

JAN 30 2001

Mr. Rafael Herrera  
 Dow AgroSciences LLC  
 9330 Zionsville Road  
 Indianapolis, IN 46268

Dear Mr. Herrera:

SUBJECT: Label Amendment Revising First Aid, Shortening Rotational Crop Interval for Snap Beans, Clarifying Preemergence Application Timing to Include "through cracking", etc. *plus* Supplemental Labeling for Use on Peanuts in New Mexico, Oklahoma and Texas.

Strongarm\*  
 EPA Registration Number: 62719-288  
 Your Application Dated January 4, 2001

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable, provided you make the following changes:

- Delete the statement on page 6 of the main label and page 3 of the submitted supplemental label for New Mexico, Oklahoma and Texas allowing aerial applications of this product if permitted by EPA approved supplemental labeling. Instead, reinstate the prohibition against aerial application as on the previously approved label: "Aerial application of this product is prohibited." The Agency is not approving aerial application of this product at this time. Please refer to my letter to you, dated January 29, 2001, for a more detailed explanation of this decision.
- On page 9, in step 3 under "Mixing Order for Tank Mixes", correct the numbering of formulation types, so that the last three types read: "(6) emulsifiable concentrates (7) solutions (i.e., fertilizers), and (8) surfactants."

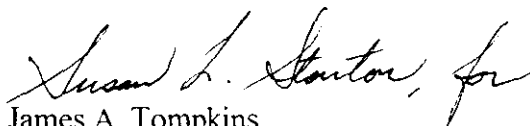
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CONCURRENCES

SYMBOL ▶	7505C							
SURNAME ▶	S. Stanton							
DATE ▶	Jan 30, 2001							

This labeling supersedes the previously accepted labeling for the subject product. Stamped copies of the main label and supplemental label for use in New Mexico, Oklahoma and Texas are enclosed for your records. Please submit one copy of your final printed labels before you release the product for shipment. Please note that you must incorporate the supplement label for this product into the master label within a year of this label acceptance.

Sincerely yours,



James A. Tompkins  
Product Manager (25)  
Herbicide Branch  
Registration Division (7505C)

Enclosures

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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:** 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 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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

ACCEPTED  
with COMMENTS  
in EPA Letter Dated

JAN 30 2001

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 using this product, read "Warranty Disclaimer," "Inherent Risks of Use," and "Limitation of Remedies" at end of label booklet. If terms are unacceptable, return at once unopened.

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](http://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

Active Ingredients:

diclosulam: N-(2,6-dichlorophenyl)-5-ethoxy-7-fluoro[1,2,4]triazolo-[1,5-c]pyrimidine-2-sulfonamide .....	84%
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Inert Ingredients .....	16%
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Total .....	100%
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U.S. Patent No. 5,163,995

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#### 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 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 using this product, read "Warranty Disclaimer," "Inherent Risks of Use," and "Limitation of Remedies" at end of label booklet. If terms are unacceptable, return at once unopened.

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## Herbicide

Net Wt \_\_ lb

(Page 1 through end):

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## Precautionary Statements

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### Hazards to Humans and Domestic Animals

## CAUTION

**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:** 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 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.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

### 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.

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## 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:** Strongarm may be applied preplant incorporated, preplant surface, or preemergence through cracking in peanuts. "Cracking" of soil occurs when soil is displaced by germinating seedlings just prior to emergence.

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

**For Use in Texas, New Mexico and Oklahoma:** Refer to Dow AgroSciences supplemental labeling for instructions for use in these states. Supplemental labeling may be obtained at the Dow AgroSciences web site at [www.dowagro.com](http://www.dowagro.com).

## 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 through cracking, or postemergence applications.

### 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.

**Do not aerially apply Strongarm unless permitted by EPA approved supplemental labeling.**

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.

### Precautions for Avoiding Injury to Nontarget Plants

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 that 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 1/2 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.

**Crop Rotation Interval for Common Crops**

Crop	Rotation Interval (1) (Months)
soybeans, peanuts	no restriction
wheat, barley	4
oats, rye	6
snapbeans	9
cotton	10
corn (2), rice, tobacco, sorghum	18
sugar beets, sunflowers and other crops 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.

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## 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.

### 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/Packet = Number of Packets

### 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.

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**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.

**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, (6) solutions (i.e., fertilizers), and (7) surfactants. 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 of 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:**

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1. Drain any remaining spray mixture from the application system.
2. Hose down the interior surfaces of the tank while filling the tank ½ 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 300 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.

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 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 or product.

Pre-mixing can be accomplished by shaking the water soluble packets and water together in a closed container. A small amount of a silicon-based defoaming agent may also be needed. 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.

**Herbicide Combinations with Strongarm on Dry Bulk Fertilizer:** To prepare concentrated tank mixtures of Strongarm with emulsifiable concentrate (EC) formulations, the Strongarm/water premix should be added to the liquid mixing tank first. If additional water is required, this should be added next, followed by the EC. Care should be taken to avoid oversaturating the dry fertilizer with liquid. For this reason the volume of water in the mixing tank should be roughly equivalent to the volume of EC added to the mixing tank. Depending on the specific dry fertilizer blend and the EC application rates, it may be necessary to increase the fertilizer application rates to avoid oversaturating the dry fertilizer. Oversaturation can result in a mixture with poor flow properties and increase Strongarm residues left in the blending equipment.

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:

$$\frac{2,000}{300 \text{ lbs of fertilizer per acre}} \times 0.45 \text{ ounces/acre of Strongarm} = 3.0 \text{ ounces of product (Strongarm) per ton of fertilizer}$$

**Note:** It is imperative to thoroughly flush the fertilizer dry blending equipment prior to preparing blends with other herbicides. If the following crop is peanuts or soybeans: 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.

If the following crop is not peanuts or soybeans: at a minimum, two dry flush batches are required. Both flushes should fill at least 50% of the blender's capacity. A third flush is recommended if the Strongarm blender batch was "wet" due to oversaturating the fertilizer, or if the subsequent application is for a crop known to be highly sensitive to Strongarm.

Alternately, an effective cleaning procedure would be rinsing the blenders with a bleach or ammonia solution. The resulting rinsate can be mixed with the fertilizer used for flushing, but at no more than 1 gallon of rinsate per ton of fertilizer.

**Labeled Uses**

(All Areas, Except New Mexico, Oklahoma and Texas)

For use in New Mexico, Oklahoma, and Texas see Dow AgroSciences supplemental labeling.

**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)

14/20

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	velvetleaf
morningglory species	Virginia copperleaf
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 can vary depending on weed density and soil or environmental conditions (especially soil moisture).

**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 (apply a minimum of 0.5 inch of water if soil conditions are dry).
- 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. The use of a stalk chopper as an incorporation implement is not recommended and can result in poor weed control and/or crop injury. Do not apply Strongarm more than 4 weeks before planting. For optimum results, apply Strongarm at or just prior to planting. Proper moisture is needed to activate Strongarm and maintain weed control. 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. Under dry soil conditions a minimum of 0.5 inches of water is necessary for initial activation of Strongarm. If rainfall is not anticipated, shallow (i.e., 2 inches) incorporation prior to planting is recommended to place Strongarm in contact with germinating weeds. Even with incorporation, water is still needed for activation of Strongarm. 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, no tillage, or reduced tillage systems, when weeds are present at the time of application, apply in a tank mix combination with a contact herbicide such as Gramoxone Max, Roundup UltraMAX, Glyphomax, or Glyphomax Plus 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 through cracking. 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. Under dry soil conditions a minimum of 0.5 inches of rain/irrigation water is necessary for initial activation. 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. Do not rely on Strongarm for post emergence control of emerged weeds.

### 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	
hemp sesbania	
morningglory species	
nutsedge species	
prickly sida	
smartweed	
spurge species	
spurred anoda	
velvetleaf	

#### Adjuvant Systems for Postemergence Application <sup>††</sup>

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)

<sup>††</sup> **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 seeded, or previous crop residues, a burndown herbicide such as Gramoxone Max, Roundup UltraMAX, Glyphomax, or Glyphomax Plus may be tank mixed with Strongarm to control existing weeds. Do not rely on Strongarm for post emergence control of emerged weeds. Apply before, during (behind the planter), or after planting through cracking. If applying at cracking, insure that any tank mix partner being used is labeled for this application.

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

#### 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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#### Terms and Conditions of Use

If terms of the following Warranty Disclaimer, Inherent Risks of Use, and Limitation of Remedies are not acceptable, return unopened package at once to the seller for a full refund of purchase price paid. Otherwise, use by the buyer or any other user constitutes acceptance of the terms under Warranty Disclaimer, Inherent Risks of Use and Limitations of Remedies.



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**Warranty Disclaimer**

Dow AgroSciences warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. Dow AgroSciences MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.

**Inherent Risks of Use**

It is impossible to eliminate all risks associated with use of this product. Crop injury, lack of performance, or other unintended consequences may result because of such factors as use of the product contrary to the label instructions (including adverse conditions noted on the label, such as unfavorable temperatures, soil conditions, etc.), abnormal conditions (such as excessive rainfall, drought, tornadoes, hurricanes), presence of other materials, the manner of application, or other factors, all of which are beyond the control of Dow AgroSciences or the seller. All such risks shall be assumed by the buyer.

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- 1. Refund of purchase price paid by buyer or user for product bought, or
- 2. Replacement of amount of product used.

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# Supplemental Labeling



Dow AgroSciences LLC 9330 Zionsville Road Indianapolis, IN 46268-1054 USA

## Strongarm\*

EPA Reg. No. 62719-288

### Preemergence Broadleaf Weed Control in Peanuts (For Distribution and Use Only in the states of New Mexico, Oklahoma and Texas)

- ATTENTION**
- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
  - This labeling must be in the possession of the user at the time of application.
  - Read the label affixed to the container for Strongarm before applying. Carefully follow all precautionary statements and applicable use directions.
  - Except as described in this supplemental labeling, use of Strongarm is subject to all precautions and limitations imposed by the labels affixed to the containers for Strongarm.

### Directions for Use

Strongarm\* herbicide may be soil-applied as a broadcast or band application for preemergence control of broadleaf weeds in peanuts. Strongarm may be applied alone or in tank mix combination with other herbicides registered for preemergence use in peanuts.

**Mixing and Application:** Follow mixing directions in the label booklet attached to the product container. 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.

**For band applications,** use nozzles designed for even application within the band (usually with an "E" designation). If you are unsure about the suitability of a particular nozzle for band application, consult the manufacturer's specifications. The following formula may be used to determine the amount of herbicide needed.

$$\begin{array}{l} \text{Band width in inches} \\ \text{-----} \end{array} \times \begin{array}{l} \text{Broadcast rate} \\ \text{per acre} \end{array} = \begin{array}{l} \text{Amount needed} \\ \text{per acre of field} \end{array}$$

### Determining the Number of Water Soluble Packets Required:

Application Rate (oz/acre)	Acres per Individual Bubble Packet
0.3 - 0.45	1.5 to 1.0

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

Sample Calculation: Acres to be treated = 31  
 Rate Needed = 0.3 oz/A  
 Acres/Package = 1.5 acres/package  
 31 acres ÷ 1.5 acres per package = 20.66 packages  
 (20.66 packages rounded up to nearest whole number of packages = 21 packages)

ACCEPTED  
with COMMENTS  
In EPA Letter Dated

JAN 30 2001

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

## Preemergence Application

**Texas and New Mexico:** Apply Strongarm at the rate of 0.45 oz as a preemergence application from no less than 5 days after planting through "at-cracking".

**Oklahoma:** Strongarm, preemergence at the rate of 0.3 oz per acre may be applied from immediately after planting through "at-cracking". Strongarm at the 0.45 oz per acre rate may be applied from no less than 5 days after planting through "at-cracking".

† "Cracking" of soil occurs when soil is displaced by germinating seedlings just prior to emergence.

Peanuts should be planted at least 1 1/2 inches deep. For best results, soil moisture should be sufficient for immediate germination. When Strongarm is soil applied, rainfall or irrigation equal to 0.25 to 0.5 inches is required for herbicidal activation and to move the active ingredient into the zone of weed germination. Under dry soil conditions, a minimum of 0.5 inches of rain/irrigation water is necessary for herbicidal activation. If weeds have emerged prior to application, use an appropriate contact herbicide to control the weeds that are present.

Application Rates	
Crop	Strongarm (oz/acre)
Peanuts	0.3 - 0.45
Weeds Controlled	
bristly starbur	Pennsylvania smartweed
common cocklebur	prickly sida
common lambsquarters	redroot pigweed
common ragweed	smooth pigweed
common sunflower	spurge species
eclipta (1)	spurred anoda
devil's-claw	shining tickweed
Florida beggarweed	tropic croton
giant ragweed	velvetleaf
morningglory species (1)	Virginia copperleaf (1)
nutsedge species (1, 2, 3)	wild poinsetta
Palmer amaranth	

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

1. When using the 0.3-oz rate, weed control results on eclipta, morningglory, nutsedge, and Virginia copperleaf may be variable. A follow up treatment with another herbicide may be necessary for full season control.
2. Heavy infestations may require postemergence application of complimentary herbicides following a soil application of Strongarm for season-long control.
3. The level of nutsedge control provided by Strongarm can vary depending on weed density and soil or environmental conditions (especially moisture).

### For best weed control results:

- Fields should be clean-tilled and weed-free.
- Cultivation, a tank mixture, or applications of postemergence herbicides may also be needed to achieve desired level of weed control.

**Tank Mixing:** Strongarm may be applied in tank mix combination with labeled rates of other herbicides labeled for preemergence application to peanuts 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. 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. Refer to the product label booklet for Strongarm for detailed information on tank mixing.

**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 burndown application of a herbicide such as Gramoxone Max, or glyphosate-containing product † such as Roundup UltraMAX, Glyphomax, or Glyphomax Plus should be used to control existing weeds. Do not rely on Strongarm for post emergence control of emerged weeds.

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

**Strongarm Followed by Postemergence Treatments:** Weeds and grasses not controlled by Strongarm may be controlled with postemergence herbicide products. Follow the manufacturer's label for the postemergence product for application rates, weeds controlled, applicable use directions, precautions and limitations before use.

**Use Precautions and Restrictions:**

- **Preharvest Interval:** Do not harvest peanuts for 30 days following application.
- **Maximum Use Rate for Peanuts:** Do not apply more than 0.45 oz of Strongarm per acre per year.
- Do not apply Strongarm to soils with a pH of 7.2 or greater.
- Seeds that have low germination or low early season vigor have shown more susceptibility to environmental stress and herbicide injury. Do not apply Strongarm to peanut varieties with a warm germination test of less than 80% germinable seed.
- Seeds must be planted at least 1 1/2 inches deep.
- Extended cold wet conditions, following applications of Strongarm, which persist during germination and early crop development will result in crop injury. Do not apply Strongarm when below normal soil and/or air temperatures are expected within 5 days of application.
- **Do not aerially apply Strongarm unless permitted by EPA approved supplemental labeling.**
- **Chemigation:** Do not apply this product through any type of irrigation system.
- Rainfall or irrigation immediately following application may increase potential for crop injury especially under persistent cool conditions.
- 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. Under dry soil conditions, a minimum of 0.5 inches of rain/irrigation water is necessary for herbicidal activation.
- Do not use Strongarm in peanuts grown under drip irrigation. Peanuts grown under drip irrigation must rely on timely rainfall to uniformly moisten the soil since pegging will not occur where surface soil is dry.
- Do not use flood irrigation to apply or incorporate Strongarm.
- When using furrow irrigation, weed control results will be variable if no rainfall is received within 2 weeks of application of Strongarm.
- Avoid use of irrigation water that does not meet irrigation water quality standards published by state or land grant universities. If no standards have been published, use guidelines in the Western Fertilizer Handbook. Poor water quality can injure or kill peanuts.
- Do not allow livestock to graze treated areas or harvest forage or hay from treated areas.

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D06-044-XXX

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Initial Printing.

