

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, D.C. 20460

OFFICE OF PREVENTION, PESTICIDES AND TOXIC SUBSTANCES

OCT 2 9 2009

Tarle

Callista O. Chukwunenye FMC Corporation 1735 Market St. Philadelphia, PA 19103

Dear Dr. Chukwunenye:

SUBJECT: Master Label Amendment – Adding Tobacco and Peanuts Spartan Charge Herbicide EPA Registration No. 279-3337 Your Application Dated June 4, 2009

The label amendment referred to above, submitted in accordance with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. A stamped copy is enclosed for your records. Please submit one (1) copy of your final printed labeling before you release the product for shipment. This amended labeling supersedes all previously accepted ones.

Sincerely yours,

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Joanne I. Miller Product Manager (23) Herbicide Branch Registration Division (7505P)

Enclosure

# spartan Charge

For Use Only by Individuals/Firms Certified As Licensed Pesticide Applicators

EPA Reg. No. 279-3337	EPA Est. XXX
Active Ingredient: (1)	By Wt.
Carfentrazone-ethyl*	
Sulfentrazone**	
Other Ingredients:	<u>64.7%</u>
Total:	
*SPARTAN CHARGE Herbicide contains 0.35 active ingredient Carfentrazone-ethyl.	pounds per US gallon of the
** SPARTAN CHARGE Herbicide contains 3.1	5 pounds per US gallon of the

U.S. Patent Pending

# **KEEP OUT OF REACH OF CHILDREN**

# CAUTION

# FIRST AID (2)

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 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 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 (3)**

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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 IS FORMULATED AND PACKAGED IN USA.



## ATTENTION (4)

-Although this label may appear similar to the label on a product you may have used, there may be important label differences. Users must read, understand and strictly follow all label directions, precautions and restrictions.

-It is the user's responsibility to be sure the product is approved for sale or use on the intended crop and for use in the specific geographic area.

-It is the user's responsibility to be aware of and to follow all State or local precautions or restrictions not appearing on this product label.

-Prior to purchase or use of this product, read the Conditions of Sale and Limitation of Warranty and Liability on page 2 of this label. If the terms and conditions are unacceptable, return the product immediately in the original and unopened container.

ACCEPTED

OCT 2 9 2009 Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No.

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## **PRECAUTIONARY STATEMENTS (5)** 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) (6)

Personal Protective Equipment (PPE) (6) Applicators and other handlers must wear: long-sleeved shirt and long pants, chemical resistant gloves made of 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, 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 (7) 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 believed. 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 (8)

Do not use or store near heat or open flame.

AGRICULTURAL USE REQUIREMENTS (9) 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. (10)

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, and shoes plus socks.

# CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY (11)

Notice: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Llability 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. All such risks shall be assumed by Buyer and User, and, to the extent permitted by applicable law, 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.

Crop Liability Disclaimer (12)

This product when used Dry Shelled Peas & Beans and Limas may lead to crop injury, loss, or damage. FMC Corporation recommends that the user and/or grower test product in order to determine its suitability for such intended use. FMC Corporation makes the product available to the user and/or grower solely to the extent the benefit and utility, in sole opinion of the user and/or grower, outweigh the extent of potential injury associated with the use of this product. The decision to use or not to use this backleide muct be made by each lead user and/or grower as use of this product. The decision to use of hot to use this herbicide must be made by each individual user and/or grower on the basis of possible crop injury from SPARTAN CHARGE, the severity of weed infestation, the cost of alternative weed controls and other factors, because of the risk of crop damage all such use is at the user's and/or grower's risk.

# Storage and Disposal (13)

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 32F 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 Disposal

Pesticide UISposal 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 Disposal

Nonrofiliable container. Do not reuse or refill this container. Triple Nonrofiliable container, Do not reuse or relial this container, Indie 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 discosal. Repeat this procedure two more times. (For containers 5 disposal. Repeat this procedure two more times. (For containers 5 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 inclineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

If burned, stay, out of smoke. Refurnable/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 vigorousty or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or finsate collection system. Repeat this rinsing procedure two more times.

## **RESISTANCE MANAGEMENT (14)**

Some weeds are known to develop resistance to herbicides that have been used repeatedly. While the development of resistance is well

understood, it is not easily predicted. Therefore herbicides should be used in conjunction with resistance management strategies in the area. Consult the local or State agricultural advisors for details. If weed resistance should develop in the area, this product used alone may not continue to provide sufficient levels of weed control. If the reduced levels of control cannot be attributed to Improper application timing, unfavorable weather conditions or abnormally high weed pressure, a resistant strain may have developed.

To reduce the potential for weed resistance, use this product in a rotation program with other classes of chemistry and modes of action. Always apply this product at the recommended rates and in accordance with the use directions. Do not use less than recommended label rates alone or in tank mixtures. Do not use reduced rates of the tank mix partner. For optimum performance, scout fields carefully and begin applications when weeds are smaller rather than larger. If resistance is suspected, contact the local or State agricultural advisors.

## **DIRECTIONS FOR USE (15)**

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.

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.

## **GENERAL INFORMATION (16)**

SPARTAN CHARGE is a selective herbicide that provides postemergent contact and soil residual weed control. SPARTAN CHARGE 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 is a 3.5 pound per gallon suspoemulsion containing the active ingredients carfentrazone-ethyl and sulfentrazone. Applications of SPARTAN CHARGE 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 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. In addition to general application information, refer to the specific directions of use for a particular crop/use paltern as set forth below.

## Proper Handling Instructions

This product may not be mixed or loaded within 50 feet of any weils (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.

reservoirs. This setback does not apply to properly capped or pillgged 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 10% 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 capacition equipment on the pad. Containment capacilies as described above shall be maintained at all times. The above specific minimum containment capacities do not apply to vehicles when delivering pesticide shall be maintained at all times. 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.

# GENERAL APPLICATION INSTRUCTIONS

(17) SPARTAN CHARGE 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 or preemergence herbicide to labeled crops. SPARTAN CHARGE 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 recommended rate of this product, for the appropriate soll 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 may be tank-mixed with other herbicides such as glyphosale. Read and follow all manufacturers' label recommendations for the companion herbicide(s) except for specific recommendations on this label. The use of a quality spray specific recommendations on this label. The use of a quality spray adjuvant is required for optimum control of emerged weeds. Refer to the individual crop recommendation sections of this label for specific adjuvant type and use rates.

The residual activity of SPARTAN CHARGE 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, a shallow incorporation: (less than 2") is recommended for destruction of any existing weeds and to incorporate SPARTAN CHARGE. 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 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 applied after crop emergence will cause severe injury to the crop. Poor growing conditions, such as excessive moisture, cool temperatures, and soil comparison or the presence of various pathemate may impact seedling compaction or the presence of various pathogens may impact seedling vigor. Under these conditions, the active ingredients in SPARTAN CHARGE 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 APPLICATIONS (18)

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 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. This response is governed by the SPARTAN CHARGE application rate, various soil factors and inherent crop sensitivity. See individual crop use sections for specific directions on the use of SPARTAN CHARGE for optimum weed control and crop safety results in each crop.

for optimum weed control and crop safely results in each crop. INFLUENCE OF CLAY, SOIL TYPE, AND PH ON SPARTAN CHARGE USE RATES AND CROP RESPONSE Following an application of SPARTAN CHARGE to soil, germinating seeds and seedlings take up SPARTAN CHARGE from the soil solution. The amount of SPARTAN CHARGE in the soil solution, and available for weed uptake, is determined primarily by soil type, organic matter, and soil pH. SPARTAN CHARGE 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 (19)

COARSE	MEDIUM	FINE
Sand	Sandy clay loam	Silty clay loam

Loamy sand Sandy loam	Sandy clay Loam Silt Ioam	Silly clay Clay 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.

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

The total amount of SPARTAN CHARGE 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 in soil solution.

Irrigation with highly alkaline water (high pH) following a SPARTAN CHARGE soil application can also significantly increase the amount of SPARTAN CHARGE 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 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 recommendations for each crop based on the soil type, soll 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 recommendations.

# **MIXING AND LOADING INSTRUCTIONS (20)**

Water or liquid fertilizer solutions may be used as the carrier for SPARTAN CHARGE when applied alone or in tank mixtures with other registered herbicides. A jar test is recommended to determine the compatibility of SPARTAN CHARGE and the fertilizer solution. When mixing with fertilizer solutions it is important to premix SPARTAN CHARGE in clear water. See directions for applying SPARTAN CHARGE alone with liquid fertilizer under section 21

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 Applied Alone Select the proper SPARTAN CHARGE application rate from the following tables in the crop section of this tabel. 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 for acreage being treated by opening the bottle(s) and measuring idirectly 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 spray mixture immediately after mixing. Do not store spray mixture. Do not store spray mixture.

Do not prepare spray mixtures in nurse tanks.

SPARTAN CHARGE Applied in Tank Mix Combination Select the proper SPARTAN CHARGE application rate from TIMING AND METHOD OF APPLICATION section of label. Read and follow 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 toot ladicates the mixing is account with a provided the jar test indicates the mixture is compatible, prepare the tank mixture as failows

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 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 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

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application. Use SPARTAN CHARGE tank mixtures immediately after mixing. Do not store tank mixtures.

Do not prepare spray mixtures in nurse tanks.

SPARTAN CHARGE Applied Alone with Liquid Fertilizer When adding SPARTAN CHARGE to a liquid fertilizer carrier, SPARTAN CHARGE should be premixed in clear water before adding to fertilizer solution. Adding SPARTAN CHARGE 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 slurry to the spray tank. Use a minimum of one gallon of water for each container of SPARTAN CHARGE. 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 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 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. Small quantities should be tested for compatibility by the following procedure before mixing in full spray tank quantities. 1) Add 1 pint of fertilizer solution in a quart [ar. 2) Add the appropriate amount of herbicide based on the MIXTURE COMPATIBILITY table before. 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 iar and shake well

 Close jar and shake well.
 Watch mixture for several seconds, again after 5 minutes and again after 30 minutes. If herbicide/fentilizer combination remains mixed or aner so minutes, in neroicide/remitizer combination remains mixed of 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.

Herbicide Type	Herbicide Field Use Rate	Amount Herbicide Added Per Pint
Wettable Powder or Dry		0.75 400 400
Flowable	U.5 pound	0.75 teaspoon
	1.0 pound	1.50 teaspoons
	2.0 pounds	3.00 teaspoons
	3.0 pounds	4.50 teaspoons
Emulsified Concentrates	1.0 pint	0.5 teaspoon
Liquid Flowables	1.0 quart	1.0 teaspoon
	2.0 quarts	2.0 teaspoons
	3.0 quarts	3.0 teaspoons

## **MIXTURE COMPATIBILITY TESTING**

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

## Adjuvant Recommendation

Adjuvant Recommendation 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 is tank-mixed with glyphosate. Read and follow all applicable use directions, precautions and restrictions on the surfactant label.

## **APPLICATION INFORMATION (21) Ground Application**

Ground Application Use a boom and 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 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. Use higher spray volumes when there is a dense weed population. Thorough coverage is essential for control of susceptible broadieaf 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 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 applications must be drained and thoroughly cleaned with water CHARGE ammonia before being used to apply other products. See Spray Clean-out Section 23 on page 6. Avoid all direct, and/or Indirect spray contact with non-target plants. Do not apply near desirable vegetation. Allow adequate distance between larget area and desirable plants to minimize

exoosure.

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

Aerial Application SPARTAN CHARGE may be applied by air using properly calibrated nozzle types and arrangements that will provide optimum coverage while producing minimal amounts of fine droplets. Apply sufficient spray volume to achieve adequate coverage. Apply a minimum of five (5) gallons of finished spray per acre. Do not apply when wind speed favors drift beyond the area intended for treatment.

## **Runoff and Wind Erosion Precautions**

Do not apply under conditions which favor runoff or wind erosion of soil containing SPARTAN CHARGE 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 fail 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 REDUCTION ADVISORY (22) AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

The interaction of many 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.

Where States and local governments have more stringent regulations, they must be observed.

### Droplet Size Information

Reduce drift potential by applying large droplets. The optimum drift management strategy is to apply the largest droplets that will 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, Comparative and Humbdith and Tomparative Javorabane) Temperature and Humidity and Temperature Inversions).

VMD - VMD is the expression of the droplet size of the spray cloud. The VMD value means that 50% of the droplets are larger than the expressed value and 50% of the droplets are smaller than the expressed value. Optimum spray clouds should be 450 microns with fewer than 10% of the droplets being 200 microns or smaller.

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 exceed the nozzle manufacturer's recommended pressures. 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 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.

Application Height - Making applications at the lowest height practical reduces exposure of spray droplets to evaporation and wind movement.

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

Wind – Drift potentials are lowest between wind speeds of 3 to 10 miles per hour. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Applications in wind conditions outside of this range could increase the risk of off-target effects and should be avoided. Note that local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity - When making applications in conditions of 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 during temperature inversions because the drift potential is high. Temperature inversions restrict vertical alr 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 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 a smoke generator. Smoke that layers and moves laterally in a concentrated clod (under low wind conditions) indicate an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas – Applications should be made 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).

and non-target crops). Off-Target Movement of SPARTAN CHARGE – Drift of dilute spray mixtures containing SPARTAN CHARGE 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 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 drift mixtures. Depending on concentration of the spray solution and droplet size (effectively determining the concentration of SPARTAN CHARGE) 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. Faiture to follow these guidelines and environmental prohibitions that then result in oft-target movement or drift of SPARTAN CHARGE on to unintended crops or plants, irrespective of severity, constitutes misapplication of shartARGE. ODE AVERATINE CHARGE.

SPRAY EQUIPMENT CLEAN-OUT (23) After spraying SPARTAN CHARGE 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 manufacturers directions for use). Fill the tank to capacity and operate the sprayer for 15 minutes to flush hoses, boom, and nozzles.

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

Should small quantities of SPARTAN CHARGE 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 USE PER ACRE PER 12 MONTH **PERIOD\* (24)**

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

Сгор	Ounces SPARTAN CHARGE Per Acre	Pounds Active SPARTAN CHARGE** Per Acre
Com	11.5	0.31
Dry peas & beans	10.2	0.28
Fallow	10.2	0.28
Limas (succulent)	7.6	0.21
Soybeans	8.5	0.23
Sunflowers	10.2	0.28

The total allowers 1 0.2 1 0.28 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 application. \*\* Based on total active carfentrazone-ethyl and sulfentrazone

# **RATE CONVERSION CHART (25)**

SPARTAN CHARGE		CARFENTRAZONE- ETHYL		SULFENTRAZONE	
Product oz/A	ib ai*	Product oz/A**	lb ai	Product oz/A8**	ib 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
8.5	0.23	1.5	0.02	6.7	0.21
10.2	0.28	1.8	0.03	8.0	0.25
15.25	0.41	2.7	0.04	12.0	0.37

\* Total pounds active of sulfentrazone + carfentrazone-ethyl

\*\* Based on Aim 2EC formulation

\*\*\* Based on SPARTAN 4F formulation

CROP ROTATIONAL INTERVALS (26) Shown below are the minimum intervals in months from the time of SPARTAN CHARGE application until SPARTAN CHARGE treated soil may be replanted with the crops listed. When SPARTAN CHARGE is tank mixed with other herbicide(s), refer to all those tables 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 a successful field bloassay.

The field bloassay 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 soll types. If crop responses are not observed, the crop may be planted the following year.

CROP	INTERVAL (Months)
Alfalfa	12
Barley	4
Cabbage (transplant only)	Anytime
Canola, Crambe	_24
Corn, field	Anytime
Corn, pop	Anylime
Com, seed	Anytime
Corn, sweet	4
Cotion	18
Dry Shell Peas & Beans	Anytime
Horseradish .	Anytime
Lima Beans	Anytime
Mint	Anytime
Peanuts	Anytime
Potatoes	Anytime
Rice	10
Dya	4

## **CROP ROTATION INTERVALS\***

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Sorghum	10**	
Soybeans	Anytime	
Sugar Beets	36	
Sugarcane	Anytime	
Sunflowers	Anytime	
Sweet Potatoes	12	
Tobacco	Anytime	
Triticale	4	
Turf	Anytime	
Wheat	4	

\* For all other crops not listed, the rotation interval is a minimum of 12 months. \*\* 18 month rotation for rates above 10.2 fluid ounces per acre

## Hybrid Corn Seed Production

Corn inbred lines grown for hybrid seed production may be injured in the growing season following an application of SPARTAN CHARGE. Inbred lines should be thoroughly tested for crop tolerance before rotating to production scale acreages. FMC will not accept responsibility for any crop injury on field corn grown for seed following an application of SPARTAN CHARGE.

**REPLANTING INSTRUCTIONS (27)** If the initial planting of labeled crops fails to produce a uniform stand, only labeled crops for SPARTAN CHARGE or the tank mix partner; whichever is most restrictive, may be replanted. Do not retreat fields with a second application of SPARTAN CHARGE 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.

GENERAL POSTEMERGENT WEEDS CONTROLLED Pre-Plant Burndown (28) (Refer to Individual crop sections for preemergent weeds controlled).

When used as directed, SPARTAN CHARGE will provide postemergent control of the following weeds (less than 3 inches tall) as specified:

Weeds Controlled	SPARTAN CHARGE use rate fluid ounce (lb al) per acre		
Lambsquarters (up to 3 inches tall)	· · · · · · · · · · · · · · · · · · ·		
Morningglory, Ivyleaf (up to 3 leaves)			
Morninggiory, pitted (up to 3 leaves)	3.75 (0.10)		
Nightshade, Eastern black			
Pigweed, redroot	)		
Velvetleaf			
Waterhemp (up to 2 inches tall)			
Weeds Controlled	SPARTAN CHARGE use rate fluid ounce (Ib al) per acre		
All the weeds controlled at 3.75 fluid ounces per acre (0.10 lb/acre) plus the weeds listed below:			
Cheeseweed	]		
Filaree, redstem			
Flixweed			
Lambsquarters, common	] .		
Mallow, common	4.75 (0.13)		
Morninggiory, entireleaf	•		
Morninggiory, lvyleaf			
Morningglory, pitted	]		
Morningglory, scarlet			
Nightshade, hairy			
Pennycress, field	_		
Pigweed, smooth			

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Sesbania, hemp	]
Smartweed (PA), seedling	
Tansymustard	
Waterhemp	
Weeds Controlled	SPARTAN CHARGE use rate fluid ounce (lb ai) per acre
All the weeds controlled at 4.75 fluid ounces per acre (0.13 lb/acre) plus the weeds listed below:	
Amaranth, spiny	
Anoda, spurred	
Bedstraw, catchweed	
Buffalobur	
Carpetweed	
Cocklebur	
Copperleaf, hophornbeam	)
Cotton, GMO varieties	J
Cotton, volunteer	1
Dayflower	]
Eclipta	]
Fiddleneck, coast	6.0 (0.16)
Groundcherry, smooth (seedling)	
Groundcherry, Wright's	]
Jimsonweed	]
Kochia	
Rocket, London	]
Morningglory, lvyleaf	· ·
Morningglory, tall	1
Nightshade, American black	
Nightshade, black	
Sheperdspurse	
Spiderwort, tropical	
Thistle, Russian	
Wallflower, bushy	· .
Weeds Controlled	SPARTAN CHARGE use rate fluid ounce (Ib ai) per acre
All the weeds controlled at 6.0 fluid ounces per acre (0.16 lb/acre) plus the weeds listed below:	
Amaranth, Palmer	1
Ammania, purple	1
Buckwheat, wild	
Burclover	
Filaree, broadleaf	-
Filaree, white	8.5 (0.23)
Lettuce, prickly	1
Mallow, Venice (up to 2 inches tall)	
Meadowfoam	1
Mustard spp.	1
Redmalds	1
Spurry, corn	
Spurry, clover	1

FALLOW SYSTEMS (29) (see Table 2 for recommended application rates).

SPARTAN CHARGE may be used in fallow cropping systems only where crops are seeded and harvested on alternate years for soll moisture conservation using rates recommended in Table 2. Follow crop rotational restrictions when replanting following SPARTAN CHARGE applications.

Table 2

SPARTAN CHARGE Use Rate Table				
	Failow Applications			
Broadcast Rate	Fluid Ounces	SPARTAN CHAR	GE per acre	
	Soll Texture			
% Organic Matter	Coarse	Medium	Fine	
<1.5	3.75 - 5.0	3.75 - 5.75	5.0 - 6.5	
1.5-3.0	3.75 - 5.75	5.0 - 7.75	5.75 - 8.5	
>3	5.0 - 7.75	5.75 - 8.5	6.5 - 10.2	
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 recommendation

Adjuvant recommendation 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 plnts/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 armonium 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. 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, gluifosinate, or paraquat. When tank mixing SPARTAN CHARGE with other products be sure the SPARTAN CHARGE 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 all label precautions, instructions, and rotational cropping restrictions.

## Precautions

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Precautions These Crop Specific Use directions are based upon the Interactive effects of SPARTAN CHARGE and the primary soll 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 General Application Instructions, General SPARTAN CHARGE 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. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SPARTAN CHARGE 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. 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. prevent weed escapes.

When used as directed, SPARTAN CHARGE will provide preemergent control of the following weeds (refer to section 28 for postemergent weeds controlled):

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

## Restrictions

Do not apply more than 10.2 fluid ounces per twelve-month period. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE application.

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

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

# CORN (Field Corn, Seed Corn, Popcorn)

(30) Preplant Burndown, Early Preplant, and Preemergence Applications (see Table 3 for recommended application rates). Apply SPARTAN CHARGE alone or with other herbicides or liquid Apply SPARTAN CHARGE alone or win other herbicides or liquid fertilizers as a burndown or preemergence treatment prior to emergence of corn to control or suppress weeds using rates recommended in table 3. Properly closed seed furrows are required when applying at planting time or before seed germination. When planting into soil treated preplant with SPARTAN CHARGE, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum weed control. Apply SPARTAN CHARGE using the rates in Table 3 below.

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 listed in Table 3. Optimum broad-spectrum control of annual and perennial weeds requires a tank mix with a broad-spectrum burndown herbicide such as glyphosate, glutosinate, or paraquat. When tank mixing SPARTAN CHARGE with other products be sure the SPARTAN CHARGE is added to the spray tank water first. For specific mixing instructions refer to the Mixing and Loading instructions section of this label.

SPARTAN Preplant Burr	CHARGE Us down, Early Prej	e Rate Table ( blant, and Preeme	Corn) rgence
Broadcast Rate	Fluid Ounces	SPARTAN CHAF	GE per acre
	Soil Texture		
% Organic Matter	Coarse	Medium	Fine
<1.5	3.75 - 5.75	3.75 - 5.75	5.0-6.0
1.5 - 3.0	3.75 - 5.75	5.0 - 6.0	5.75-6.0
>3.0	5.0 - 6.0	5.75 - 6.0	6.0

\*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 recommendation

Adjuvant recommendation 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 perfoleum 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. MSO

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

### Precautions

Table 3

These Crop Specific Use directions are based upon the Interactive effects of SPARTAN CHARGE and the primary soll and environmental ettects of SPARTAN CHARGE and the primary soll 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 General Application Instructions, General SPARTAN CHARGE 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. Consult university or extension weed management specialists for arditional university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SPARTAN CHARGE 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.

When used as directed, SPARTAN CHARGE will provide preemergent control of the following weeds (refer to section 278

for postemergent weeds controlle	ed):
BROADLEAVES	
Amaranth, Palmer	Amaranthus palmeri
Amaranth, spiny	Amaranthus, spinosus
Amaranth, spleen	Amaranthus dublus
Jimsonweed	Datura stramonium
Kochia	Kochia scoparia
Lambsquarters, common	Chenopodium album
Morningglory, Enlireleaf	Ipomea hederacea integriusc
Morningglory, Ivyleaf	Ipomea hederacea hederacea
Morningglory, Palmleaf	Ipomea Wrightii
Morningglory, purple	Ipomea turbinata
Morningglory, red	Ipomea coccinea
Morningglory, scarlet	Ipomea hederifolia
Morninggiory, Smallflower	Jacquemontia tamnifolia
Morningglory, tall	<ul> <li>Ipomea, purpurea</li> </ul>
Nightshade, black	Solanum nigrum
Nightshade, Eastern black	Solanum americanum
Pigweed, redroot	Amaranthus retroflexus
Pigweed, smooth	Amaranthus hybridus
Thistle, Russian	L'actuca 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 seeding is close to the soil surface, as undesirable crop response may occur.

Do not apply more than 6.0 fluid ounces per twelve-month period. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE 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 runoff from rain or snowmelt that may occur following application.

SOYBEANS (31) Preplant Burndown, Early Preplant, and Preemergence Applications (see Table 4 for recommended application rates). Apply SPARTAN CHARGE 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 recommended in Table 4. Properly closed seed furrows are required when applying at planting time or before seed germination. When planting into soil treated preplant with SPARTAN CHARGE, 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 with other products, be sure the SPARTAN CHARGE is added to the spray tank water first. For specific mixing instructions refer to the Mixing and Loading instructions section of this label.

SPARTAN C	HARGE Use I	Rate Table (So	oybeans)
- Topian Da			
Broadcast Rate	Fluid Ounces	SPARTAN CHAR	GE per acre
		Soil Texture	
% Organic Matter	Coarse	Medium	Fine
<1.5	5.75 - 7.75	7.75 - 8.5	8.5
1.5-3	7.75 - 8.5	8.5	8.5
	0.6	OF	0 5

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

SPARTAN CHARGE is especially effective against a wide range of economic broadleaf weeds. The same processes that SPARTAN CHARGE 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 viil be poor.

Whe	n used	as	directed,	SPARTA	N CH/	ARGE	will	provi	de
pree	mergent	cont	rol of the	following	weeds	(refer	to se	ection	28
for p	ostemer	gent	weeds con	trolled):					

BROADLEAVES	
Amaranth, Palmer	Amaranthus palmeri
Amaranth, spiny	Amaranthus, spinosus
Amaranth, spleen	Amaranthus dubius
Jimsonweed	Datura stramonium
Kochla	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	lpomea, 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 Herblcide after crop emergence, or if the seeding is close to the soil surface, as undesirable crop response may occur.

Do not apply more than 8.5 fluid ounces per acre of SPARTAN CHARGE per twelve-month period. The twelve-month period is considered to begin upon the Initial SPARTAN CHARGE 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 runoff from rain or snowmelt that may occur following application. Do not apply after crop seed germination.

# SUNFLOWERS (32)

Fall Application, Preplant Burndown, Early Preplant, and Preemergence Applications (see Table 5 for recommended application rates)

Fail Application SPARTAN CHARGE may be applied in the fail following crop harvest or in existing failow fields to control or suppress weeds the following season. The SPARTAN CHARGE Rotational Crop Guidelines in Section 25 must be followed if crops are planted the next season. SPARTAN CHARGE should be applied to the harvested crop stubble or soil surface without incorporation. Molsture in the form of rain or snow will move and activate the product. Do not mechanically incorporate in the fail or spring after application because this activity may destroy the herbicide barrier and weed escapes can occur. Do not apply to frozen solls to prevent SPARTAN CHARGE runoff from rain or snow that may occur following application. SPARTAN

CHARGE 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 reaching the soil surface, a separate burndown application prior to the application of SPARTAN CHARGE will be required. Use full, recommended rates of burndown herbicides in combination with SPARTAN CHARGE, or sequential applications as needed. Higher aerial spray volumes are required when there is a dense weed population or canopy.

SPARTAN CHARGE can be tank mixed with other herbicides. Observe 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 Preomorgence Applications

Apply SPARTAN CHARGE alone or with other herbicides or liquid Apply SPARTAN CHARGE alone of with other herbicides of 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 recommended in table 5. Properly closed seed furrows are required when applying at planting time or before seed germination. When planting into soil treated preplant with SPARTAN CHARGE, minimize soil disturbance to maintain the herbicide barrier on the soil surface to achieve maximum used costol 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 with other products be sure the SPARTAN CHARGE is added to the spray tank water first. For specific mixing instructions refer to the Mixing and Loading instructions section of this label.

Ta	h	a	5
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HARGE Use F Burndown, Early F	Rate Table (Su Preplant, and Pree	unflowers) emergence
Fluid Ounces	SPARTAN CHAR	GE per acre
	Soil Texture	
Coarse	Medium	Fine
3.0 - 3.75	3.75 - 5.75	5.0-6.5
3.75-5.75	5.0 - 7.75	5.75 - 8.5
	HARGE Use F Burndown, Early F Fluid Ounces Coarse	HARGE Use Rate Table (St Burndown, Early Preplant, and Pred Fluid Ounces SPARTAN CHAR Soli Texture Coarse Medium

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

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. SPARTAN CHARGE use rates should be reduced or SPARTAN CHARGE should not be used in those areas. 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. diseases may also cause undesirable crop response.

These Crop Specific Use directions are based upon the Interactive effects of SPARTAN CHARGE 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 among crops. The user is required to observe the instructions and guidance previously presented under General Application Instructions, General SPARTAN CHARGE 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. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent Information on SPARTAN CHARGE under specific local conditions. 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 will provide preemergent control of the following weeds (refer to section 28 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 fluid ounces per acre of SPARTAN CHARGE per twelve-month period. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE 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 runoff from rain or snowmelt that may occur following application.

DRY SHELLED BEANS AND PEAS (33) Dried cultivars of bean (Lupinus); bean (Phaseolus)(includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean, tepary bean); bean (Vigna) (includes adzuki bean, blackeyed pea, catjang, cowpea, crowder pea moth bean, lentii, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar, lab lab bean; pea (Pisum) (includes dry field pea) and pigeon pea (see Table 6 for recommended application rates).

Fail Applications SPARTAN CHARGE may be applied in the fall as a preplant treatment to control or suppress weeds prior to planting the following spring. SPARTAN CHARGE should be applied to the stubble or soil surface and allow molsture from rainfall or snow to move the product into the and allow molsture 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 runoff from rain or snow mell that may occur following application. SPARTAN CHARGE 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 application, use a burndown herbicide such as glyphosate or paraquat at the full-labeled rate in combination with SPARTAN CHARGE or spit application as needed. Select the appropriate rate from the table below within the correct soil type and organic matter range. When applying SPARTAN CHARGE 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

Preplant Burndown, Early Preplant, and Preemergence Applications

Apply SPARTAN CHARGE alone or with other herbicides or liquid Apply SPARIAN CHARGE 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, 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, glutosinate, or paraquat. When tank mixing SPARTAN CHARGE with other products be sure the SPARTAN CHARGE is added to the spray tank water first. For specific mixing instructions refer to the Mixing and Loading Instructions section of this label.

## Table 6

# SPARTAN CHARGE Use Rate Table (Dry Shelled Beans and Peas)

Fall, Preplant Burndown, Early Preplant, and Preemergence

Fluid Ounces SPARTAN CHARGE per acre\* Broadcast Rate Soll Texture % Organic Coarse Medium Fine Matter 3.0 - 3.75 <1.5% 3.75 - 5.753.75 - 5.75 1.5-3.0 % 3.75 - 5.75 5.0 - 7.75 5.75 - 7.75 >3.0 % 5.0 - 7.75 5.75 - 7.75 6.5 - 10.2Refer 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

Read Crop Liability Disclaimer (section 12) before using SPARTAN CHARGE in dry peas and beans. Best results are achieved with SPARTAN CHARGE 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 1.5%) and pH of 7.8 or higher, or on highly eroded soils (such as hilltops), or in areas of calcareous outcroppings. SPARTAN CHARGE use rates should be reduced or SPARTAN CHARGE should not be used in those areas. 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.

diseases may also cause undesirable crop response. These Crop Specific Use directions are based upon the interactive effects of SPARTAN CHARGE 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 General Application Instructions, General SPARTAN CHARGE 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. Consult university or extension weed management specialists for additional information on specific local varieties or cultivars and any other pertinent information on SPARTAN CHARGE 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 I dry conditions persist throughout the growing season; erratic preemergant 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 will provide preemergent control of the following weeds (refer to section 28 for postemergent weeds controlled):

tor posternergent weeus contro	nieu):
Amaranth, Palmer	Pigweed, red root
Filaree, redstem	Pigweed, smooth
Kochia (ALS and Triazine Resistant)	Sida, prickly
Lambsquarters, common	Thistle, Russian
Morninggiory, 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 fluid ounces per acre per twelve-month period. The twelve-month period is considered to begin upon the Initial SPARTAN CHARGE 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 runoff from rain or snow melt that may occur following application.

# LIMA BEANS, SUCCULENT (34)

Preplant Burndown, Early Preplant, and Preemergence Applications (see Table 7 for recommended application rates). Apply SPARTAN CHARGE 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, 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 8. 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 with other products be sure the SPARTAN CHARGE is added to the spray tank water first. For specific mixing instructions refer to the Mixing and Loading instructions section of this label (section 20). label (section 20).

Table 7

## **SPARTAN CHARGE Use Rate Table** (Lima Beans, Succulent)

Preplant Burndown, Early Preplant, and Preemergence

Broadcast	Fluid Ounces SPARTAN CHARGE per acre*		
Rate			
		Soil Texture	- <del></del> ,
% Organic Matter	Coarse	Medium	Fine
<1.5%	3.0 - 5.0	3.75 - 7.75	3.75 - 7.75
1.5 - 3.0 %	3.75 - 5.75	5.0 - 7.75	5.75 - 7.75
1000	EA 775	F 7F 776	0.0 775

>3.0 % 5.0 - 7.75 5.75 - 7.75 6.5 - 7.75 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 to coarse textured soils, it is recommended that growers allow a minimum of 7-14 days from application to planting. Best results are achieved with SPARTAN CHARGE 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. SPARTAN CHARGE use rates should be reduced in those areas. 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 disponse moviale aguing understrate growing conditions diseases may also cause undesirable crop response.

diseases may also cause undesirable crop response. These Crop Specific Use directions are based upon the interactive effects of SPARTAN CHARGE and the primary soll 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 General Application Instructions, General SPARTAN CHARGE 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. Consult university or extension weed management specialists for additional university or extension weed management specialists for additional information on specific local varieties or cultivars and any other perlinent information on SPARTAN CHARGE 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 will provide preemergent control of the following weeds (refer to section 28 for postemergent weeds controlled):

Copperleaf, hophornbeam	Pigweed, redroot
Morninggiory, entireleaf	Pigweed, smooth
Morningglory, lvyleaf	

## 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 fluid ounces per twelve-month period. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE 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 runoff from rain or snow melt that may occur following application.

## TOBACCO (Burley, Flue-Cured and Dark) (35)

Tablo 8 Spartan Charge Use Rate Table (Tobacco) Preemergence and Preplant Incorporated Applications

Broadcast Rate	Fluid Ouncos Spartan Ch	argo per acro
Soll Toxturo		
% Organic Matter		Fine

	Coarso	Medium	Fino
<1.5	3.75 - 5.0	3.75 - 5.75	5.0-6.5
1.5-3.0	3.75 - 5.75	5.0 - 7.75	5.75-8.5
>3	5.0 - 7.75	5.75 - 8.5	7.75 - 10.2

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.

Spärtan Charge may be surface applied or preplant incorporated, (to a depth no greater than 2 inches) from 14 days to 12 hours days prior to transplanting tobacco. Incorporating Spartan Charge deeper than 2 inches can result in inconsistent weed control. Broadcast apply the appropriate Spartan Charge rate from Table 9 above in a minimum of 10 gallons per acre of water, to the soil prior to transplation.

transplanting

Non-Bedded (Fields where raised beds are NOT formed prior to transplanting)

transplanting) Perform all accepted cultural practices for land preparation, fertilizer/fungicide incorporation, etc. prior to the application of Spartan Charge. Once the field has been prepared for planting, Spartan Charge may be surface applied or lightly preplant incorporated from 14 days to 12 hours prior to transplanting. If Spartan Charge 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 bods ABE formed PBIOD to

the drill. Bedded (Fleids where raised bods ARE formed PRIOR to transplanting) Apply Spartan 4F 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 application. When incorporating prior to bedding, Spartan Charge must be thoroughly and uniformly incorporated to a depth no greater than 2 inches to avoid concentrating Spartan Charge in the bed. If Initial transplanting fails to produce a uniform stand, tobacco may be replanted. DO NOT re-freat field with a second application of Spartan Charge, or any other herbicide containing suffentrazone. DO NOT re-bed, Re-transplant into praviously formed, treated beds. For broad spectrum and oplimum grass weed control a grass herbicide application will be required.

Weeds Controlled

When Applied according to provide control of:	to directions	, Spartan Chargo	will
Filaree, redstem			
Amaranthus, livid			
Galinsoga, hairy			
Lambsquarters, common			
Morninggiory, hyleaf			
Morningglory, tail			
Pigweed, redroot			
Pigweed, smooth			
Slda, prickly			
Signalgrass, broadleaf			
Smartweed Pennsylvania			

# PEANUTS (36) Proplant Burndown

Proplant Burndown, Early Preplant, and Preemorgenco Applications (see Table 4 for recommonded application rates). Apply SPARTAN CHARGE alone or with other herbicides or liquid

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Apply SPARIAN CHARGE alone or with other heroicides or liquid fertilizers as a burndown or preemergence treatment prior to planting or within 3 days after planting peanuls to control or suppress weeds using rates recommended in Table 9. Properly closed seed furrows are required when planting into soil treated preplant with SPARTAN CHARGE, 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 hetblcide such as glyphosate, glufosinate, or paraquat. When tank mixing SPARTAN CHARGE with other products, be sure the SPARTAN CHARGE is added to the spray tank water first. For specific mixing instructions refer to the Mixing and Loading Instructions section of this label.

Tablo 9

# **SPARTAN CHARGE Use Rate Table (Peanuts)**

Fall, Preplant Burndown, Early Preplant, and Preemergence

Broadcast	Fluid Ouncos SPARTAN CHARGE por acro		
Rate			
		Soll Texture	
% Organic Matter	Coarse	Medium	Fino
<1.5%	3.0-3.75	3.75 - 5.75	3.75 - 5.75
1.5-3.0 %	3.75 - 5.75	5.0 - 7.75	5.75 - 7.75
>3.0 %	5.0-7.75	5.75 - 7.75	6.5 - 10.2
Defendentling			UL OOLDOE

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.

Procautions

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

SPARTAN CHARGE is especially effective against a wide range of economic broadleaf weeds. The same processes that SPARTAN CHARGE affects in these weeds can, under certain conditions, be affected in peanuls. These conditions include high pH (7.6 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 peanuls are often observed as stuffing 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 normat growing conditions. Thorough coverage is ossential 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 will provide preemergent control of the following weeds (refer to section 28 for postamergent weeds controlled):

BROADLEAVES	
Amaranth; Palmer	Amaranthus palmeri
Amarenth, spiny,	Amaranthus, spinosus
Amaranth, spleen	Amaranihus dubius
Jimsonweed	Datura stramonium
Kochla	Kochia scoparla
Lambsquarters, common	Chenopodium album
Morningglory, Entireleaf	Ipomea hederacea integriusc
Momingglory, ivyleaf	Ipomea hederacea hederacea
Morningglory, Palmleaf	Ipomea Wrightil
Morninggiory; purple	Ipomea turbinata
Morningglory, red	Ipomea coccinea
Momingglory, scarlet	Ipomea hederifolia
Morninggiory, Smallflower	Jacquemontia temnifolia
Morningglory, tall	lpomea, purpurea
Nightshade, black	Solanum nigrum
Nightshade, Eastern black	Solanum americanum
Pigweed, redroot	Amaranthus retrollexus
Playeed, smooth	Amaranthus hybridus'

Smartweed, PA (seedling)	Polygonum pensylvanicum
Thistle, Russian	Lactuca serriola
Waterhemp, common	Amaranthus rudis
Waterhemp, tall	Amaranthus tuberculatos
SEDGES	
Nulsedge, purple	Cyperus rotundus
Nutsedge, yellow	Cyperus esculentus
Sedge, annual	Cares.spp:

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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 noil apply more than 10.2 fluid ounces per acre of SPARTAN CHARGE per twelve-month period. The twelve-month period is considered to begin upon the initial SPARTAN CHARGE application. Do not use on solls classified as sand, which have less than 1% organic matter.

Do not apply to frozen soils or existing snow cover to prevent SPARTAN CHARGE runolf from rain or snowmell that may occur following application. Do not apply after crop seed germination.

# LABEL TRACKING INFORMATION (37)

Label Code: Spartan Charge 10-15-08

Replaces Label Code: EPA Approval Date: Philadelphia, PA 19103 USA FMC Corporation Agricultural Products Group 1735 Market Street Philadelphia PA 19103 215-299-6000

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