

PEANUTS - PREPLANT SURFACE

General Information

Product Information

Strongarm herbicide is a soil-applied product for control of broadleaf weeds in peanuts. 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.

Use Precautions

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

Use Restrictions

- Aerial application of this product is prohibited.
- Do not allow livestock to graze treated areas or harvest forage or hay from treated areas.
- Chemigation: Do not apply this product through any type of irrigation system.
- Do not use flood irrigation to apply or incorporate this product.
- 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 applications.
- Preharvest Interval: Do not harvest peanuts for 30 days following application.
- Do not apply Strongarm to peanuts in the states of New Mexico, Oklahoma and Texas.

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.

Avoid all direct or indirect contact with non-target 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 erosion of soil containing Strongarm to non-target areas. To prevent off-site movement due to runoff or wind erosion:

- Avoid treating powdery dry or light sandy soils when conditions are favorable for wind erosion. Under these conditions, allow the soil surface to 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 of treated fields to treat non-target crops unless at least 1/2 inch of rainfall has occurred between application and the first irrigation.

Do not apply when weather conditions favor drift to non-target sites. To minimize spray drift to non-target 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 when conditions are calm or wind speed is low. Do not spray when wind is gusting or steady wind speed is greater than 10 mph.

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 in which Strongarm was applied. Locate the strips 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.

Application with Dry Bulk Fertilizer (Soil Application Only)

Dry bulk fertilizer may be impregnated or coated with Strongarm. Soil applications of dry bulk fertilizer impregnated with Strongarm provides weed control equal to the same rates of Strongarm applied in liquid carriers. Follow label directions for Strongarm regarding rates per acre, special instructions, precautions and limitations for soil application.

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 a mixture of ammonium nitrate and/or limestone as part of the fertilizer mixture may be impregnated.

Apply 300 to 700 lb of fertilizer/herbicide mixture per acre. Apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential for satisfactory weed control and to prevent possible crop injury. Non-uniform application may result in unsatisfactory weed control. In areas where conventional tillage is practiced, a shallow soil incorporation of the mixture may improve weed control.

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 pre-mixed 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 of product. A small amount of a silicon-based defoaming agent may also be needed. Make sure Strongarm is completely and uniformly dispersed in water. Add sufficient water to adjust the total volume of the mixture to deliver a spray volume of 0.5 to 1 gallon of fertilizer per ton. Nozzles used to spray Strongarm onto the fertilizer should be placed to provide uniform spray coverage. 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 formulations, the Strongarm/water pre-mix should be added to the liquid mixing tank first. If additional water is required, this should be added next, followed by the emulsifiable concentrate. Care should be taken to avoid over-saturating the dry fertilizer with liquid. For this reason the volume of water in the mixing tank should be roughly equivalent to the volume of emulsifiable concentrate added to the mixing tank. Depending upon the specific dry fertilizer blend and the emulsifiable concentrate application rates, it may be necessary to increase the fertilizer application rates to avoid over-saturating the dry fertilizer. Over-saturation can result in a mixture with poor flow properties and increase residues of Strongarm left in the blending equipment.

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

Note: Thoroughly clean dry fertilizer blending and application equipment prior to use with other herbicides. It is important to thoroughly clean the blender, herbicide spray tank, and spraying apparatus. Rinse the sides of the blender and the herbicide tank with water. Clean spraying apparatus prior to preparing fertilizer/herbicide mixtures for crops other than peanuts or soybeans (see Spray Equipment Clean Out Procedures). If the following crop is peanuts or soybeans, flushing may be accomplished by running one to two loads of dry fertilizer, which

must be used only in peanuts or soybeans. Inspect the equipment carefully for any spray build-up 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 may be necessary if the blender batch of Strongarm was "wet" due to over-saturating the fertilizer, or if the subsequent application is for a crop known to be highly sensitive to Strongarm.

Alternately, an effective cleaning procedure is 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.

Limitations, Restrictions, and Exceptions

Peanuts

(All States Except New Mexico, Oklahoma and Texas)

Apply with ground equipment using a standard low pressure (20 to 40 psi) herbicide sprayer equipped with nozzles that provide uniform spray coverage. For best results, use a spray volume of 10 gallons or more per acre for soil applications. Use sufficient spray volume to provide uniform coverage. Maintain sufficient agitation during mixing and spraying to ensure a uniform spray mixture. It is not recommended to use screens in spray lines and nozzles finer than 50 mesh (100 mesh is finer than 50 mesh).

Application Rates and Broadleaf Weeds Controlled by Soil Applications

Strongarm will not control known ALS resistant biotypes of weeds listed below.

Note: Numbers in parentheses (-) refer to footnotes following table.

Application Methods for Soil Applications

Strongarm may be used in various tillage programs including 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.

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

inches of water (apply a minimum of 0.5 inches of water if soil conditions are dry). Cultivation, a tank mixture, or applications of postemergence herbicides may also be needed to achieve the desired level of control. If cultivation is required, it should be shallow to avoid excessive movement of treated soil and to avoid exposing weed seed buried deep within the soil.

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. When incorporated, Strongarm and other herbicides 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.

Preplant Surface Application: Apply Strongarm alone or in tank mix combination with other herbicide(s) registered for preplant soil surface application to peanuts. Apply to a seedbed that is relatively free of clods. Do not apply Strongarm more than four 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 to 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 incorporation (i.e., 2 inches deep) prior to planting should be done 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 WeatherMAX, Glyphomax XRT herbicide, or Durango herbicide. Note: Reduced weed control in the planted row may occur if untreated soil is exposed during the planting operation if surface applications are not incorporated prior to planting.

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 herbicide such as Gramoxone Max, Roundup WeatherMAX, Glyphomax XRT, or Durango may be tank mixed with Strongarm to control existing weeds. Do not rely on Strongarm for postemergence

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

Strongarm Followed by Postemergence Application

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

Method

[Broadcast/Foliar Ground Surface](#)

Pre-Harvest Interval

30 days

Rates

[field rates 0](#)

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Restricted Entry Interval

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.

Tillages

[Conventional](#)

[Fallow/Reduced](#)

[No-Tillage](#)

[Minimum](#)

Timings

[Preplant](#)