



U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Pesticide Programs
Registration Division (H7595C)
401 "M" St., S.W.
Washington, D.C. 20460

EPA Reg. Number:
62719-288

Date of Issuance:
MAR 8 2000

NOTICE OF PESTICIDE:
 Registration
 Reregistration

Term of Issuance:
Conditional

Name of Pesticide Product:
Strongarm

under FIFRA, as amended

Name and Address of Registrant (include ZIP Code):

Dow AgroSciences
9330 Zionsville Road
Indianapolis, IN 46268-1054

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered/reregistered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA sec. 3(c)(7)(A) provided that you:

1. Submit and/or cite all data required for registration/reregistration of your product under FIFRA sec. 3(c)(5), 3(g), or 4 when the Agency requires all registrants of similar products to submit such data.
2. Submit the following data and information by February 28, 2001:
 - a. A new ames mutagenicity test conducted at adequate dose levels.
 - b. Additional information concerning the metabolism study for poultry and eggs and the rotational crop study. The storage time between sampling and analysis for poultry, eggs, and rotational crops must be reported. If the storage time was longer than 6 months, adequate data concerning the stability of residues during the storage period between collection and final analysis must be provided.
 - c. Analysis of plant metabolism or field trial samples of peanut and soybean for 2,6-dichloroaniline (2,6-DCA) using a validated method at the parts per billion level. The storage time between sampling and analysis for 2,6-DCA must be reported. If the storage time was longer than 6 months, adequate data concerning the stability of 2,6-DCA residues during the storage period between collection and final analysis must be provided.

Signature of Approving Official:

Jan M. Shaw

Date:

March 8, 2000

3. To reduce the risk to nontarget plants, the labeling must be revised at the next label printing and prior to February 28, 2001 to add following precautionary statements:

Avoid all direct or indirect contact with nontarget plants.

Do not apply near desirable vegetation and allow adequate distance between target area and desirable plants to minimize exposure.

Do not apply under conditions which favor runoff or wind transport of soil containing diclosulam to nontarget 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, the soil surface should first 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 water from the first flood or furrow irrigation from treated fields to irrigate nontarget crops unless there has been at least ½ inch of rainfall during the period between application and first irrigation.

Do not apply when weather conditions favor drift to nontarget sites. To minimize spray drift to nontarget areas:

- Use low pressure application equipment capable of producing a large droplet spray.
- Do not use nozzles that produce a fine droplet spray.
- Minimize drift by using sufficient spray volume to ensure adequate coverage with large droplet size sprays.
- Keep ground-driven spray boom as low as possible above the target surface.
- Spray only when there is no wind or when wind speed is low. Do not apply when wind is gusting or when wind speed is greater than 10 mph.

4. The Agency requests additional positive control data and untransformed motor activity data for the acute neurotoxicity study and the 1-year neurotoxicity study .

5. Submit two copies of the final printed label for the record.

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EPA Reg. No. 62719-288

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 6(e). Your release for shipment of the product constitutes acceptance of these conditions.

A stamped copy of the label is enclosed for your records.

If you have any questions about this letter, please contact Tobi Colvin-Snyder at 703-305-7801.

Jim Tompkins
Product Manager (25)
Herbicide Branch
Registration Division (7505C)

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(Base label):

(logo) Dow AgroSciences LLC

Strongarm*

For Broadleaf Weed Control in Peanuts

Active Ingredients:

diclosulam: N-(2,6-dichlorophenyl)-5-ethoxy-7-fluoro[1,2,4]triazolo-[1,5-c]pyrimidine-2-sulfonamide	84%
Inert Ingredients	16%
Total	100%

Contains 0.84 pounds of active ingredient per pound of product.

U.S. Patent No. 5,163,995

Keep Out of Reach of Children

CAUTION PRECAUCION

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

Precautionary Statements

Hazards to Humans and Domestic Animals

Causes Moderate Eye Irritation • Harmful If Absorbed Through Skin

Avoid contact with eyes, skin, or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

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

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.

First Aid

If in eyes: Flush with plenty of water. Get medical attention if irritation persists.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

ACCEPTED
with COMMENTS
In EPA Letter Dated

MAR 8 2000

Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 62719-288

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Environmental Hazards

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or when disposing of equipment washwaters.

This chemical and its transformation products demonstrate the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

This chemical can contaminate surface water through spray drift.

Under some conditions, this chemical, and/or its transformation products, may have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several weeks post-application. Vulnerable conditions include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, 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 over-laying tile drainage systems that drain to surface water.

Agricultural Use Requirements
Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for additional Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. **Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" inside label booklet.**

In case of emergency endangering health or the environment involving this product, call 1-800-992-5994. If you wish to obtain additional product information, visit our web site at www.dowagro.com.

Agricultural Chemical: Do not ship or store with food, feeds, drugs or clothing.

EPA Reg. No. 62719-288

EPA Est. 00000-XX-00

*Trademark of Dow AgroSciences LLC
Dow AgroSciences LLC • Indianapolis, IN 46268 U.S.A.

Herbicide

Net Wt __ lb

(Label Booklet cover):

(logo) Dow AgroSciences LLC

Strongarm*

For Broadleaf Weed Control in Peanuts

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Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to label booklet under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

Refer to label booklet for additional precautionary information including Personal Protective Equipment (PPE), User Safety Recommendations and Directions for Use including Storage and Disposal.

Notice: Read the entire label. Use only according to label directions. Before buying or using this product, read "Warranty Disclaimer" and "Limitation of Remedies" inside label booklet.

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Herbicide

Net Wt __ lb

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(Page 1 through end):

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Avoid contact with eyes, skin, or clothing.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

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

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.

First Aid

If in eyes: Flush with plenty of water. Get medical attention if irritation persists.

If on skin: Wash with plenty of soap and water. Get medical attention if irritation persists.

Environmental Hazards

Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water by cleaning of equipment or when disposing of equipment washwaters.

This chemical and its transformation products demonstrate the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground-water contamination.

This chemical can contaminate surface water through spray drift.

Under some conditions, this chemical, and/or its transformation products, may have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several weeks post-application. Vulnerable conditions include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, 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 over-laying tile drainage systems that drain to surface water.

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.

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.

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

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

- Coveralls
- Waterproof gloves
- Shoes plus socks

Storage and Disposal

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

Storage: Store in original container only. In case of leak or spill, contain material with absorbent materials and dispose as waste.

Disposal: Wastes resulting from the use of this product may be disposed of on site according to label use directions or at an approved waste disposal facility.

Container Disposal: When all packets are used, dispose of empty package in a sanitary landfill or by incineration or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

General Information

Strongarm* herbicide is a soil-applied product for control of broadleaf weeds in peanuts. Strongarm may also be used postemergence in peanuts.

Soil application: A single preplant incorporated, preplant surface, or preemergence application may be made in peanuts.

Postemergence application: A single postemergence application may be made in peanuts.

General Use Precautions and Restrictions

Maximum Application Rates

- In peanuts, do not apply more than 0.45 oz of Strongarm per acre per year in any combination of preplant incorporated, preplant surface, preemergence or postemergence applications.
- **Note:** Only a single soil application per growing season may be made in peanuts.

Preharvest Interval

Do not harvest peanuts for 30 days following application.

Read and carefully follow all applicable directions, precautions and restrictions on labeling for other products used in combination with Strongarm.

Aerial application of this product is prohibited.

Do not allow livestock to graze treated areas or harvest forage or hay from treated areas.

Iron Chlorosis: There are isolated areas of the country where soil-induced iron chlorosis routinely occurs. Severity of iron chlorosis symptoms may increase when Strongarm is soil-applied in areas with a history of soil-induced iron chlorosis or other nutrient induced crop injury.

Proper Handling Instructions

This product may 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 washwater, 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.

Chemigation: 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 that will prevent back siphoning in wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

Crop Rotation Interval for Common Crops

Crop	Rotation Interval (1) (Months)
soybeans, peanuts	no restriction
wheat, barley	4
oats, rye	6
cotton	10
corn (2), rice, tobacco, sorghum	18
sugar beets, sunflowers and other crop not listed	30 (3)

1. Minimum number of months that must pass before planting other crops after application of Strongarm at up to 0.45 oz/acre in peanuts.
2. The crop rotation interval for corn hybrids identified as "IR" is 10 months.
3. Rotation to sugar beets, sunflowers, and all other crops not listed requires a 30-month rotation interval and a successful field bioassay.

Field Bioassay Instructions

Using typical tillage, seeding practices, and timings for the particular crop, plant several strips of the desired crop variety across the field previously treated with Strongarm. Plant the strips perpendicular to the direction Strongarm was applied. The strips should also be located so that different field conditions are encountered, including differences in soil texture, pH, and drainage. If the crop does not show visible symptoms of injury, stand reduction, or yield reduction, the field can be seeded with the test crop in the growing season following the bioassay. If visible injury, stand reduction, or yield reduction occurs, the test crop should not be seeded, and the bioassay must be repeated the next growing season.

Mixing and Application**Spray Volume and Application**

Apply Strongarm in sufficient spray volume to provide uniform coverage. A spray volume of 10 or more gallons per acre is recommended for soil applications. Sufficient agitation should be maintained during mixing and spraying to ensure a uniform spray mixture. Apply with ground equipment using standard low pressure (20 to 40 psi) herbicide sprayers equipped with nozzles that provide uniform spray coverage. Screens in spray lines should be no finer than 50 mesh (100 mesh is finer than 50 mesh)..

Strongarm Applied Alone

Strongarm water dispersible granules are provided in water soluble packets that require thorough mixing. **Note:** The water soluble packets are not soluble in liquid fertilizer. If applied in liquid fertilizer, Strongarm **must be** pre-mixed (slurried) with water and then added to the liquid fertilizer solution. Premixing may also be used to aid in mixing with water. See pre-mixing instructions below.

Handling Precautions for Water Soluble Packets: Do not remove water soluble packet from overpack except for immediate use. Do not open water soluble packets (product in transparent film). Do not allow water soluble packet to come into contact with water prior to use. Do not handle water soluble packet with wet hands or wet gloves. Carefully reseal overpack containing unused water soluble packets and protect package from moisture.

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Determining the Number of Water Soluble Packets Required:

Application Rate (oz/acre)	Acres per Individual Bubble Packet
0.45 †	1.0

Formula: Acres to be treated ÷ Acres/Package = Number of Packages

Mixing Order:

1. Fill the tank with ½ of the total amount of water or liquid fertilizer for the load. **Note:** If liquid fertilizer is being used as the spray carrier, water-soluble packets must be pre-mixed as described below before adding to the spray tank. Start the agitation system.
2. Add water soluble packets by opening the overpack and adding the packet (product in transparent film) directly into the spray tank while agitating. Before spraying, make sure packets have completely disintegrated and product is thoroughly mixed with water. Depending on the water temperature and the degree of agitation, the packet and its contents should be completely dispersed within 5 minutes from the time they were added to the water.
3. Postemergence or burndown application: Add any surfactant or other adjuvant material last
4. Continue agitation and finish filling tank.

Note: To ensure a uniform spray mixture continuous agitation is required during application. If product is allowed to settle, thoroughly agitate to resuspend the mixture before spraying. To ensure product effectiveness, apply within 24 hours of mixing. Weed control with Strongarm that has been mixed and allowed to stand for more than 48 hours may be reduced.

Strongarm Applied in Tank-mix Combination

If a broader spectrum of weed control is required, Strongarm may be tank-mixed with labeled rates of other herbicides provided: (1) the tank mix product is labeled for the timing and method of application for the use site to be treated; and (2) tank mixing is not prohibited by the label of the tank mix product.

Tank Mixing Precautions:

- Read carefully and follow all applicable use directions, precautions, and limitations on the respective product labels.
- Do not exceed recommended application rates for respective products or maximum allowable application rates for any active ingredient in the tank mix.
- For products packaged in water soluble packaging, do not tank mix with products containing boron or mix in equipment previously used to apply a product mixture containing boron unless the tank and spray equipment has been adequately cleaned. (See Equipment Clean-Out Procedures.)
- Always perform a (jar) test to ensure the compatibility of products to be used in tank mixture.

Tank Mix Compatibility Testing: A jar test is recommended prior to tank mixing to ensure compatibility of Strongarm and other pesticides. Use a clear glass quart jar with lid and mix the tank mix ingredients in their relative proportions. Invert the jar containing the mixture several times and observe the mixture for approximately 1/2 hour. If the mixture balls-up, forms flakes, sludges, jels, oily films or layers, or other precipitates, it is not compatible and the tank mix combination should not be used.

Vigorous, continuous agitation during mixing, filling and throughout application is required for all tank-mixes. Sparger type agitators generally provide the most effective agitation in spray tanks. To prevent foaming in the spray tank, avoid stirring or splashing into the spray mixture.

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Mixing Order for Tank-mixes:

1. Fill the spray tank to 1/2 of the total spray volume required with water or liquid fertilizer. **Note:** If liquid fertilizer is being used as the spray carrier, water-soluble packets must be pre-mixed as described below before adding to the spray tank. Start the agitation system.
2. Add water soluble packets by opening the overpack and adding water soluble packet (product in transparent film) directly into the spray tank while agitating and allow time to disperse. Allow time for complete mixing (approximately 5 minutes). Before adding other products, make sure packets have completely disintegrated and product is thoroughly mixed.
3. Add different formulation types in the following order: (1) Other formulation packaged in water soluble film; (2) Any compatibility agent, if required; (3) other dry flowables; (4) wettable powders; (5) aqueous suspensions, flowables and liquids. Maintain agitation and fill spray tank to 3/4 of total spray volume and add: (5) emulsifiable concentrates and (6) solutions (i.e., fertilizers). Allow time for complete mixing after each addition.
4. Postemergence or burndown application: Add any surfactant or other adjuvant material last.
5. Finish filling the spray tank. Maintain continuous agitation during mixing and throughout application.

If application or agitation must be stopped before the spray tank is empty, the materials may settle to the bottom. Settled materials must be re-suspended before spraying is resumed. A sparger agitator is particularly useful for this purpose. Settled material may be more difficult to re-suspend than when originally mixed.

Pre-mixing (Slurry) of Water Soluble Packets

The film used in water soluble packaging for Strongarm is not soluble in liquid fertilizer solutions. In order to add Strongarm to liquid fertilizer carrier, the product **must be** premixed with water. Pre-mixing is also an alternative mixing method for application in water. Use a minimum 2 fl oz of water for each individual 0.45 oz water soluble packet of Strongarm. The packets can be stirred immediately on addition to water or allowed to dissolve. Stir (or shake if pre-mixed in a closed container) until the packets are completely dissolved and granules are dispersed and then add to the spray tank or inductor (recommended through a 20-35 mesh screen). Rinse container used for pre-mixing and add rinsate to spray tank.

Pre-mixing (other products): If pre-mixing is required for other dry or flowable products applied in tank-mix combination with Strongarm, follow recommendations for pre-mixing of such products provided in their respective product labels.

Equipment Clean-out Procedures:

1. Drain any remaining spray mixture from the application system.
2. Hose down the interior surfaces of the tank while filling the tank 1/2 full with water.
3. Add household ammonia, at a rate of 1 gallon per 100 gallons of water. Recirculate for 5 minutes and spray out part of this mixture for 5 minutes through the boom. Drain tank.
4. Remove all spray nozzles and screens and clean separately.

Note: If this spray equipment will be used on a crop that is sensitive to Strongarm, steps 1-3 should be repeated. Exterior surfaces of spray equipment should also be washed thoroughly.

All rinsate should be disposed of on site or at an approved waste disposal facility.

Application with Dry Bulk Fertilizer (Soil Application Only)

Dry bulk fertilizer may be impregnated or coated with Strongarm. Soil applications of Strongarm with dry bulk fertilizer can provide weed control equal to the same rates of Strongarm applied in liquid carriers. Follow label recommendations, including application rates, precautions and limitations for soil application.

Apply the recommended rate of Strongarm in 200 to 700 lb/acre of dry bulk fertilizer using calibrated equipment. To avoid caking, apply the mixture as soon as possible after blending. Uniform application of

the herbicide/fertilizer mixture is essential for satisfactory weed control and to prevent possible crop injury. In areas where conventional tillage is practiced, shallow soil incorporation of the mixture may improve weed control.

Some fertilizer blends tend to absorb moisture, especially under high humidity conditions. Under humid conditions, the addition of a drying agent such as Celatom™ or Microcel™ (diatomaceous earth) may be necessary to prevent caking. Use of a drying agent is recommended if the fertilizer mixture will not be applied immediately.

Most absorbent dry fertilizers can be used for impregnation with Strongarm. Pure ammonium nitrate and/or limestone will not absorb the herbicide and are not suitable for impregnation with Strongarm. Absorbent fertilizer blends containing ammonium nitrate and/or limestone as part of a mixture may be suitable for impregnation.

Compliance with all Federal and State regulations relating to blending pesticide mixtures with dry bulk fertilizer, registration, labeling and application are the responsibility of the individual and/or company offering the fertilizer and chemical mixture for sale.

Impregnation: Strongarm must be premixed with water to form a slurry prior to impregnation of dry bulk fertilizer. For best results, use a minimum of 6 fl oz of water for each individual 0.45 oz water soluble packet of product.

Pre-mixing can be accomplished by shaking the water soluble packets and water together in a closed container with a small amount of a silicon-based defoaming agent. Inspect the mixture to assure the Strongarm is completely dispersed in water and the water soluble packaging has completely dissolved. Add sufficient water to adjust the total volume of the mixture to deliver a spray volume of 0.5 to 1.0 gallons per ton of fertilizer. Use constant agitation to keep the spray mixture suspended.

Spray nozzle selection and placement are critical for uniform spray coverage. The recommended spray time is no less than 3-5 minutes per batch. Nozzle placement should minimize spray overlap in the blender and also avoid spraying the mixer walls. The use of a suitable in-line (no finer than 100-mesh) screen is also recommended to avoid spray blockages. Any closed drum, belt, ribbon or other commonly used dry bulk fertilizer blender may be used.

Calculate amounts of Strongarm by the following formula:

$$\frac{2,000}{\text{Pounds of fertilizer per acre}} \times \text{ounces/acre of Strongarm} = \text{ounces of product per ton of fertilizer}$$

Example:

$$\frac{2,000}{250 \text{ Lbs of fertilizer per acre}} \times 0.45 \text{ ounces/acre of Strongarm} = 3.6 \text{ ounces of product (Strongarm) per ton of fertilizer}$$

Note: It is imperative to thoroughly flush the fertilizer dry blending equipment prior to preparing blends with other herbicides. Flushing may be accomplished by running 1-2 loads of dry fertilizer, which must be used only in peanuts or soybeans. Inspect the equipment carefully for any spray buildup or deposits from earlier batches and wash or remove as appropriate. Where possible, rinse the blenders with water, followed by bleach or ammonia solution. The rinsate can be mixed with the fertilizer used for flushing, but at no more than 1 gallon of rinsate per ton of fertilizer.

Approved Uses

PEANUTS (Soil Application)

Strongarm may be used in various tillage programs including, but not limited to, strip till, no till and conventional tillage operations. Application of Strongarm on soils with greater than 5% organic matter may result in reduced weed control and require subsequent postemergence applications of other herbicides appropriate for specific weeds. Do not use on peat or muck soils. Season-long control of severe weed infestations may require a postemergence application of complimentary herbicides following application of Strongarm.

Note: Environmental and soil factors can influence the performance and selectivity of any herbicide treatment. Rainfall of 0.5 inches or greater is required for optimum weed control by most soil herbicides, including Strongarm. Strongarm and other herbicides when incorporated will perform most optimally when evenly distributed in the surface soil. When emergence of the planted crop is delayed due to unusually cool and/or wet conditions, factors such as pH, disease, and nutrient deficiencies can contribute to reduced crop tolerance to a soil-applied herbicide.

Cultivation: If required, cultivation should be shallow to avoid excessive movement of treated soil and to avoid exposing weed seed buried deep within the soil.

Area of Use (Peanuts): Use of Strongarm is recommended in all areas where peanuts are grown.

Application Rates	
Crop	Strongarm (oz/acre)
Peanuts	0.45
Weeds Controlled	
bristly starbur	Pennsylvania smartweed
common cocklebur	prickly sida
common lambsquarters	redroot pigweed
common ragweed	smooth pigweed
common sunflower	spurred anoda
eclipta	spurge species
devil's-claw	shining tickweed
Florida beggarweed	tropic croton
giant ragweed	Virginia Copper Leaf
morningglory species	velvetleaf
nutsedge species (1, 2)	wild poinsetta
Palmer amaranth	

Note: Numbers in parentheses "(-)" refer to footnotes below.

1. Heavy infestations may require postemergence application of complimentary herbicides following a soil application of Strongarm for season-long control.
2. The level of nutsedge control provided by Strongarm on nutsedge can vary depending on weed density and soil or environmental conditions.

For best results:

- Fields should be clean-tilled and weed-free.
- Apply **Strongarm** as close as possible to planting.
- If irrigation is available, immediately apply 0.25 to 0.5 inch of water.

- Cultivation, a tank mixture, or applications of postemergence herbicides may also be needed to achieve desired level of control.

Application Directions

Preplant Incorporated Application

Apply Strongarm alone or in tank-mix combination with other herbicides registered for preplant incorporated application. Apply to a seedbed that is relatively free of clods. Incorporate the herbicide(s) into the top 1 to 3 inches of the final seedbed using equipment that provides thorough soil mixing. Do not apply Strongarm more than 4 weeks before planting. For optimum results, apply Strongarm at or just prior to planting. When Strongarm is applied in tank-mix combination with other herbicide(s), follow the incorporation directions for the tank-mix partner(s). Follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank-mixture.

Preplant Surface Application

Apply Strongarm alone or in tank-mix combination with other herbicides registered for preplant soil surface applications. Apply to a seedbed that is relatively free of clods. Do not apply Strongarm more than 4 weeks before planting. For optimum results, apply Strongarm at or just prior to planting. Soil surface applications are not effective until rainfall or irrigation of at least 0.25 - 0.5 inches has moved Strongarm into soil where weed germination occurs. If rainfall is not anticipated, shallow (i.e., 2 inches) incorporation prior to planting is recommended to place Strongarm in contact with germinating weeds. If applied in tank-mix combination, follow use instructions, including application rates, precautions and restrictions of each product used in the tank-mixture. For minimum-tillage or no tillage or reduced tillage systems, when weeds are present at the time of application, apply in a tank mix combination a contact herbicide such as Starfire or Roundup herbicide.

Note: Reduced weed control in the planted row may occur from exposure of untreated soil during the planting operation if surface applications are not incorporated prior to planting.

Burndown Application

When used as a no-till burndown application, Strongarm provides foliar control of specific broadleaf weeds (bristly starbur, common cocklebur, common and giant ragweed, common sunflower, Florida beggarweed, morningglory species, tropic croton, and velvetleaf) and residual control of broadleaf weeds listed above for soil applied applications. For optimum results, apply Strongarm within 2 weeks of planting. If applied as a burndown application in tank-mix combination with another herbicide(s), use only adjuvants that are recommended for the tank-mix partner(s). When tank-mixing with other herbicides, a jar test for compatibility is always recommended (see "Compatibility Testing" in the "Mixing and Application" section).

Mixing Order: When tank mixing with glyphosate and ammonium sulfate, add ammonium sulfate to the tank mixture before adding glyphosate.

Preemergence Application

Apply after planting but prior to crop or weed emergence. Preemergence applications are not effective until rainfall or irrigation of at least 0.25 - 0.5 inches has moved Strongarm into the soil where weed germination occurs. Strongarm may be applied alone or in tank-mix combination with herbicides registered for preemergence application. When applied in tank-mix combination, follow applicable use instructions, including application rates, precautions and restrictions of each product used in the tank-mixture. For optimum results, Strongarm should be applied at or near planting, prior to germination of weeds and emergence of the crop.

Postemergence Application (Peanuts Only)

Apply Strongarm as a broadcast spray when weeds are in the 1 to 4 leaf stage and actively growing. Applications made to larger weeds or to weeds under stress may result in unsatisfactory control. Optimum weed control will be obtained by applying Strongarm under favorable growing conditions (i.e., adequate soil moisture and temperature). Applications may occur from peanut cracking through pegging.

Strongarm may be applied alone or in tank mix combination with other postemergence herbicides registered for use in peanuts. Applications of Strongarm must include either a crop oil concentrate, or a nonionic surfactant.

Weeds Controlled	Strongarm (oz/acre)
common cocklebur	0.15 - 0.45
common ragweed	
Florida beggarweed	
nemp sesbania	
morningglory species	
nutsedge species	
prickly sida	
smartweed	
spurge species	
spurred anoda	
velvetleaf	

Adjuvant Systems for Postemergence Application

Use in combination with one of the following adjuvant systems approved for application to growing crops:

- Nonionic surfactant (0.125 - 0.25% v/v)
- Nonionic surfactant (0.125 - 0.25% v/v) plus urea ammonium nitrate solution (2.5% v/v); dry ammonium sulfate may be used at a rate of 2 lbs per acre as a substitute for urea ammonium nitrate.
- Crop oil concentrate or methylated seed oil (1.2% v/v)
- Crop oil concentrate or methylated seed oil (1.2% v/v) plus urea ammonium nitrate solution (2.5% v/v)

Note: Use of crop oil concentrate or methylated seed oil plus urea ammonium nitrate is preferred when weeds are under drought stress, but may increase crop injury.

Tank Mix Applications

When applied in tank mix combination with other herbicides, follow applicable use instructions, including application rates, precautions and restrictions for each product used in the tank mixture, including use of adjuvants.

Minimum Tillage, No Tillage, Strip Tillage, or other reduced tillage systems

In these tillage systems, where peanuts are planted directly into a cover crop, stale seedbed, or previous crop residues, a contact herbicide such as Starfire or Roundup may be tank mixed with Strongarm to control existing weeds. Apply before, during (behind the planter), or after planting, but before the crop emerges.

Strongarm Followed by Postemergence Treatments

Weeds and grasses not controlled by Strongarm may be controlled with postemergence herbicide products. Follow the postemergence manufacturer's labels for application rates, weeds controlled, applicable use directions, precautions and limitations before use.

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