

# **SOYBEANS - CONVENTIONAL TILLAGE SYSTEMS - FINE SOIL - 0.5 TO 3% ORGANIC MATTER - ANNUAL BROAD LEAVES**

## General Information

### PRODUCT INFORMATION

Observe all precautions and limitations on the labels of each product used in tank mixtures. Tank mixture partners must be registered in states where they are used. Refer to and follow the label for each tank mix product used.

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

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

- Avoid treating powdery dry or light sand 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.
- Do not use tailwater from the first flood or furrow irrigation of treated fields to treat non-target crops, unless at least ½ inch of rainfall has occurred between application and the first irrigation.

Ground Spray Equipment: Apply Ledger alone or in tank mixtures by ground equipment in a minimum of 10 gal. of spray mixture per acre, unless otherwise specified.

Use sprayers that provide accurate and uniform application. Calibrate the sprayer before use at the beginning of the season. For Ledger tank mixtures with wettable powder or dry flowable formulations, screens and strainers should be no finer than 50-mesh.

### Center Pivot Irrigation Application

If chemigating, apply this product only through a center pivot irrigation system. Do

not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension specialists, equipment manufacturers, or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system, unless the pesticide label-prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Precaution for center pivot applications: Where sprinkler distribution patterns do not overlap sufficiently, unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result.

Aerial Application: Apply Ledger in water using a minimum spray volume of 2 gal./A. Avoid application under conditions where uniform coverage cannot be obtained or where excessive spray drift may occur. Make applications at a maximum height of 10 ft. above the crop with low-drift nozzles at a maximum pressure of 40 psi. Avoid application to humans or animals. Flagmen and loaders should avoid inhalation of spray mist and prolonged contact with skin.

Impregnation onto Dry Bulk Granular Fertilizers Many dry bulk granular fertilizers may be impregnated or coated with Ledger and used to control weeds. When applying Ledger with dry bulk fertilizers, follow all directions for use and precautions on the Ledger label regarding target crops, rates per acre, soil texture, application methods, and rotational crops.

Complying with all individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application is the responsibility of the individual and/or company selling the herbicide/fertilizer mixture.

Prepare the herbicide/fertilizer mixture by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Nozzles used to spray Ledger onto the fertilizer must be spaced to provide uniform spray coverage. Care should be taken to aim the spray onto the fertilizer only, avoiding the walls of the blender.

If the herbicide/fertilizer mixture is too wet, add a highly absorptive material, such as Agsorb FG or Celatom MP-79, or similar granular clay or diatomaceous earth

materials, to obtain a dry, free-flowing mixture. Absorptive materials should be added only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results will be obtained by using a granule of 6/30 particle size or of a size similar to that of the fertilizer materials being used. Generally, less than 2% by weight of absorptive material will be needed. Avoid using more than 5% absorptive material by weight.

#### Pneumatic (Compressed Air) Application

High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer may cause fertilizer mixtures to build up or plug the distributor head, air tubes, or nozzle deflector plates. To minimize buildup, premix Ledger with Exxon Aromatic 200 at a rate of 2.0-2.5 pt./gal. of Ledger. Aromatic 200 is a noncombustible/nonflammable petroleum product. Aromatic 200 may be used in either a fertilizer blender or through direct injection systems. Drying agents should not be used when using Aromatic 200.

Restrictions: (1) Mixtures of Ledger and Aromatic 200 must be used on dry fertilizer only. Poor results or crop injury may result if these mixtures are used in water or liquid fertilizer solutions for spraying applications. (2) When impregnating Ledger in a blender before application, a drier mixture can be obtained by substituting a drying agent for Aromatic 200. The use of Agsorb FG or another drying agent of 6/30 particle size is recommended. (3) Drying agents are not recommended for use with On-The-Go impregnation equipment.

Precautions: To avoid potential for explosion, (1) Do not impregnate Ledger on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers. (2) Do not combine Ledger with a single superphosphate (1-20-0) or treble superphosphate (0-46-0). (3) Do not use Ledger on straight limestone, since absorption will not be achieved. Fertilizer blends containing limestone can be impregnated.

#### Application of Impregnated Dry Bulk Granular Fertilizer

Apply 200-700 lb. of the herbicide/fertilizer mixture per acre. For best results, apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential in order to prevent possible crop injury to subsequent rotational crops. Non-uniform application may also result in unsatisfactory weed control. In areas where

conventional tillage is practiced, a shallow incorporation of the mixture into the soil is recommended to obtain satisfactory weed control. On fine- or medium-textured soils in areas where soil incorporation is not planned, i.e., reduced-tillage situations or in some conventional till situations, make applications approximately 30 days before planting to allow moisture to move the herbicide/fertilizer mixture into the soil. On coarse-textured soils, make applications approximately 14 days prior to planting.

Precautions: To help avoid rotational crop injury, make applications as early as possible, since Ledger impregnated onto dry bulk fertilizers can be expected to last longer in the soil than Ledger applied as a spray in water or fluid fertilizer.

### Replanting

If replanting is necessary in fields previously treated with Ledger, the field may be replanted to soybeans or potatoes. Before replanting, refer to the specific crop use sections for recommendations, precautions and restrictions.

### Limitations, Restrictions, and Exceptions

#### SOYBEANS (EXCEPT CALIFORNIA)

Ledger may be applied preplant surface, preplant incorporated, preemergence, or as a sequential application to control weeds listed on the label.

#### Grazing and Feeding Treated Soybean Plants

Treated soybean plants may be grazed or fed to livestock 40 days after the last application of Ledger.

#### Rate Ranges

Where a rate range is shown, use a lower rate on soils that are coarse textured and/or low in organic matter. Use a higher rate on soils that are relatively fine-textured and/or high in organic matter.

### Replanting

If replanting is necessary in fields previously treated with Ledger, the field may be replanted to soybeans. A minimum of tillage is recommended. Do not apply a second treatment as injury to soybeans may occur.

#### Precautions (Soybeans)

Injury to soybeans or reduced weed control may occur when Ledger is used under the following conditions; these conditions should be avoided wherever possible.

- When soils have a calcareous surface area or a pH of 7.5 or higher.
- Due to the sensitivity of certain soybean varieties, Ledger is not recommended for use on Altona, AP 55, AP 71, Asgrow 6520, Burlison, Coker 102, Coker 156, Dassel, GL 3202, Govan, Maple Amber, NB 3665, NKS 1884, Paloma 350, Portage, Regal, Semmes, Terra-Vig 505, Terra-Vig 606, Tracy, Vansoy, and Vinton 81. If you choose to plant a newly released soybean variety, consult your seed supplier for information on its tolerance to metribuzin (an active ingredient in Ledger) before using Ledger.
- When applied in conjunction with soil-applied organic phosphate pesticides.
- Uneven application or improper incorporation of Ledger can decrease the level of weed control and/or increase the level of crop injury.
- When applied to any soil with less than 0.5% organic matter.
- Where soil incorporation is deeper than recommended.
- When sprayers were not calibrated accurately.
- When heavy rains occur soon after application, especially in poorly drained areas where water may stand for several days.
- When soybeans are planted less than 1-½" deep, particularly when Ledger is applied preemergence.
- Where high soil levels of atrazine are present.
- When using poor quality soybean seed.

Ledger, when applied as directed, will control the following weeds.

Ledger will provide suppression of cocklebur, common ragweed, seedling johnsongrass, velvetleaf, hairy nightshade, yellow nutsedge, Texas panicum, sandbur spp., shattercane, common sunflower, and the volunteer crops barley, sorghum, and wheat.

Annual Broadleaves: Except triazine-resistant biotypes other than Galinsoga spp., black nightshade, pigweed spp. and waterhemp spp.

Suppression means significant activity, but not always at a level considered acceptable for commercial weed control.

## Ledger in Conventional Tillage Systems

### Preplant Incorporated Application

Incorporate Ledger uniformly into the top 2 inches of soil within 14 days before planting using a disk, field cultivator, rolling cultivator, or similar implement. Apply Ledger preplant incorporated if furrow irrigation is used or when a period of dry weather after application is expected. If soybeans are planted on beds, apply and incorporate the tank mixture after bed formation.

### Preemergence Application

Dry weather following preemergence application of Ledger may reduce effectiveness. If weeds develop, cultivate uniformly with shallow tilling equipment such as a rotary hoe that will not damage soybeans.

For information on applying product in fluid or dry fertilizer, refer to Application in Water or Fluid Fertilizers or Impregnation onto Dry Bulk Granular Fertilizers and Application of Impregnated Dry Bulk Granular Fertilizer on the label.

Silty clay loam soils are transitional soils and may be classified as medium-textured soils in some regions of the U.S. When using Ledger, treat this soil as "fine-textured."

Restrictions: On soils with pH above 7.0, soybean injury caused by the metribuzin in Ledger may occur at rates higher than 1.5 pt./A. To avoid injury, do not use Ledger at rates greater than 1.5 pt./A on soils above pH 7.0.

#### Method

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Soil incorporation](#)

[Broadcast/Foliar Air](#)

[Broadcast/Foliar Ground](#)

[Soil incorporation](#)

#### 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.

#### Soils

[Fine](#)

[Silty Clay Loam](#)

[Silty Clay](#)

[Clay Loam](#)

[Clay](#)

#### Tillages

[Conventional](#)

#### Timings

[Preplant Incorporated](#)

[Preemergence \(Weed\)](#)