon sugarcane. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply either by air in a minimum of 5 gallons of spray per acre or by ground equipment in a minimum of 15 gallons of spray per acre. SPARTAN CHARGE HERBICIDE may be applied with other herbicides registered for use in sugarcane.

## **Lay-by Applications**

Apply SPARTAN CHARGE HERBICIDE as a directed spray to sugarcane at lay-by timing. Use the higher rate on clay soils and/or soils with organic matter content higher than 2 percent. Apply as a directed spray with ground equipment in a minimum of 15 gallons of spray per acre. SPARTAN CHARGE HERBICIDE may be applied with other herbicides registered for use in sugarcane.

#### Weeds Controlled

When applied according to directions, SPARTAN CHARGE HERBICIDE will provide control of:

Morningglory, entireleaf	Morningglory, tall
Morningglory, ivyleaf	Pigweed, red root
Morningglory, red	Nutsedge, yellow

For information on other weeds not listed above, refer to WEEDS CONTROLLED SECTION in this label.

#### Precautions

These Crop Specific Use directions are based upon the interactive effects of SPARTAN CHARGE HERBICIDE (sulfentrazone + carfentrazone) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, SPARTAN CHARGE HERBICIDE Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with SPARTAN CHARGE HERBICIDE. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SPARTAN CHARGE HERBICIDE under specific local conditions.

#### Restrictions

Pre-harvest Interval (PHI): Do not apply within 120 days of harvest.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not allow spray to contact crop leaves.

Do not apply more than 15.2 fl oz/A of SPARTAN CHARGE HERBICIDE (0.37 lb ai sulfentrazone and 0.04 lb ai carfentrazone-ethyl) per twelve-month period.

Do not apply more than 15.2 fl oz/A of SPARTAN CHARGE HERBICIDE (0.37 lb ai sulfentrazone and 0.04 lb ai carfentrazone-ethyl) in a single application.

Do not apply more than 2 applications per year when using reduced application rates equal or less than 7.6 fl oz/A of this product. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE HERBICIDE application.

## **SUNFLOWERS**

Fall Application, Preplant Burndown, Early Preplant, and Preemergence Applications

Use higher rates for soils of pH less than 7.0 and lowest rate for pH greater than 7.0 within the rate range.

	SPARTAN CHARGE HERBICIDE Fall, Preplant Burndown, Early F	` ,		
Dreadeast Data		1 .	PRICIPE	
broadcast Rate	Broadcast Rate fl oz/A (lb ai/A) SPARTAN CHARGE HERBICIDE  Soil Texture			
% Organic Matter	Coarse Medium Fine			
<1.5	3.8(0.10) - 5.0(0.14)	3.8(0.10) - 5.75(0.16)	5.0(0.14) - 6.7(0.18)	
1.5-3.0	3.8(0.10) - 5.75(0.16)	5.0(0.14) - 7.75(0.21)	5.75(0.16) - 8.6(0.23)	
>3.0	5.0(0.14) - 7.75(0.21)	5.75(0.16) - 8.6(0.23)	7.75(0.21) – 10.2(0.28)	
Refer to the previous information on	soil types under the COARSE, MED	IUM, and FINE categories.	•	

#### Fall Application

SPARTAN CHARGE HERBICIDE may be applied in the fall following crop harvest or in existing fallow fields to control or suppress weeds the following season. The SPARTAN CHARGE HERBICIDE Rotational Crop Guidelines must be followed if crops are planted the next season. Apply SPARTAN CHARGE HERBICIDE to the harvested crop stubble or soil surface without incorporation. Moisture in the form of rain or snow will move and activate the product. Do not mechanically incorporate in the fall or spring after application because this activity may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen soils to prevent SPARTAN CHARGE HERBICIDE runoff from rain or snow that may occur following application. SPARTAN CHARGE HERBICIDE may be tank mixed with herbicides to control emerged weeds. Sequential applications may be needed depending on weed size. In situations where weed size may interfere with SPARTAN CHARGE HERBICIDE reaching the soil surface, a separate burndown application prior to the application of SPARTAN CHARGE HERBICIDE will be required. Use full, listed rates of burndown herbicides in combination with SPARTAN CHARGE HERBICIDE, or sequential applications as needed. Higher aerial spray volumes are required when there is a dense weed population or canopy.

SPARTAN CHARGE HERBICIDE can be tank mixed with other herbicides. Observe the most restrictive of all precautions, instructions, and rotational cropping guidelines of each product's label when tank mixing, including all references to potential carryover and crop injury warnings or restrictions.

## Preplant Burndown, Early Preplant, and Preemergence Applications

Apply SPARTAN CHARGÉ HERBICIDE alone or with other herbicides or liquid fertilizers as a burndown or preemergence treatment prior to planting or up to 3 days after planting sunflowers to control or suppress weeds using rates in table above. Properly closed seed furrows are required when applying at planting time or before seed germination. When planting into soil treated preplant with SPARTAN CHARGE HERBICIDE, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control.

Optimum broad-spectrum control of annual and perennial weeds requires a tank mix with a broad-spectrum burndown herbicide such as glyphosate, glufosinate, or paraquat. When tank mixing SPARTAN CHARGE HERBICIDE with other products be sure the SPARTAN CHARGE HERBICIDE is added to the spray tank water first. For specific mixing instructions refer to the Mixing and Loading instructions section of this label.

#### Precautions

Some adverse crop response may occur on coarse textured soils with low organic matter (less than 1.5%) and pH of 7.8 or higher, or on highly eroded soils, hill tops, or in areas of calcareous outcroppings. Reduce SPARTAN CHARGE HERBICIDE use rates or do not apply in those areas to avoid crop injury. Inadequate seed furrow closure or shallow planting (less than 1.0 inch) may result in undesirable crop response. As expected, poor growing conditions such as excessive moisture, low temperatures, soil compaction and diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the interactive effects of SPARTAN CHARGE HERBICIDE and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, SPARTAN CHARGE HERBICIDE Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with SPARTAN CHARGE HERBICIDE. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SPARTAN CHARGE HERBICIDE under specific local conditions.

Thorough coverage is essential for control of small susceptible broadleaf weeds. If thorough coverage is not achieved, postemergent weed control will be poor. Optimum broad-spectrum control of annual and perennial weeds requires a tank-mix with a broad-spectrum burndown herbicide such as glyphosate, glufosinate, or paraquat.

If adequate moisture (1/2" to 1" of rainfall or irrigation) is not received within 7 to 10 days and also if dry conditions persist throughout the growing season, erratic preemergent weed control may result. Additional moisture is needed throughout the growing season to maintain herbicide activity and prevent weed escapes.

When used as directed, SPARTAN CHARGE HERBICIDE will provide preemergent control of the following weeds (refer to POSTEMERGENT WEEDS CONTROLLED SECTION for postemergent weeds controlled):

Amaranth, Palmer	Pigweed, red root
Filaree, redstem	Pigweed, smooth
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morningglory, ivyleaf	Waterhemp, common
Morningglory, tall	Waterhemp, tall
Nightshade, Eastern black	

#### Restrictions

Do not apply SPARTAN CHARGE Herbicide after crop emergence, or if the seedling is close to the soil surface as undesirable crop response may occur.

Do not apply more than 10.2 fl oz/A of SPARTAN CHARGE HERBICIDE (0.25 lb ai sulfentrazone and 0.03 lb ai carfentrazone- ethyl) per twelve-month period.

Do not apply more than 10.2 fl oz/A (0.25 lb ai sulfentrazone and 0.03 lb ai carfentrazone-ethyl) in a single application.

Do not apply more than 2 applications per year when using reduced application rates equal or less than 5.1 fl oz/A of this product. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE HERBICIDE application.

Do not use on soils classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent SPARTAN CHARGE HERBICIDE runoff from rain or snowmelt that may occur following application.

## TOBACCO (Burley, Flue-Cured, and Dark)

Broadcast Rate fl oz/A (lb ai/A ) SPARTAN CHARGE HERBICIDE		ICIDE	
Soil Texture			
% Organic Matter	Coarse	Medium	Fine
<1.5	5.7(0.16) - 7.6(0.21)	7.6(0.21) - 10.2(0.28)	10.2(0.28)
1.5-3.0	7.6(0.21) - 10.2(0.28)	10.2(0.28) - 12.8(0.35)	12.8(0.35)
>3.0	10.2(0.28) - 12.8(0.35)	12.8(0.35) - 15.2(0.41)	15.2(0.41)

SPARTAN CHARGE HERBICIDE may be surface applied or preplant incorporated (to a depth no greater than 2 inches) from 14 days to 12 hours prior to transplanting tobacco. Incorporating SPARTAN CHARGE HERBICIDE deeper than 2 inches can result in inconsistent weed control.

Broadcast apply the appropriate SPARTAN CHARGE HERBICIDE rate from Table above, in a minimum of 10 gallons per acre of water, to the soil prior to transplanting.

Non-Bedded (Fields where raised beds are NOT formed prior to transplanting) Perform all accepted cultural practices for land preparation, fertilizer/fungicide incorporation, etc. prior to the application of SPARTAN CHARGE HERBICIDE. Once the field has been prepared for planting, SPARTAN CHARGE HERBICIDE may be surface applied or lightly preplant incorporated from 14 days to 12 hours prior to transplanting.

If SPARTAN CHARGE HERBICIDE is surface applied and it is necessary to remove equipment tracks from the field after application but prior to transplanting, any light finishing equipment may be used providing the soil is not disturbed to a depth greater than 2 inches.

If timely cultivations are not performed following a pre-transplant surface application, reduced/unacceptable weed control may occur in the drill.

Bedded (Fields where raised beds ARE formed PRIOR to transplanting) Apply SPARTAN CHARGE HERBICIDE to formed beds as a surface application from 14 days to 12 hours prior to transplanting. If it is customary to drag/knock down beds prior to transplanting, this procedure must be performed prior to the SPARTAN CHARGE HERBICIDE application.

When incorporating prior to bedding, SPARTAN CHARGE HERBICIDE must be thoroughly and uniformly incorporated to a depth no greater than 2 inches to avoid concentrating SPARTAN CHARGE HERBICIDE in the bed.

If initial transplanting fails to produce a uniform stand, tobacco may be replanted. DO NOT re-treat field with a second application of SPARTAN CHARGE HERBICIDE, or any other herbicide containing sulfentrazone. DO NOT re-bed. Re-transplant into previously formed, treated beds.

For broad spectrum and optimum grass weed control a grass herbicide application will be required.

#### **Weeds Controlled**

### When Applied according to directions, SPARTAN CHARGE HERBICIDE will provide control of:

Amaranthus, livid	Pigweed, redroot
Filaree, redstem	Pigweed, smooth
Galinsoga, hairy	Sida, prickly
Lambsquarters, common	Signalgrass, broadleaf
Morningglory, ivyleaf	Smartweed, Pennsylvania
Morningglory, tall	

For information on other weeds not listed above, refer to Weeds Controlled section in this label.

#### **Precautions**

Poor agronomic practices, unfavorable pH soils, diseases, cold weather, excessive moisture, drought or other conditions unfavorable to normal plant growth may adversely effect the growth of tobacco transplants. Weakened transplants may be more susceptible to herbicide response and diseases, particularly under poor drainage or compacted soil conditions or when the soil has been saturated for long periods of time. Contact your State Agricultural Extension Service Specialist for consultation as to the agronomic recommendations suited for your tobacco varieties and local conditions. Temporary stunting of tobacco may occur if transplants are set too shallowly, or if heavy rainfall occurs immediately following transplanting. Splashing of treated soil onto tobacco leaves may cause some localized and inconsequential necrosis. Use sound transplanting practices that insure treated soil will not wash or crust over tobacco plants.

These Crop Specific Use directions are based upon the interactive effects of SPARTAN CHARGE HERBICIDE (sulfentrazone and carfentrazone-ethyl) and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Application Instructions, Maximum Allowable Spartan Charge Herbicide Use per Acre per 12 Month Period, Crop Rotational Intervals, Replanting Instructions, Weeds Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with SPARTAN CHARGE HERBICIDE. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SPARTAN CHARGE HERBICIDE under specific local conditions.

#### Restrictions

Do not use on Shade Grown Tobacco

Do not apply SPARTAN CHARGE HERBICIDE to soils classified as sands containing less than 1% organic matter. Do not use SPARTAN CHARGE HERBICIDE in tobacco seeding beds or greenhouses.

Do not apply SPARTAN CHARGE HERBICIDE post-transplant as unacceptable injury may occur.

Do not perform tillage practices that concentrate SPARTAN CHARGE HERBICIDE into the bed or crop injury may occur.

Do not apply more than 15.2 fl oz/A of SPARTAN CHARGE HERBICIDE (0.37 lb ai sulfentrazone and 0.04 lb ai carfentrazone-ethyl) per twelve-month period.

Do not apply more than 15.2 fl oz/A of SPARTAN CHARGE HERBICIDE (0.37 lb ai sulfentrazone and 0.04 lb ai carfentrazone-ethyl) in a single application.

Do not apply more than 2 applications per year when using reduced application rates equal or less than 7.6 fl oz/A of this product. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE HERBICIDE application.

Do not incorporate greater than 2 inches deep.

## **Apples**

# Blueberry, Bushberry, and Caneberry Grapes (Wine, Raisin, Table and Juice, Amur river grape) Lemons and Oranges

# Pistachios, Walnuts (Black and English)

#### **APPLICATION INFORMATION**

Apply SPARTAN CHARGE HERBICIDE as a uniform broadcast soil application to orchard, grove and vineyard floors and to berry beds and furrows or as a uniform band application directed to the base of the tree trunk and vines or beds in berries to provide preemergence control of weeds in table below. For broadcast applications, make a single application of SPARTAN CHARGE HERBICIDE at 7.7 to 15.2 fl oz per acre (0.21 to 0.41 lb ai/A). Do not apply more than 15.2 fl oz/A (0.41 lb ai/A) per twelve-month period. The twelve-month period is considered to begin when the initial application of SPARTAN CHARGE HERBICIDE is applied.

For improved weed management, SPARTAN CHARGE HERBICIDE can be applied in a tank mixture with other preemergence and postemergence burndown herbicides. Refer to the tank mix partner's labels for additional restrictions, including minimum spray volumes and crops in which they are labeled. Burndown herbicides may include, but are not limited to, glyphosate, paraquat and glufosinate. Do not tank mix with flumioxazin herbicides or with other products containing sulfentrazone.

When applied as a banded treatment (50% band or less), refer to formula in chart below for rate and volume. SPARTAN CHARGE HERBICIDE may be applied twice per year. Do not apply more than 15.2 fl oz/A product (0.41 lb ai/A) on a broadcast application basis per twelve month period. Allow a minimum of 60 days between applications.

For band treatments, apply the broadcast equivalent rate and volume per acre. To determine these:

 Band Width Feet
 X
 Broadcast Rate Per Acre
 =
 Band Rate

 Band Width Feet
 X
 Broadcast Volume Per Acre
 =
 Band Volume

Use ground equipment only. Do not apply using an airblast sprayer or by air. Do not apply using a mechanically pressurized handgun.

Apply a minimum of 10 gallons of spray solution per acre to ensure uniform spray coverage. Nozzle selection must meet manufacturer's spray volume and pressure specifications for preemergence and postemergence herbicide applications. The spray solution should have a pH between 5.0 and 9.0.

Only apply SPARTAN CHARGE HERBICIDE to crops that have been established for one full growing season and are in good health and vigor. Avoid contact of the spray solution on the green bark of trunks of 1-2 year old vines and trees by wrapping the trunk with a nonporous wrap, grow tubes, or wax containers which will keep the spray solution from coming in direct contact with the green tissue. Avoid direct or indirect spray contact with crop foliage and fruit. Best results are obtained when the soil is moist at the time of application and allows for sufficient time for SPARTAN CHARGE HERBICIDE to dry on the weed foliage prior to irrigation or rainfall and the application is followed by at least ½ inch of rainfall or sprinkler irrigation within two weeks after application. Time applications to take advantage of normal rainfall patterns and cool temperatures, especially where drip or micro sprinkler irrigation is used which may not uniformly incorporate the herbicide.

## WEED CONTROL INFORMATION

SPARTAN CHARGE HERBICIDE provides burndown and is a selective soil-applied herbicide for the control of susceptible broadleaf, grass and sedge weeds found in tables below. Adequate moisture of ½ to 1 inch is required within 14 days after application for optimal control. If adequate rainfall is not received in a timely fashion, irrigate with a minimum of ½ inch of water. When activating moisture is delayed, a reduced level of weed control may occur. These escaped weeds can be removed using a burndown herbicide.

Tank mix SPARTAN CHARGE HERBICIDE with a labeled postemergence burndown herbicide and use an appropriate adjuvant when weeds are present at the time of application. Refer to the tank mix partner's product label for the proper use rates by weed sizes. Use the most restrictive label limitations and precautions of the tank mix product(s).

Residual weed control may be reduced when SPARTAN CHARGE HÉRBICIDE is applied where heavy crop trash such as leaves and branches and/or weed residues exists. It is best to rake or blow off the leaves and trash when they fall and prior to the SPARTAN CHARGE HERBICIDE application.

Do not apply after petal fall (trees) or bud break (vines and berries) unless using a hooded or shielded sprayer to ensure that the spray solution will not come in contact with the crop or foliage.

# **Permanent Crop Weed List**

Common Name	Scientific Name
Amaranth, livid	Amaranthus lividus
Amaranth, Palmer	Amaranthus palmeri
Amaranth, Powell	Amaranthus Powell II
Amaranth, spiny	Amaranthus spinosus
Amaranth, spleen	Amaranthus dubius
Anoda, spurred	Anoda cristata
Barnyardgrass, common	Echinochloa crus-galli
Bedstraw, catchweed	Galium aparine
Bindweed, field	Convolvulus arvensis
Bluegrass, annual	Poa annua
Bromegrass species	Bromus spp.
Burclover, California	Medicago polymorpha
Carpetweed	Mollugo verticillata
Cheatgrass	Bromus tectorum
Cheeseweed species	Malva spp.
Chickweed, common	Stellaria media
Copperleaf, hophornbeam	Acalypha ostryeafolia
Copperleaf, Virginia	Acalypha virginica
Crabgrass, large	Digitaria sanguinalis
Crabgrass, smooth	Digitaria ischaemum
Crabgrass, Southern	Digitaria ciliaris
Croton, tropic	Croton glandulosus
Crownbeard, golden	Verbesina encelioides
Cyperus, hedgehog	Cyperus compressus
Daisy, American	Eclipta alba
Devilsclaw	Proboscidea louisiana
Dock, curly	Rumex crispus
Eclipta	Eclipta prostrata
Eveningprimrose, cutleaf	Oenothera laciniata
Fescue, Red	Fetuca rubra
Fiddleneck species	Amsinckia spp.
Filaree, broadleaf	Eroduim botrys
Filaree, redstem	Erodium cicutarium
Filaree, whitestem	Erodium moschatum
Fleabane, hairy	Conyza bonariensis
Flixweed	Descurainia sophia
Foxtail, bristly	Setari verticillata
Foxtail, green	Setaria viridis
Galinsoga, hairy	Galinsoga ciliata
Goosegrass	Eleusine indica
Goosefoot, nettleleaf	Chenopodium murale
Groundcherry, clammy (seedling)	Physalis heterophylla
Groundcherry, cutleaf	Physalis angulata
Groundsel, common	Senecio vulgaris
Henbit	Lamium amplexicaule
Jimsonweed	Datura stramonium
Junglerice	Enchinochloa colona
Knotweed, common	Polygonum arenastrum
Kochia (ALS and Triazine Resistant)	Kochia scoparia
Ladysthumb	Polygonum persicaria
Lambsquarters, common	Chenopodium album
Lettuce, miners	Montia perfoliata
Lovegrass species	Eragrostis spp.
Mallow, common	Malva neglecta wall r.
Mallow, little	Malva parviflora
	i '
Mayweed, Chamomile	Anthemis cotula I.

Common Name	Scientific Name
Morningglory, entireleaf	Ipomoea hederacea integriuscula
Morningglory, ivyleaf	Ipomoea hederacea hederacea
Morningglory, palmleaf	Ipomoea wrightii
Morningglory, purple	Ipomoea turbinata
Morningglory, red	Ipomoea, coccinea L.
Morningglory, scarlet	Ipomoea coccinea
Morningglory, smallflower	Jacquemontia tamnifolia
Morningglory, tall	Ipomoea, purpurea
Mullein, turkey	Eremocarpus setigerus
Mustard, Species	Brassica spp.
Mustard, tumble	Sisybrium altissimum
Nettle, burning	Urtica urens
Nightshade, black	Solanum nigrum
Nightshade, Eastern black	Solanum ptycanthum
Nutsedge, purple	Cyperus rotundus
Nutsedge, yellow	Cyperus esculentus
Orchardgrass	Dactylis glomerata
Panicum, fall	Panicum dichotomiflorum
Pigweed, prostrate	Amaranthus blitoides
Pigweed, redroot	Amaranthus retroflexus
Pigweed, smooth	Amaranthus hybridus
Pigweed, Tumble	Amaranthus albus
Pineapple-weed	Chamomilla suaveolens
Plantain, blackseed	Plantago rugelii decne
Plantain, narrow-leaved	Plantago lanceolata
Poorjoe	Diodia teres
Porophyllum	Porophyllum rederale
Poinsettia, wild	Euphorbia heterophylla
Puncturevine	Tribulus terrestris
Purslane, common	Portulaca oleracea
Redmaids	Calandrinia ciliata
Redweed	Melochia corchorifolia
Radish, Wild Rocket, London	Raphanus raphanistrum
Sandbur	Sisymbrium irio Cenchrus spinifer
	<u> </u>
Sedge, annual Senna, coffee	Carex spp.  Cassia occidentalis
Shepherdspurse Sida, prickly	Capsella bursa-pastoris Sida spinosa
Sida, Southern	Sida acuta
Signalgrass, broadleaf	Brachiaria platyphylla
Smartweed, PA (seedling)	Polygonum pensylvanicum
Smellmellon	Cucumis melo
Sowthistle species	Sonchus spp.
Sprangletop, red	Leptochloa filiformis
Spurge, spotted	Chamaesyce maculate
Starbur, bristly	Acanthospermum hispidum
Stinkgrass	Eragrostis cilianensis
Toadflax, yellow	Linaria vulgaris
Tassleflower, red	Emilio sonchifolia
Thistle, Russian	Salsola kali
Waterhemp, common	Amaranthus rudis
Waterhemp, tall	Amaranthus tuberculatos
Waterprimrose, winged	Ludwigia decurrens
Willowleaf, panicle-leaf	Epilobium brachycarpum
Witchgrass	Panicum capillare

## ANNUAL AND PERENNIAL SEDGE CONTROL INCLUDING NUTSEDGE

SPARTAN CHARGE HERBICIDE applied at 15.2 fl oz/A may provide control or suppression of sedges whether applied preemergence or postemergence. Postemergence application to sedges allows SPARTAN CHARGE HERBICIDE to be taken into the sedge through the foliage as well as soil uptake through the roots. Soil uptake is the major means of uptake by sedges. Good spray coverage is required for optimum control of sedges especially when applying postemergence to the sedges. Use a quality nonionic surfactant (NIS) at the rate of 0.25% v/v when applying postemergence.

When applied as directed, SPARTAN CHARGE HERBICIDE will provide control or suppression of the following sedges.

Common Name	Scientific Name
Kyllinga, green	Kyllinga brevifolia
Kyllinga, false green	Kyllinga gracillima
Nutsedge, purple	Cyperus rotundus
Nutsedge, yellow	Cyperus esculentus
Sedge, cylindrical	Cyperus retrorsus
Sedge, globe	Cyperus globulosus
Sedge, Surinam	Cyperus surinamensis
Sedge, Texas	Cyperus polystachyos

Optimum control of purple nutsedge may be obtained using split applications of SPARTAN CHARGE HERBICIDE. Apply 5 – 7.7 fl oz/A followed by a second application to actively growing nutsedge. Do not exceed the maximum rate of 15.2 fl oz/A (0.41 lb ai/A) twelve month period. SPARTAN CHARGE HERBICIDE symptoms on nutsedge will be observed as reduced nutsedge stands, necrosis, chlorosis, and/or stunting. Optimum control may not be observed until the second year after the original treatment.

## REPLANTING IN NEW OR MATURE ORCHARDS AND VINEYARDS

Delay replanting at least 30 days after SPARTAN CHARGE HERBICIDE applications when replacing trees and vines in established orchards. Use untreated soil when replanting trees and vines.

#### **Precautions**

These Crop Specific Use directions are based upon the interactive effects of SPARTAN CHARGE HERBICIDE Herbicide and the primary soil and environmental factors, which affect its activity on various weed species and tolerance among crops. The user is required to observe the instructions and guidance previously presented under Product Application Instructions, SPARTAN CHARGE HERBICIDE Herbicide Product Use Rates, Rotational Crop Guidelines, Replanting Instructions, Weed Controlled and any other section of this label pertinent to the anticipated crop use. It is important to note that not all varieties or cultivars of a given crop species have been evaluated under treatment with SPARTAN CHARGE HERBICIDE Herbicide. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SPARTAN CHARGE HERBICIDE Herbicide under specific local conditions. FMC does not recommend tank mixing this product with other products containing sulfentrazone or other group 14 herbicides as crop injury may occur.

#### Restrictions

- Use ground equipment only. Do not apply SPARTAN CHARGE HERBICIDE using airblast sprayers or by air. Do not apply using a mechanically pressurized handgun.
- Do not apply more than 15.2 fl oz/A (0.37 lb ai sulfentrazone and 0.04 lb ai carfentrazone-ethyl) per 12 month season.
- Do not apply more than 15.2 fl oz/A product (0.37 lb ai sulfentrazone and 0.04 lb ai carfentrazone-ethyl) in a single application.
- Do not apply more than 3 applications per year when using reduced application rates equal or less than 5.07 fl oz/A of this product.
- The twelve-month period is considered to begin upon the initial SPARTAN CHARGE HERBICIDE application.
- Apply to crops that have been growing for at least one full year and are in good condition.
- Avoid direct or indirect spray contact to foliage and green bark (wrap trunk with non-porous wrap, grow tubes, or wax containers to keep spray solution off of green tissue).
- Do not apply to powdery soils or soils where wind may displace the soil, unless irrigation can be applied immediately after application.
- Follow the most restrictive label of tank mix partners including all references to potential carryover and crop injury warnings or restrictions.
- Pre-harvest Interval (PHI) for Apples only: 14 days
- Pre-harvest Interval (PHI) for Citrus Fruit, Tree Nuts, Grapes, and Berries: 3 days.
- If two banded treatments are made in a growing season, allow a minimum of 60 days between applications; however, do not exceed the seasonal maximum use rate.
- Only use for sites, pests, and application methods specified on this labeling.

# Storage and Disposal

Do not contaminate water, food or feed by storage or disposal.

#### Pesticide storage

Store product in original container only, away from other pesticides, fertilizer, food or feed. Store in a cool dry place and avoid excess heat. Do not store below 32°F degrees.

### In Case of Spill

Avoid contact. Isolate areas and keep out animals and unprotected persons.

#### To Confine Spills

Dike surrounding area, sweep up spillage, Dispose of in accordance with information given under Pesticide Disposal. Wash spill area with water, absorb with sand, cat litter or commercial clay, sweep up and dispose of in an approved manner. Place damaged container in a large holding container, Identify contents per required hazardous waste labeling regulations.

#### **Pesticide Disposa**

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

#### Container Handling

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: (For containers greater than 5 gallons) 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. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. (For containers 5 gallons or less) 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 (or equivalent). Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

Returnable/Refillable Containers - Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents 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.

# CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

Notice: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. 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 manner of use or application, weather or crop conditions beyond the control or FMC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and, to the extent consistent with applicable law, buyer assumes the risk of any such use.

To the extent consistent with applicable law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS. LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

## LABEL TRACKING INFORMATION

Label Code: SL-4144B 080522 05-27-21

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