



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

May 26, 2020

Beth Anderson
Senior Regulatory Manager
Atticus, LLC
5000 CentreGreen Way, Suite 100
Cary, NC 27513

Subject: PRIA Label and CSF Amendment – Addition of Physical and Chemical Hazards to Label and New Basic and Alternate 1 CSF
Product Name: A342.01
EPA Registration Number: 91234-57
Application Date: 11/1/2019
Decision Number: 557704

Dear Ms. Anderson:

The amended label and CSFs referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, are acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. "To distribute or sell" is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Please note that the record for this product currently contains the following CSFs:

- Basic CSF dated 5/12/2020
- Alternate CSF 1 dated 11/1/2019

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process.

Page 2 of 2
EPA Reg. No. 91234-57
Decision No. 557704

Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Sarah Meadows by phone at 703-347-0505, or via email at meadows.sarah@epa.gov.

Sincerely,



Emily Schmid, Product Manager 25
Herbicide Branch
Registration Division (7505P)
Office of Pesticide Programs

Enclosure

[Note to reviewer: [Text] in brackets denotes optional text].
[Note to reviewer: {Text} in braces denotes where in the final label text will appear.]

{BOOKLET FRONT PANEL LANGUAGE}

Metribuzin	Group	5	Herbicide
------------	-------	----------	-----------

A342.01

Dry Flowable Herbicide

For control of certain grasses and broadleaf weeds.

ACTIVE INGREDIENT:

Metribuzin, 4-Amino-6- (1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5 (4H)-one 75.00%

OTHER INGREDIENTS: 25.00%

TOTAL: 100.00%

Contains metribuzin, the active ingredient used in SENCOR® Herbicide.

KEEP OUT OF REACH OF CHILDREN

CAUTION

See inside label booklet for First Aid, Precautionary Statements and Directions for Use.

EPA Reg. No.: 91234-57

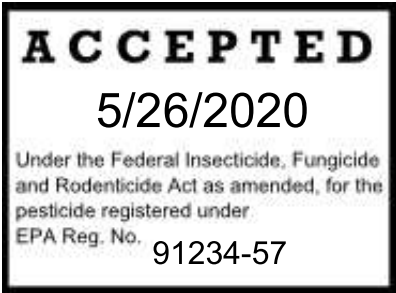
EPA Est. No.:

Net Weight:

Manufactured For:

Atticus, LLC
5000 CentreGreen Way, Suite 100
Cary, NC 27513

[A342.01] is not manufactured, or distributed by Bayer, seller of SENCOR® Herbicide.



{LANGUAGE INSIDE BOOKLET}

FIRST AID	
If swallowed:	<ul style="list-style-type: none">• Call a poison control center or doctor immediately for treatment advice.• Have person sip a glass of water if able to swallow.• Do not induce vomiting unless told to do so by a poison control center or doctor.• Do not give anything by mouth to an unconscious person.
If in eyes:	<ul style="list-style-type: none">• 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:	<ul style="list-style-type: none">• Take off contaminated clothing.• Rinse skin immediately with plenty of water for 15 to 20 minutes.• Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical assistance, call SafetyCall: 1-844-685-9173 . For chemical emergency: spill, leak, fire, exposure or accident, call CHEMTREC: 1-800-424-9300 .	

For Chemical Emergency
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

PRECAUTIONARY STATEMENTS **HAZARDS TO HUMANS AND DOMESTIC ANIMALS** **CAUTION**

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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 exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240 (d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS	
Users should:	<ul style="list-style-type: none">• Wash hands thoroughly after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.• Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.• Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL HAZARDS

For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Do not apply when weather conditions favor drift from areas treated. Do not contaminate water when disposing of equipment washwaters or rinsate.

Groundwater Advisory: Metribuzin is a chemical which can travel (seep or leach) through soil and can contaminate groundwater which may be used as drinking water. Metribuzin has been found in groundwater as a result of agricultural use. Users are advised not to apply metribuzin where the water table (groundwater) is close to the surface, and where the soils are very permeable, i.e., well-drained soils such as loamy sands. Your local agricultural agencies can provide further information on the type of soil in your area and the location of groundwater.

PHYSICAL AND CHEMICAL HAZARDS

Do not allow to come in contact with an oxidizing agent, as a hazardous chemical reaction could occur.

RESISTANCE MANAGEMENT

To minimize the occurrence of resistant weed biotypes, observe the following general weed management practices:

- Scout application site before and after herbicide applications.
- Start with a clean application site, using either a burndown herbicide application or tillage.
- Control weeds early when they are relatively small.
- Add other herbicides (e.g. a selective and/or a residual herbicide) and cultural practices (e.g., tillage or crop rotation) where appropriate.
- Utilize the specified label rate for the most difficult to control weed in your field. Avoid tank mixtures with other herbicides that reduce this product's efficacy (through antagonism), or tank mixture directions that encourage application rates of this product below the label directions.
- Control weed escapes and prevent weeds from setting seeds.
- Clean equipment before moving from field to field to minimize the spread of weed seed or plant parts.
- Report any incidence of repeated non-performance of this product on a particular weed to your Atticus, LLC representative, local retailer, or county extension agent.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

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 (WPS), 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 (REI). 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

PRODUCT INFORMATION

Mixing: It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Read and follow the applicable restrictions and limitation and directions for use on all product labels involved in the tank mixing. Users must follow the most restrictive directions for use and precautionary statements on each product in the tank mixture. When using this product, make sure the sprayer is completely clean, free of rust or corrosion which occurs from winter storage. Examine strainers and screens to be sure the sprayer is clean from previously used pesticides.

Keep any tank mix containing this product agitated and sprayed out immediately. Do not allow tank mixes to stand for prolonged periods of time.

The proper mixing procedure for A342.01 alone or in tank mix combinations with other herbicides is:

1. Fill the spray tank 1/4 to 1/3 full with clean water.
2. Add specified rate of this product while recirculating and with agitator running.
3. Follow the triple rinse procedure described under "Storage And Disposal" to ensure that all product is removed from the container.
4. Mix thoroughly and add clean water to fill spray tank to desired level.
5. Add the other herbicide to tank last and agitate thoroughly.
6. Continue agitation during application and until sprayer tank is empty.

Soil Texture: As used on this label, "coarse soils" are loamy sand or sandy loam soils. "Medium soils" are loam, silt loam, silt, sandy clay, or sandy clay loam. "Fine soils" are silty clay, silty clay loam, clay, or clay loam. Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

PRODUCT RESTRICTIONS

- Do not rotate any crop not listed on this label for 18 months following application.
- Do not allow sprays to drift on to adjacent desirable plants.
- Do not use on other crops grown for food or forage.
- For all uses: Low-pressure, high-volume hand-wand equipment is prohibited.

CHEMIGATION

This product may be used for application through sprinkler irrigation equipment to potatoes, soybeans, tomatoes, and asparagus as directed on this label. Refer to the crop sections of this label for rates, weeds controlled or suppressed, restrictions and special precautions.

Apply this product only through sprinkler (including center pivot, lateral move, or solid set) irrigation systems. 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 nonuniform distribution of treated water.

Calibration: (Center Pivot and Self-Propelled Lateral Move System): Sprinkler irrigation systems must be accurately calibrated for application of this product. Greater accuracy in calibration (and distribution) will be achieved by injecting a larger volume of a more dilute mixture of product and water per hour. Follow the steps below to calibrate center pivot and lateral move systems:

1. Determine the number of minutes required to make 1 complete revolution while applying $\frac{1}{4}$ to $\frac{3}{4}$ inch of water per acre.
2. With the system at operating pressure determine the exact number of minutes required to inject 1.0 gallon of water.
3. Divide the time required for 1 revolution (step 1) by the time required to inject 1.0 gallon (step 2). This gives total gallons of product-water mixture to be added to nurse tank.
4. Add required amount of water to nurse tank and start the agitation system. Then add this product at the appropriate rate (see Broadcast Applications) to the nurse tank.

Example: If 20 hours (1200 minutes) were required for 1 revolution and if 2 minutes were required to inject 1.0 gallon, then a total of 600 gallons of product-water mixture are required ($1200/2=600$); to treat 135 acres at 0.6 pound per acre, 90.5 pounds of this product are required.

If you have questions about calibration, contact State Extension Service Specialists, equipment manufacturer's or other experts.

Do not connect in 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.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

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

Maintain continuous agitation in the injection nurse tanks during the herbicide application, sufficient to keep herbicide in suspension.

Apply specified dosage in $\frac{1}{4}$ to $\frac{3}{4}$ inch of water ($\frac{1}{4}$ to $\frac{1}{2}$ inch of water on sandy soils) per acre as a continuous injection in center pivot and lateral move systems or in the last 15 to 30 minutes of set in permanent solid set sprinkler systems. Application of more than the quantity of irrigation water listed on

this label may result in decreased product performance by removing the chemical from the zone of effectiveness. Where sprinkler distribution patterns do not overlap sufficiently unacceptable weed control may result. Where sprinkler distribution patterns overlap excessively, crop injury may result. Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water. To ensure that lines are flushed and free of remaining pesticide, an indicator dye may be injected into the lines to mark the end of the application period.

Use a minimum of 1 part water to 1 part herbicide for injection. The use of a larger volume of water will ensure greater accuracy and more uniform distribution.

Aerial Drift Reduction Advisory Information

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment- and weather-related factors determine the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications to agricultural field crops. These requirements do not apply to forestry applications, public health uses or to applications using dry formulations.

1. The distance of the outer most nozzles on the boom must not exceed $\frac{3}{4}$ the length of the wingspan or rotor.
2. Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.
3. Where states have more stringent regulations, they must be observed.
4. The applicator should be familiar with and take into account the information covered in the Aerial Drift Reduction Advisory Information.

Information on Droplet Size: The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity and Temperature Inversions).

Controlling Droplet Size

- **Volume** – Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** – Do not exceed the nozzle manufacturer's specified pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** – Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** – Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** – Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

Boom Length: For some use patterns, reducing the effective boom length to less than $\frac{3}{4}$ of the wingspan or rotor length may further reduce drift without reducing swath width.

Application Height: Applications should not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

Swath Adjustment: When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

Wind: Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind directions and high inversion potential. Note: Local terrain can influence wind pattern. Every applicator should be familiar with local wind patterns and how they affect spray drift.

Temperature and Humidity: When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Temperature Inversions: Applications should not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

Sensitive Areas: Only apply this product when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

Application of This Product with Herbicide Spray Equipment

Use a standard low-pressure (20 to 40 psi) herbicide boom sprayer equipped with suitable nozzles and screens no finer than 50-mesh in nozzle and in-line strainers. Agitate thoroughly before and during application with bypass agitation. Low pressure and high volume hand wand equipment is prohibited.

Ground Application: Apply the proper rate of this product in a minimum of 10.0 to 40.0 gallons of spray mixture per acre broadcast.

Banded Application: Use proportionately less of this product per acre in a band versus a broadcast application. For band application use 0.25 to 1.0 gallon of spray mix per inch of band width regardless of row spacing.

Examples: (1) To treat a 15-inch band on rows 30 inches apart, use 1/2 of the broadcast rate of this product. (2) To treat a 14-inch band on rows 42 inches apart, use 1/3 of the broadcast rate of this product.

Aerial Application: Where permitted, apply specified rate in a minimum of 2.0 to 10.0 gallons of spray mixture per acre. Do not apply aerially when wind speed is greater than 10 mph.

Restriction: Do not apply aerially when this product is tank mixed with alachlor.

For All Applications of A342.01: Sprayer must be accurately calibrated before applying this product. Check sprayer during application to be sure it is working properly and delivering a uniform spray pattern. As the volume of spray mixture decreases per acre, the importance of accurate calibration and uniform application increases. Avoid over application, misapplication, and boom and spray swath overlapping that will increase spray dosage. (Crop injury may occur as a result.) Avoid spray skips and gaps which allow weeds to grow in untreated soil. Do not apply when weather conditions favor spray drift and/or when sensitive or cool season crops, such as cole crops, onions, peas, or strawberries are present in adjacent fields or in areas where wheat is growing in coarse textured soils.

Sprayer Cleanup: Spray equipment must be thoroughly cleaned to remove remaining traces of herbicide that might injure other crops to be sprayed. Drain any remaining spray solution of this product from the spray tank and dispose of according to label disposal instructions. Rinse the spray tank and refill with water, adding a heavy-duty detergent at the rate of 1 cup per 20.0 gallons of water. Recycle this mixture through the equipment for 5 minutes and spray out. Repeat this procedure twice. Fill the spray tank with clean water, recycle for 5 minutes, and spray out. Clean pump and nozzle screens thoroughly. Wash away any spray mixture from the outside of spray tank, nozzles or spray rig. All rinse water must be disposed of in compliance with local, state, and Federal guidelines.

Application of A342.01 in Fluid Fertilizers

This product may be applied in fluid fertilizer solutions to alfalfa and soybeans by following the appropriate mixing procedures and compatibility check. When using tank mix combinations, be sure all components are compatible.

Make compatibility checks of this product and tank mix combinations which include this product for each batch of fluid fertilizer because of the variability of these fertilizers.

Compatibility Check:

1. Pre-mix 2.0 teaspoonfuls of this product with 8.0 teaspoonfuls of water (1:4 ratio) in a quart jar by adding the water first and follow with this product. Mix thoroughly. If a second herbicide is to be used, double the amount of water (1:8 ratio) and add the second herbicide after mixing this product first.
2. Then pour 1.0 pint of fluid fertilizer into the quart jar and shake well.
3. Allow to stand for 5 minutes.

ONLY USE THIS COMPATIBILITY CHECK WHEN MIXING WITH FLUID FERTILIZERS.

Interpretation of Results: If the solution in the jar appears to be uniform, without signs of agglomeration, or without a separation of an oily film on top of the fertilizer, the mixture may be used. If not, repeat the compatibility check using twice the amount of water or add a compatibility agent to the water. If separation occurs, but the mixture can be resuspended by shaking, then application is possible with good agitation in the spray tank.

Tank Mixing Guidelines:

1. Add the required amount of water and compatibility agent (if required) to the tank. Start agitation system while adding this product and follow by adding the fluid fertilizer and agitate.
2. If a second herbicide is to be used, follow as above in 1, but use twice the amount of water. Start agitation, add A342.01 and follow by adding the second herbicide, and then continue filling the tank with fluid fertilizer.
3. Maintain continuous agitation to assure uniform spray mixture until the tank is emptied.

Commercial Impregnation and Application of A342.01 on Dry Bulk Fertilizer

Dry bulk fertilizer may be impregnated or coated with this product for application to established alfalfa and to soybeans. All directions, cautions, and special precautions on this label must be followed along with state regulations relating to dry bulk fertilizer blending, impregnating and labeling.

Impregnation: To impregnate, use a system consisting of a belt, conveyor, or closed drum which is used for dry bulk fertilizer blending. Any commonly used fertilizer can be impregnated with this product except ammonium nitrate, or fertilizers containing ammonium nitrate, potassium nitrate, or sodium nitrate. Do not use on powder limestone.

Apply using a minimum of 200 pounds dry bulk fertilizer per acre and up to a maximum of 450 pounds per acre. To impregnate or coat dry bulk fertilizer, mix this product with sufficient water to form a sprayable slurry. The delivery nozzles must be directed to deliver a fine spray toward the fertilizer for thorough coverage while avoiding spray contact with mixing equipment. Uniform impregnation of this product to dry bulk fertilizer will vary and if the absorptivity is not adequate, an absorptive powder may be added to produce a dry, free-flowing mixture. Micro-Cel® is the recommended absorbent powder. When another herbicide is used with this product, mix and impregnate immediately.

Apply immediately after impregnation unless experience has shown that impregnated fertilizer can be stored without becoming lumpy and difficult to spread.

Rates: Select the specified rate of this product per acre from the appropriate section of this label and refer to the formula below to determine the amount of this product which is to be impregnated on a ton of dry bulk fertilizer based on the amount of fertilizer which will be distributed on 1 acre.

$$\frac{\text{Lb A342.01}}{\text{Acre}} \times \frac{2000 \text{ Lb Fertilizer}}{\text{Acre}} = \frac{\text{Lb A342.01}}{\text{Ton of Fertilizer}}$$

Application: Uniform application is essential for satisfactory weed control. Accurate calibration of fertilizer application equipment is essential for uniform distribution to the soil surface. Apply ½ the specified rate and overlap 50% or double apply by splitting the middles to obtain the best distribution pattern.

If fertilizer materials are excessively dusty, use diesel oil or other suitable additive to reduce dust prior to impregnation, as dusty fertilizer will result in poor distribution during application. Crop injury and/or poor weed control may occur where the impregnated fertilizer is not uniformly applied.

Incorporation and Combination Uses: When this product is to be used in combination with another herbicide, follow directions on this label for combinations, rates, crops, incorporation, and special precautions.

SOYBEANS **(Except California)**

A342.01 tank mix combinations may be used for preplant incorporated applications, preemergence surface applications, Split-Shot application and Extended Split-Shot application. This product may also be used as an overlay application following a preplant incorporated application of a grass herbicide registered for this same use and alone as a pre-emergence surface application. All these applications can be applied with ground equipment, and some can be applied with aerial spray equipment. In addition, this product can be applied as a postemergence directed spray to soybeans in certain states.

Restrictions (Soybeans):

- Grazing and Feeding Treated Vines: Do not graze or feed livestock within 40 days following application when this product is applied alone or with trifluralin, metolachlor, pendimethalin, or alachlor.
- Do not use treated vines for feed or forage when this product is applied with ethalfluralin, linuron plus alachlor, or linuron plus metolachlor.

Precautions (Soybeans): Injury to soybeans may occur when this product is used under the following conditions:

- When soils have a calcareous surface area or a pH of 7.5 or higher.
- Due to the sensitivity of certain soybean varieties, this product 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. Consult your seed supplier for more information on the tolerance to A342.01 of newly released soybean varieties, prior to use of this product.
- When applied in conjunction with soil-applied organic phosphate pesticides.
- Over application or boom overlapping may result in stand loss and soil residues.
- Uneven application or improper incorporation can decrease the level of weed control and/or increase the level of injury.
- When applied to any soil with less than 0.5% organic matter.
- Soil incorporation deeper than recommended.
- When sprayers are 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 1-1/2 inches deep, particularly in preemergence application.

Activation: A minimum amount of soil moisture is required to activate this product. In areas of low rainfall, preemergence applications to dry soil should be followed with light irrigation of ¼ acre-inch of water. Do not apply heavy irrigation immediately after application. As with many surface-applied herbicides, weed control and crop tolerance may vary with rainfall and/or soil texture.

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

Replanting: If replanting is necessary in fields treated with this product as directed on this label, the field may be replanted to soybeans. When replanting use a minimum of tillage. Do not apply a second treatment as injury to soybeans may occur.

WEEDS CONTROLLED BY A342.01 and A342.01 HERBICIDE TANK-MIX COMBINATIONS													
C = Control		S = Suppression or Erratic Control			P = Poor or No Control			0 = No information					
(Control may range from poor to excellent)													
1 = A342.01 Alone 2 = A342.01 Split-Shot 3 = A342.01 plus trifluralin		4 = A342.01 plus metolachlor 5 = A342.01 plus pendimethalin 6 = A342.01 plus alachlor			7 = Extended Split-Shot 8 = A342.01 plus ethalfluralin 9 = A342.01 plus linuron plus (alachlor or metolachlor)								
Annual Broadleaf Weeds					1	2	3	4	5	6	7	8	9
Black nightshade (<i>Solanum nigrum</i>)					P	P	P	C	P	C	C	P	S
Bristly Starbur (<i>Acanthospermum hispidum</i>)					C	C	C	C	C	C	C	C	C
Buffalobur (<i>Solanum rostratum</i>)					C	C	P	P	P	P	C	P	0
Carpetweed (<i>Mollugo verticillata</i>)					C	C	C	C	C	C	C	C	C
Cocklebur (<i>Xanthium pensylvanicum</i>)					S	C	S	S	S	S	C	S	S
Copperleaf, Hophornbeam (<i>Acalypha ostryaefolia</i>)					C	C	C	C	C	C	C	C	C
Florida beggarweed (<i>Desmodium tortuosum</i>)					C	C	C	C	C	C	C	C	C
Florida pusley (<i>Richardia scabra</i>)					C	C	C	C	C	C	C	C	C
Galinsoga (<i>Galinsoga</i> spp.)					C	C	C	C	C	C	C	C	C
Horseweed Marestail (<i>Conyza canadensis</i>)					0	0	0	0	0	0	C	0	0
Jimsonweed (<i>Datura stramonium</i>)					C	C	C	C	C	C	C	C	S
Knotweed (<i>Polygonum</i> spp.)					C	C	C	C	C	C	C	C	C
Kochia (<i>Kochia scoparia</i>)					C	C	C	C	C	C	C	C	C

WEEDS CONTROLLED BY A342.01 and A342.01 HERBICIDE TANK-MIX COMBINATIONS									
C = Control		S = Suppression or Erratic Control			P = Poor or No Control			0 = No information	
(Control may range from poor to excellent)									
1 = A342.01 Alone 2 = A342.01 Split-Shot 3 = A342.01 plus trifluralin		4 = A342.01 plus metolachlor 5 = A342.01 plus pendimethalin 6 = A342.01 plus alachlor			7 = Extended Split-Shot 8 = A342.01 plus ethalfluralin 9 = A342.01 plus linuron plus (alachlor or metolachlor)				
Lambsquarters (<i>Chenopodium</i> spp.)	C	C	C	C	C	C	C	C	C
Morningglory, ivyleaf (<i>Ipomoea hederacea</i>)	P	P	S	P	P	P	P	P	P
Morningglory, pitted (<i>Ipomoea lacunosa</i>)	P	P	S	P	P	P	P	P	P
Morningglory, smallflower (<i>Jacquemontia tamnifolia</i>)	P	P	C	P	P	P	P	P	P
Morningglory, tall (<i>Ipomoea purpurea</i>)	P	P	S	P	P	P	P	P	P
Pigweeds (<i>Amaranthus</i> spp.)	C	C	C	C	C	C	C	C	C
Prickly sida/Teaweed (<i>Sida spinosa</i>)	C	C	C	C	C	C	C	C	C
Purslane (<i>Portulaca oleracea</i>)	C	C	C	C	C	C	C	C	C
Ragweed, common (<i>Ambrosia artemisiifolia</i>)	C	C	C	C	C	C	C	C	C
Redweed (<i>Melochia corchorifolia</i>)	C	C	C	C	C	C	C	C	C
Russian thistle (<i>Salsola kali</i>)	C	C	C	C	C	C	C	C	C
Sesbania (<i>Sesbania</i> spp.)	C	C	C	C	C	C	C	C	C
Shepherd's-purse (<i>Capsella bursa-pastoris</i>)	C	C	C	C	C	C	C	C	C
Sicklepod (<i>Cassia obtusifolia</i>)	C	C	S	C	S	C	C	S	S
Smartweeds (<i>Polygonum</i> spp.)	C	C	C	C	C	C	C	C	S
Spotted spurge (<i>Euphorbia maculate</i>)	C	C	P	C	P	C	C	P	0
Spurred anoda (<i>Anoda cristata</i>)	C	C	C	C	C	C	C	C	0
Sunflower (<i>Helianthus</i> spp.)	C	C	S	S	S	S	C	S	P
Velvetleaf (<i>Abutilon theophrasti</i>)	C	C	C	C	C	C	C	C	C
Venice mallow (<i>Hibiscus trionum</i>)	C	C	C	C	C	C	C	C	C
Wild mustards (<i>Brassica</i> spp.)	C	C	C	C	C	C	C	C	C
Annual Grasses									
Barnyardgrass (<i>Echinochloa crus-galli</i>)	S	C	C	C	C	C	C	C	C
Bluegrass (<i>Poa annua</i>)	C	C	C	C	C	C	C	C	C
Broadleaf signalgrass (<i>Brachiaria platyphylla</i>)	C	C	C	C	C	C	C	C	0
Browntop millet (<i>Panicum ramosum</i>)	C	C	C	P	C	S	C	0	0
Crabgrass (<i>Digitaria</i> spp.)	C	C	C	C	C	C	C	C	C
Crowfootgrass (<i>Dactyloctenium aegyptium</i>)	C	C	C	C	C	C	C	0	0
Cupgrass (<i>Eriochloa gracile</i>)	P	C	P	P	P	P	C	0	0
Foxtails (<i>Setaria</i> spp.)	S	C	C	C	C	C	C	C	C
Goosegrass (<i>Eleusine indica</i>)	C	C	C	C	C	C	C	C	C
Johnsongrass, Seedling (<i>Sorghum halepense</i>)	C	C	C	C	C	C	C	C	0
Junglerice (<i>Echinochloa colonum</i>)	C	C	C	C	C	C	C	C	0
Nutsedge, yellow (<i>Cyperus esculentus</i>)	P	P	P	C	P	C	C	P	0
Panicum, fall (<i>Panicum dichotomiflorum</i>)	P	C	C	C	C	C	C	C	C
Panicum, Texas (<i>Panicum, texanum</i>)	P	C	C	P	C	S	S	C	0
Red rice (<i>Oryza sativa</i>)	P	C	C	C	P	C	C	0	0
Sandbur (<i>Cenchrus</i> spp.)	P	C	C	P	C	S	S	0	0
Shattercane (<i>Sorghum bicolor</i>)	P	C	C	P	P	P	P	C	0
Sorghum, volunteer (<i>Sorghum</i> spp.)	P	C	C	P	P	P	P	0	P
Sprangletop (<i>Leptochloa</i> spp.)	P	C	C	P	P	P	P	0	P

WEEDS CONTROLLED BY A342.01 and A342.01 HERBICIDE TANK-MIX COMBINATIONS									
C = Control		S = Suppression or Erratic Control			P = Poor or No Control			0 = No information	
(Control may range from poor to excellent)									
1 = A342.01 Alone 2 = A342.01 Split-Shot		4 = A342.01 plus metolachlor 5 = A342.01 plus pendimethalin			7 = Extended Split-Shot 8 = A342.01 plus ethalfluralin				

3 = A342.01 plus trifluralin	6 = A342.01 plus alachlor				9 = A342.01 plus linuron plus (alachlor or metolachlor)				
Annual Grasses	1	2	3	4	5	6	7	8	9
Stinkgrass (<i>Eragrostis</i> spp.)	P	C	C	P	P	P	P	0	P
Wheat, volunteer (<i>Triticum</i> spp.)	P	P	P	P	P	P	P	0	P
Witchgrass (<i>Panicum capillare</i>)	P	C	C	C	C	C	C	C	0

A342.01 Alone

A342.01 (Alone) Preemergence Application: The following rates of this product may be applied preemergence to soybeans through center pivot or lateral move sprinkler irrigation systems that apply water in a uniform manner. Refer to “Chemigation” section of this label for directions.

This product can be applied broadcast or banded. This application may be made during planting or as a separate operation after planting but before crop emergence. See the “Product Information” section in the front of this label.

Do not apply to sand soils, or to sandy loam or loamy sand soils containing less than 2% organic matter. Do not incorporate into soil or apply more than once per season.

Pounds of A342.01/A			
Organic Matter			
Soil Texture	Less than 2%	2 to 4%	Over 4%
Coarse Soils (Sandy loam, loamy sand)	DO NOT USE ³	0.5	0.6
Medium Soils ¹ (loam, silt loam, silt, sandy clay, sandy clay loam)	0.5 to 0.6	0.6 to 0.83	0.83 to 1.0
Fine Soils ¹ (Silty clay, silty clay loam ² , clay, clay loam)	0.6 to 0.83	0.83 to 1.0	1.0 to 1.16
Mississippi Delta Only	1.0	1.16	1.3

¹For control of Lambsquarters, Redroot pigweed and Wild mustard, and for suppression of Green, Yellow and Giant foxtails on alkaline (calcareous) soils in Nebraska, Minnesota, South Dakota and North Dakota only, apply this product at rates of 0.3 pound per acre on medium soils and 0.3 to 0.5 pound per acre on fine soils regardless of soil organic matter percentage (use 0.5 pound only where soil pH is less than 7.5 and weed pressure is heavy). The 0.3 pound per acre rate of this product alone can be applied regardless of soil pH. For control of other weeds listed on this label use this product at full rates specified in the table above, but note that crop injury may occur on soils having a calcareous surface area or a pH of 7.5 or higher.

²Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

³Refer to the appropriate section of this label for use of this product on soybeans in coarse soils with 0.5% or more organic matter in certain states.

Uses of A342.01 in Combination with Other Herbicides

Sequential Application of Imazaquin Following A342.01

If needed, application of **A342.01** alone or in a registered tank-mix according to directions on this label, may be followed by an early post-emergence application of imazaquin (refer to product label for use rate and application information for control of cocklebur) for control of cocklebur. Do not use imazaquin when soybeans or cockleburs have been subjected to stress conditions such as temperature or moisture extremes. Wait at least 10 days after application of imazaquin before cultivating. When preparing the spray mixture with imazaquin, add 2 pts. of non-ionic surfactant approved for use on growing crops and containing at least

80% active ingredient per 100 gals. of mixture. Apply crop oil concentrate (COC) at the rate specified on the COC label.

Use imazaquin only in the state where it is registered as listed on the product label.

Apply imazaquin at least 90 days before harvest of soybeans. Do not graze or feed soybean forage, hay, or straw to livestock.

Refer to the imazaquin label for additional cautions and precautions, directions, limitations, and information on environmental hazards and planting of rotational crops.

Split-Shot Application

A preplant incorporated application of this product tank mixed with either trifluralin, alachlor, metolachlor, pendimethalin or ethalfluralin and followed by a preemergence surface application of this product alone after planting but prior to soybean emergence, will control more broadleaf and grass weeds in soybeans than when either herbicide is used alone.

Refer to the trifluralin, alachlor, metolachlor, pendimethalin or ethalfluralin labels, and to appropriate sections of this label for directions on soil preparation, herbicide application, incorporation techniques, herbicide rates, weed species controlled, and restrictions for using tank mix combinations of this product. Carefully observe the “Special Precautions” section concerning the use of this product in tank mix combinations of soybeans.

When a Split-Shot application of this product with pendimethalin, trifluralin, or ethalfluralin is used, the preplant incorporated tank mix may be applied up to 21 days prior to planting soybeans; with metolachlor or alachlor, the preplant incorporated tank mix may be applied up to 14 days prior to planting.

On medium and fine textured soils with greater than 2% organic matter, a rate range is provided for the preemergence overlay application of this product. Use the higher rate (a) in fields with a history of severe broadleaf weed pressure, (b) when the time between preplant incorporated tank mix and preemergence overlay applications approaches the maximum stated above, and/or (c) when the organic matter content of the soil is at the upper end of the indicated range.

For Black Nightshade control, refer to the appropriate sections of the alachlor, metolachlor or ethalfluralin labels for specific instructions.

SPLIT-SHOT APPLICATION

Preplant Incorporated Tank-Mix Application – Followed By – Preemergence Overlay Application						
Soil Texture ¹	Rate of Combination Product/A	Plus	Rate of A342.01 Lb/A	Rate of A342.01/A Organic Matter		
				Less than 2.0%	2.0% to 4.0%	Over 4.0%
Coarse (Light) sand, loamy sand, sandy loam	See reference ⁴	plus	0.3 – Followed By	0.16	0.16	0.16 to 0.3
Medium loam, silt loam, sandy clay loam, silt, sandy clay	See reference ⁴	plus	0.5 – Followed By or 0.3 ² – Followed By	0.16 0.3	0.16 to 0.3 0.3 to 0.5	0.3 to 0.5 (0.5 to 0.6) ³
Fine (Heavy) silty clay loam*, clay loam, silty clay, clay	See reference ⁴	plus	0.6 – Followed By or 0.5 ² – Followed By	0.16 0.3	0.16 to 0.3 0.3 to 0.5	0.3 to 0.5 (0.5 to 0.6) ³

*Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

¹On **coarse textured** soils, do not use on sand soils with less than 1% organic matter, or on loamy sand or sandy loam soils with less than 0.5% organic matter. However, on coarse textured soils **with calcareous surface area or a pH of 7.5 or higher**, do not use on sand soils less than 2% organic matter, or on loamy soils with less than 1% organic matter.

²Use this lower rate of this product in the preplant incorporated tank mix **on soils having a calcareous surface area of a pH of 7.5 or higher**, and in those situations where soils within a field vary extremely in texture or organic matter content.

³Reduce this preemergence overlay rate of this product by 0.16 pound per acre when using Split-Shot application **on soils with over 4% organic matter and which have a calcareous surface area or a pH of 7.5 or higher**.

⁴Refer to the specific trifluralin, alachlor, metolachlor, pendimethalin, or ethalfluralin product label instructions.

Extended Split-Shot Application

(Includes No-till, Reduced-till, Ridge-till, Strip-till, Mulch-till)

An early preplant (surface-applied or shallow incorporated) application of this product tank mixed with either metolachlor or alachlor, followed by a preemergence surface application of this product tank mixed with metolachlor or alachlor after planting but prior to soybean emergence, will control more broadleaf and grass weeds in soybeans than either herbicide used alone.

An Extended Split-Shot application will decrease the need for tillage and/or contact herbicides for the control of existing vegetation prior to planting, while providing residual control of weeds after planting.

When an Extended Split-Shot application of this product with metolachlor or alachlor is used, the preplant tank mix combination may be applied 15 to 30 days prior to planting soybeans. Follow directions on the label accompanying the product for Split-Shot applications from 0 to 14 days before planting.

Where a rate range is specified, use the higher rate (a) in fields with a history of severe weed pressure, (b) when the time between early preplant tank mix and preemergence overlay applications the maximum 30 days, (c) when the organic matter content of the soil is at the upper end of the indicated range, (d) when heavy crop residues are present on the soil surface, and/or (e) when the early preplant tank mix application is shallow incorporated (e.g., use 2.0 to 2.5 quarts alachlor in the early preplant tank mix when surface applied and use 2.5 to 3.0 quarts alachlor when the tank mix is to be lightly incorporated).

When weeds exceed 1 to 1-1/2 inches in height or diameter at application, use a contact herbicide, such as glyphosate (glyphosate) or paraquat.

Refer to the metolachlor or alachlor label, and to appropriate sections of this label for additional information on soil preparation, herbicide application, weeds controlled, precautions, restrictions, limitations and sprayer clean up.

EXTENDED SPLIT-SHOT APPLICATION

Early Preplant Tank Mix Application (Surface-Applied or Shallow Incorporated)				Followed By	Preemergence Overlay Application				
Soil Texture ¹	Rate of Combination Product/A	Plus	Rate of A342.01 Lb/A		Rate of Combination Product/A	Plus	Rate of A342.01 Lb/A Organic Matter		
							Less than 2.0%	2.0% to 4.0%	Over 4%
Coarse (Light) sand, loamy sand, sandy loam	See reference ³	plus	0.3 to 0.5	metolachlor or alachlor	0.44 pt See reference ³	plus	0.16	0.16 to 0.3	0.3

Medium loam, silt loam, sandy clay loam, silt, sandy clay	See reference ³	plus	0.5 to 0.6 ²	metolachlor or alachlor	0.5 pt See reference ³	plus	0.3	0.3 to 0.5	0.5 to 0.6
Fine (Heavy) silty clay loam*, clay loam, silty clay, clay	See reference ³	plus	0.6 to 0.83 ²	metolachlor or alachlor	0.6 pt See reference ³	plus	0.3	0.3 to 0.5	0.5 to 0.6

*Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

¹On **coarse textured** soils, do not use on sand soils with less than 1% organic matter. However, on coarse textured soils with **calcareous surface area or a pH of 7.5 or higher**, do not use on sand soils less than 2% organic matter, or on loamy sand or sandy loam soils with less than 1% organic matter.

²Use the lower rate of this product in the early preplant tank mix on **soils having a calcareous surface area of a pH of 7.5 or higher, and in those situations where soils within a field vary extremely in texture or organic matter content.**

³Refer to the specific metolachlor or alachlor product label instructions.

A342.01 plus Ethalfluralin

A342.01 plus Ethalfluralin Overlay Application: This product may be applied as a preemergence overlay application following a preplant incorporated application of ethalfluralin 3 EC. Consult the ethalfluralin label for specific directions on use, recommendations, restrictions and any additional weeds not specified on this label.

A342.01 plus Ethalfluralin Tank Mix Application: Incorporate the tank mixture into the top 1 to 2 inches of soil within 21 days before planting according to label directions for ethalfluralin.

Apply A342.01 plus ethalfluralin 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.

Mixing: Refer to the “Product Information” section in the front of this label.

Application: Apply ethalfluralin uniformly and thoroughly mixed into the soil within 2 days after application. For specific application information, refer to the “Application” under “Product Information” section in the front of this label.

Precautions (A342.01 plus Ethalfluralin): For additional precautions, restrictions, limitations, incorporation, and sprayer clean up information, refer to the appropriate sections of this label and the ethalfluralin label.

For Black nightshade control, refer to the ethalfluralin label for specific rates and application instructions.

Broadcast Rates		
Soil Texture	A342.01 Lb/A	Ethalfluralin 3EC Pt/A
Coarse ¹ (Sandy loam, loamy sand)	0.3	See reference ⁴
Medium ³ (Loam, silt loam, silt, sandy clay, sandy clay loam)	0.5	See reference ⁴
Fine ³ (Silty clay, silty clay loam ² , clay, clay loam)	0.6	See reference ⁴

¹Do not use on coarse soils with less than 1% organic matter.

²Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

³For control of Lambsquarters, Redroot pigweed, Wild mustard, and Green and Yellow foxtails on alkaline (calcareous) soils in Minnesota, Nebraska, South Dakota, and North Dakota only, apply this product at rates of 0.3 pound per acre on medium soils and 0.3 to 0.5 pound per acre on fine soils regardless of soil organic matter percentage (use 0.5 pound only where soil pH is less than 7.5 and weed pressure is heavy). The 0.3 rate of this product in tank mix combination with ethalfluralin can be applied regardless of soil pH. For control of other weeds not listed on the label, use this product at full rates specified in the table above, **but note that crop injury may occur on soils having a calcareous surface area or a pH of 7.5 or higher.**

⁴Refer to the specific ethalfluralin product label instructions.

A342.01 plus Trifluralin

A342.01 and Trifluralin Overlay Application: This product may be applied as a preemergence broadcast or band overlay application following a pre-plant incorporated treatment of Trifluralin HF. Consult the Trifluralin HF label for specific directions for use, recommendations, restrictions and any additional weeds not specified on this label.

A342.01 plus Trifluralin Tank Mix Application: A single application of a tank mix combination of A342.01 and trifluralin EC will control more broadleaf and grass weeds in soybeans than when either herbicide is used alone.

Prepare the soil surface by deep plowing, offset disking or tandem disking prior to the application of the herbicide combination. The soil surface should be well prepared and free of clods and trash.

This product plus trifluralin tank mix combination may be applied and incorporated into the soil up to 10 days before planting.

Mixing: Refer to the “Product Information” section in the front of this label.

Application: For specific application information refer to the “Product Information” section in the front of this label.

Apply A342.01 plus trifluralin to the soil surface and incorporate in the same operation, if possible. Variable weed control may result from delayed incorporation if A342.01 plus trifluralin are applied to a wet, warm surface or if the wind velocity is 10 mph or higher. Use machinery that mixes A342.01 plus trifluralin thoroughly with the soil. Incorporation may be delayed up to 24 hours after application. Shallow incorporation with implements set to cut less than 2 inches deep may result in erratic weed control. Do not use spike or spring-tooth harrow alone or incorporation.

Incorporation Equipment:

1. Set PTO-driven equipment (tillers, cultivators, hoes) to cut 2 to 3 inches deep and space rotors to provide a clean sweep of the soil. Do not operate PTO equipment at a speed greater than 4 mph.
2. Set disk to cut 4 to 6 inches deep and operate twice in different directions at 4 to 6 mph.
3. Set mulch treader and other similar disk-type implements to cut 3 to 4 inches deep and operate twice in different directions at 5 to 8 mph.

For coarse and medium textured soils only:

4. Set rolling cultivator to cut 2 to 4 inches deep and operate twice at 6 to 8 mph. Set bed conditioner (Do-all) to cut 2 to 4 inches deep and operate at 4 to 6 mph.

Broadcast Rates		
Soil Texture	A342.01 Lb/A	Trifluralin EC Pt/A
Coarse¹ (Sandy loam, loamy sand)	0.3	See reference ⁴

Medium (Loam, silt loam, silt, sandy clay, sandy clay loam)	0.5	See reference ⁴
Fine (Silty clay, silty clay loam ² , clay, clay loam) ³	0.6	See reference ⁴

¹Do not use on coarse soils with less than 1% organic matter.

²Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

³For control of Lambsquarters, Redroot pigweed, Wild mustard, and Green and Yellow foxtails on alkaline (calcareous) soils in Minnesota, Nebraska, South Dakota, and North Dakota only, apply this product at rates of 0.3 pound per acre on medium soils and 0.3 to 0.5 pound per acre on fine soils regardless of soil organic matter percentage (use 0.5 pound only where soil pH is less than 7.5 and weed pressure is heavy). The 0.3 pound rate of this product in tank mix combination with trifluralin can be applied regardless of soil pH. For control of other weeds not listed on the label, use this product at full rates specified in the table above, **but note that crop injury may occur on soils having a calcareous surface area or a pH of 7.5 or higher.**

⁴Refer to the specific trifluralin product label instructions.

Precautions (A342.01 plus Trifluralin): Seedling disease, cold weather, excessive moisture, high salt concentration or drought may weaken soybean seedlings and increase possibility of damage from tank mix. Do not plant soybeans deeper than 2 inches. Do not rotate any crop not listed on this label for 18 months following application.

In the Central United States, do not plant sorghum or oats for 12 months where the tank mix has been applied unless 20 inches or more of irrigation and/or rainfall (total) was used to produce the crop. If less than 20 inches total water was used to produce the crop during the year, do not plant either crop for 18 months after the tank mix application. Cool, wet weather conditions during the early stage of growth may increase the possibility of injury to sorghum.

For additional precautions, restrictions, limitations and sprayer clean-up information refer to the appropriate section of this label. Do not use this tank mix combination on soils containing charcoal in Arkansas, Louisiana and Mississippi.

A342.01 plus Metolachlor

A342.01 plus Metolachlor Overlay Application: Apply a preplant incorporated treatment of metolachlor as directed on that product label for use on soybeans. Follow with a preemergence treatment of this product as directed on this label for use on soybeans.

A342.01 plus Metolachlor Tank Mix Applications

Preplant Incorporated Application: Incorporate the tank mixture into the top 2 inches of soil within 14 days before planting using a disk, harrow, rolling cultivator, or similar implement.

Apply A342.01 plus metolachlor 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 this product plus metolachlor tank mixture may reduce effectiveness. If weeds develop, cultivate uniformly with shallow tillage equipment such as rotary hoe that will not damage soybeans.

Mixing Instructions: Refer to the "Product Information" section in the front of this label.

Broadcast Rates A342.01 Plus Metolachlor Tank Mix Preemergence Applications
--

0.5% to 3% Organic Matter		
Soil Texture	A342.01 Lb/A	Metolachlor Pt/A
Coarse ¹ (Loamy sand, sandy loam)	0.3	See reference ³
Medium (Loam, silt loam, silt)	0.5	See reference ³
Fine (Silty clay loam ² , sandy clay loam, silty clay, sandy clay, clay loam, clay)	0.6	See reference ³
Mississippi Delta Only (Silty clay, clay)	1.0	See reference ³
Over 3% Organic Matter		
Coarse ¹ (Loamy sand, sandy loam)	0.5	See reference ³
Medium (Loam, silt loam, silt)	0.6	See reference ³
Fine (Silty clay loam ² , sandy clay loam, silty clay, sandy clay, clay loam, clay)	0.6 to 0.83	See reference ³
Mississippi Delta Only (Silty clay, clay)	1.0	See reference ³

¹Do not use on sand soils. Do not apply this product and metolachlor overlay or tank mix preemergence on loamy sand with less than 2% organic matter.

²Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

³Refer to the specific metolachlor product label instructions.

Broadcast Rates A342.01 Plus Metolachlor Tank Mix Preplant Incorporated Applications 0.5% to Less than 3% Organic Matter		
Soil Texture	A342.01 Lb/A	Metolachlor Pt/A
Coarse ¹ (Loamy sand, sandy loam)	0.3	See reference ³
Medium (Loam, silt loam, silt)	0.5	See reference ³
Fine (Silty clay loam ² , sandy clay loam, silty clay, sandy clay, clay loam, clay)	0.6	See reference ³
Mississippi Delta Only (Silty clay, clay)	0.6 to 0.83	See reference ³
3% or Greater Organic Matter		
Coarse ¹ (Loamy sand, sandy loam)	0.3	See reference ³
Medium (Loam, silt loam, silt)	0.5	See reference ³
Fine (Silty clay loam ² , sandy clay loam, silty clay, sandy clay, clay loam, clay)	0.6	See reference ³
Mississippi Delta Only (Silty clay, clay)	0.6 to 0.83	See reference ³

¹Do not use on sand soils. Do not apply this A342.01 plus metolachlor tank mix preplant incorporated on sand or loamy sand with less than 2% organic matter or crop injury may occur.

²Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

³Refer to the specific metolachlor product label instructions.

Precautions (A342.01 and Metolachlor)

For additional precautions, restrictions, limitations, and sprayer clean-up information refer to the appropriate sections of this label and the metolachlor label.

A342.01 Plus Pendimethalin

A342.01 plus Pendimethalin Overlay Application: Apply a preplant incorporated treatment of pendimethalin as directed on that product label for use on soybeans. Follow with a preemergence treatment of this product as directed on this label for use on soybeans.

A342.01 plus Pendimethalin Tank Mix Application

Preplant Incorporated Application: Prepare the soil by plowing or disking to mix previous crop residues into the soil to a depth of 4 to 6 inches.

For specific application information refer to the “Product Information” section in the front of this label.

Incorporate the tank mixture into the top 1 or 2 inches of soil within 7 days after application according to label directions for pendimethalin. Mechanical incorporation is not required if a rain of ¼ inch or more occurs within 7 days after application. Soybeans must be planted no later than 7 days after application of the tank mixture.

Preemergence Application: Except for minimum and no-tillage systems, the seed bed should be firm and free of trash and clods.

For specific application information refer to the “Product Information” section in the front of this label. Do not apply pendimethalin preemergence north of Interstate 80. This application must be made after planting and before crop emergence. Do not incorporate.

If cultivation is necessary because of soil crusting, soil compaction or weed germination before rain or irrigation, use shallow tilling equipment such as a rotary hoe that does not damage soybeans.

Mixing Instructions: Refer to the “Product Information” section in the front of this label.

For information on applying this product in fluid or dry fertilizer refer to the “Application of A342.01 in Fluid Fertilizers” or “Commercial Impregnation and Applications of A342.01 on Dry Bulk Fertilizer” under the “Product Information” section in the front of this label.

Southern States and Eastern Coastal Plains

For use only in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, Southeastern Missouri “Bootheel” Region and Coastal Plains of Delaware*, Maryland*, New Jersey*, and Virginia*.

*Do not use A342.01 plus pendimethalin on soils with less than 2% organic matter in the coastal plain of New Jersey or the Delmarva Peninsula.

Broadcast Rates		
A342.01 Plus Pendimethalin Tank Mix Applications		
Soil Texture	A342.01 Lb/A	Pendimethalin Pt/A
Coarse ¹ (Sandy loam, loamy sand)	0.3	See reference ³
Medium (Loam, silt loam, silt, sandy clay, sandy clay loam)	0.5	See reference ³
Fine (Silty clay, silty clay loam ² , clay, clay loam)	0.6	See reference ³

¹Do not use on sand soils. Do not use on loamy sand or sandy loam containing less than 1% organic matter.

²Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

Do not use on muck or peat soils.

³Refer to the specific pendimethalin product label instructions.

Northeastern and North Central States

For use only in Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Nebraska, New York, North Dakota, Ohio, Pennsylvania, South Dakota, Wisconsin and Missouri (except the “Bootheel” region).

Broadcast Rates		
A342.01 Plus Pendimethalin Tank Mix Applications		
0.5% to 3% Organic Matter		
Soil Texture	A342.01 Lb/A	Pendimethalin Pt/A
Coarse ¹ (Sandy loam, loamy sand)	0.3	See reference ³
Medium (Loam, silt loam, sandy clay, sandy clay loam)	0.5	See reference ³
Fine (Silty clay, silty clay loam ² , clay, clay loam)	0.5 to 0.6	See reference ³
Over 3% Organic Matter		
Coarse ¹ (Sandy loam, loamy sand)	0.5	See reference ³
Medium (Loam, silt loam, sandy clay, sandy clay loam)	0.5 to 0.6	See reference ³
Fine (Silty clay, silty clay loam ² , clay, clay loam)	0.6 to 0.83	See reference ³

¹Do not use on sand soils. Do not use on loamy sand or sandy loam containing less than 1% organic matter. Where a range of rates is shown for medium and fine soils, use the higher rate if heavy weed infestations are anticipated.

²Silty clay loam soils are transitional soils and may be classified as medium textured soils in certain regions of the U.S.

Do not use on much or peat soils.

³Refer to the specific pendimethalin product label instructions.

Precautions (A342.01 plus Pendimethalin): Soil incorporation deeper than recommended will reduce weed control and can result in crop injury.

For additional precautions, restrictions, limitations, and sprayer clean-up information, refer to the appropriate sections of this label and the pendimethalin label.

A342.01 Plus Alachlor

A342.01 Plus Alachlor Tank Mix Application:

Preemergence

A342.01 may be used in tank mix combination with alachlor as a preemergence band or broadcast application to soybeans in accordance with the specified soil types and dosages specified.

For specific information regarding spray equipment, dilution rates, mixing, directions for use, methods of application, limitations and restrictions refer to the appropriate section of this label.

Refer to the alachlor label for pertinent recommendations, directions for use, restrictions and any additional weeds not specified on this label.

Do not use on muck soils.

Applications			
A342.01 Plus Alachlor Tank Mix Preemergence Application (Broadcast Rates)			
Soil Texture	A342.01 Lb/A	Plus	Alachlor Qt/A
0.5 to 3% Organic Matter			
Coarse ¹ (Sandy loam)	0.3	plus	See reference ⁴

Medium ² (Loam, silt loam, silt, sandy clay, sandy clay loam)	0.5	plus	See reference ⁴
Fine ² (Silty clay, silty clay loam ³ , clay, clay loam)	0.6	plus	See reference ⁴
Mississippi Delta Only (Silty clay to heavy clay)	1.3	plus	See reference ⁴
Greater than 3% Organic Matter			
Coarse ¹ (Sandy loam)	0.5	plus	See reference ⁴
Medium ² (Loam, silt loam, silt, sandy clay, sandy clay loam)	0.6	plus	See reference ⁴
Fine ² (Silty clay, silty clay loam ³ , clay, clay loam)	0.6 to 0.83	plus	See reference ⁴
Mississippi Delta Only (Silty clay to heavy clay)	1.3	plus	See reference ⁴

¹Do not use A342.01 plus alachlor on sand or loamy sand soils with less than 2% organic matter.

²For control of Lambsquarters, Redroot pigweed, Wild mustard, Green and Yellow foxtails on alkaline (calcareous) soils in Minnesota, Nebraska, South Dakota, and North Dakota only, apply A342.01 at rates of 0.3 pound per acre on medium soils and 0.3 to 0.5 pound per acre on fine soils regardless of soil organic matter percentage (use 0.5 pound only where soil pH is less than 7.5 and weed pressure is heavy). The 0.3 pound per acre rate of A342.01 in tank mix combination with alachlor can be applied regardless of soil pH. For control of other weeds use this product at full rates specified in the table above, but note that crop injury may occur on soils having a calcareous surface area or a pH of 7.5 or higher.

³Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

⁴Refer to the specific alachlor product label instructions.

Preplant Incorporated: For specific application information refer to the “Product Information” section in the front of this label.

Apply A342.01 plus alachlor preplant incorporated if furrow irrigation is used or when a period of dry weather application is expected. If soybeans are planted on beds, apply and incorporate the tank mixture after bed formation. Apply within 7 days prior to planting and shallowly incorporate into the upper 1 to 2 inches of soil.

Do not use on muck soils.

Applications		
A342.01 Plus Alachlor Tank Mix Preplant Incorporated Application (Broadcast Rates)		
Soil Texture	A342.01 Lb/A	Alachlor Qt/A
Coarse ¹ (Loamy sand [over 2% organic matter], sandy loam)	0.3	See reference ³
Medium (Loam, silt loam, silt)	0.5	See reference ³
Fine (Silty clay loam ² , sandy clay loam, silty clay, sandy clay, clay loam, clay)	0.6	See reference ³
Mississippi Delta Only (Silty clay, clay)	0.6 to 0.83	25 to 3.0

¹Do not use A342.01 plus alachlor on sand or loamy sand soils with less than 2% organic matter.

²Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

³Refer to the specific alachlor product label instructions.

Restrictions (A342.01 Plus Alachlor):

- For additional precautions, restrictions, limitations and sprayer clean-up information, refer to the appropriate sections of this label and the alachlor label.

A342.01 Plus Clomazone

A342.01 may be applied in combination with clomazone as a preplant or shallow incorporated application for the control of certain weeds in soybeans. Consult the clomazone label for specific directions on use, recommendations, restrictions and any additional weeds not specified on this label.

Restrictions (A342.01 Plus Clomazone):

- Do not apply this tank mix within 1000 feet of towns and subdivisions, commercial vegetable, fruit, nurseries or greenhouse operations.

Mixing: Refer to the “Product Information” section in the front of this label.

Applications: A342.01 plus clomazone 4EC may only be applied with ground equipment as a preplant or shallow incorporated application. A342.01 plus clomazone 4EC should be immediately incorporated into the top 1 to 3 inches after application unless surface is dry. On dry soils, incorporate into the top 1 to 3 inches within 3 hours of tank mix application.

Apply in a minimum of 15.0 gallons spray volume per acre with appropriate nozzle types and sizes to produce a coarse spray droplet. The use of an approved agricultural drift reducing additive should be used for application volumes of 15.0 to 40.0 gallons per acre. The use of an approved agricultural drift reducing additive is required at spray volumes of 10.0 to 15.0 gallons per acre.

NOTE: Off-site movement of clomazone spray drift or vapors can cause foliar whitening or yellowing of some vegetation. Prior to application of clomazone, read and strictly follow all precautions and application instructions as set forth in that label.

For additional information on application, refer to the “Product Information” section in the front of this label and the clomazone label.

Weeds Controlled:

Bristly Starbur	Florida Pusley	Pigweeds	Smartweeds
Carpetweed	Galinsoga	Prickly sida/Teaweed	Spurred anoda
Common ragweed	Jimsonweed	Purslane	Velvetleaf
Copperleaf	Knotweed	Redweed	Venice mallow
Florida beggarweed	Lambsquarters	Sesbania	Wild mustards
Barnyardgrass*	Fall Panicum*	Johnsongrass (seedling)*	
Bluegrass	Foxtails (Green, Giant, Yellow*, Robust purple)	Texas Panicum	
Broadleaf Signalgrass	Goosegrass	Witchgrass	
Crabgrass*			

Use 2.0 pints per acre clomazone on coarse and medium textured soils with high populations of these weeds.

Applications		
A342.01 Plus clomazone Tank Mix Preplant Incorporated Application (Broadcast Rates)		
Soil Texture¹	A342.01 Lb/A	clomazone Pt/A
0.5% to 3% Organic Matter		
Coarse² (Sandy loam, loamy sand)	0.3	See reference ⁴
Medium (Loam, silt loam, silt, sandy clay, sandy clay loam)	0.3 to 0.5	See reference ⁴

Fine (Silty clay, silty clay loam ³ , clay, clay loam)	0.3 to 0.5	See reference ⁴
Over 3% Organic Matter		
Coarse ² (Sandy loam, loamy sand)	0.3	See reference ⁴
Medium (Loam, silt loam, silt, sandy clay, sandy clay loam)	0.3 to 0.5	See reference ⁴
Fine (Silty clay, silty clay loam ³ , clay, clay loam)	0.5 to 0.6	See reference ⁴

¹Crop injury may occur on soils having a calcareous surface area or a pH of 7.1 or higher.

²Do not use on coarse soils with less than 1% organic matter.

³Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

⁴Refer to the specific clomazone product label instructions.

Restrictions (A342.01 Plus Clomazone):

- Do not rotate to wheat, barley, alfalfa or seed corn in the fall of the year of application or in the spring of the following year as crop injury may occur. Do not rotate any crop not listed on this label for 18 months following application.
- Do not apply when weather conditions favor drift.
- Do not use treated vines for feed or forage.
- Do not apply aerially or through irrigation equipment.

A342.01 Plus Metribuzin + Chlorimuron plus a Grass Herbicide

A tank mix combination of A342.01 plus metribuzin + chlorimuron plus a registered and recommended grass herbicide (metolachlor, alachlor, pendimethalin, ethalfluralin or trifluralin) labeled for this use may be used for control of the following weeds in soybeans:

Weeds Controlled			
Annual Broadleaves			
Bristly Starbur	Galinsoga	Prickly sida/Teaweed	Shepherd's-purse
Carpetweed	Jimsonweed	Purslane	Smartweed
Cocklebur	Knotweed	Ragweed, common	Spurred Anoda
Copperleaf, Hophornbeam	Kochia	Redweed	Velvetleaf
Florida beggarweed	Lambsquarters	Russian thistle	Venice mallow
Florida Pusley	Pigweed	Sesbania	Wild mustard
Annual Grasses			
Barnyardgrass	Crabgrass	Johnsongrass (seedling)	Sandbur
Bluegrass	Crowfootgrass	Junglerice	Sprangletop
Broadleaf signalgrass	Foxtails	Panicum, fall	Stinkgrass
Browntop millet	Goosegrass	Panicum, Texas	

Tank mix combinations which include metolachlor, alachlor or pendimethalin can be applied preemergence broadcast or preplant incorporated broadcast. When ethalfluralin or trifluralin are used in the tank mix, apply preplant incorporated broadcast. Refer to the table below for specified rates of each product to be used in tank mix combinations:

Applications	
A342.01 Plus Metribuzin + Chlorimuron Plus a Grass Herbicide (Broadcast Rates)	
Product	Soil Texture ¹

	Coarse²	Medium	Fine
A342.01 (Lb/A)	0.3	0.3 to 0.5 ³	0.5 to 0.6 ³
Metribuzin + Chlorimuron	See reference ⁴	See reference ⁴	See reference ⁴
Trifluralin	See reference ⁴	See reference ⁴	See reference ⁴
Metolachlor	See reference ⁴	See reference ⁴	See reference ⁴
Pendimethalin	See reference ⁴	See reference ⁴	See reference ⁴
Alachlor	See reference ⁴	See reference ⁴	See reference ⁴
Ethalfuralin	See reference ⁴	See reference ⁴	See reference ⁴

¹Do not use on soils with a pH greater than 7.0.

²Refer to “Soil Texture” paragraph on this label for specific soil classification.

³Use the lower rate of A342.01 in preplant incorporated tank mix as in those situations where soils within a field vary extremely in texture or organic matter content.

⁴Refer to the specific metribuzin + chlorimuron, trifluralin, metolachlor, pendimethalin, alachlor, or ethalfuralin product label instructions.

Important: If weeds escape in fields treated with these tank mix combinations, postemergence application of a registered and recommended herbicide will be needed for control.

Refer to the “Product Information” section of this label for mixing and application directions.

Precautions: For additional precautions, restrictions, limitations and sprayer clean-up information, refer to the appropriate sections of the labels for A342.01 and metribuzin + chlorimuron .

Do not use treated vines for feed or forage.

A342.01 Plus Clomazone Plus a Grass Herbicide

A342.01 may be applied with clomazone and a grass herbicide (trifluralin, alachlor, metolachlor, pendimethalin, or ethalfuralin) for the control of certain broadleaf weeds and grasses in soybeans. This combination will provide improved control of heavy infestations of Velvetleaf, Jimsonweed and Common ragweed. A342.01 and clomazone plus a grass herbicide may be applied preplant incorporated broadcast. Consult the clomazone, trifluralin, alachlor, metolachlor, pendimethalin or ethalfuralin labels for specific directions for use, recommendations, restrictions and additional weeds controlled not specified on this label.

Mixing: Refer to the “Product Information” section in the front of this label.

Application: For specific application information, refer to the “Product Information” section in the front of this label.

Weeds Controlled			
Annual Broadleaves			
Bristly Starbur	Jimsonweed	Purslane	Smartweed
Carpetweed	Knotweed	Ragweed, common	Spotted spurge
Cocklebur	Kochia	Redweed	Spurred anoda
Copperleaf, Hophornbeam	Lambsquarters	Russian thistle	Velvetleaf
Florida beggarweed	Mustard	Sesbania	Venice mallow
Florida Pusley	Pigweed	Shepherd’s-purse	
Galinsoga	Prickly sida/Teaweed	Sicklepod, wild	
Annual Grasses			
Barnyardgrass	Browntop millet	Foxtails	Panicum, fall
Bluegrass	Crabgrass	Goosegrass	Witchgrass
Broadleaf signalgrass	Crowfootgrass	Johnsongrass (seedling)	

A342.01 and clomazone plus trifluralin, alachlor, metolachlor, pendimethalin or ethalfluralin will provide suppression (reduce the competition) of Cocklebur and Sunflower.

Applications			
A342.01 Plus Clomazone Plus a Grass Herbicide (Broadcast Rates)			
Product	Soil Texture¹		
	Coarse	Medium	Fine
A342.01 (Lb/A)	0.3	0.3 to 0.5 ²	0.5 to 0.6 ²
Clomazone	See reference ⁴	See reference ⁴	See reference ⁴
Trifluralin	See reference ⁴	See reference ⁴	See reference ⁴
Metolachlor	See reference ⁴	See reference ⁴	See reference ⁴
Pendimethalin	See reference ⁴	See reference ⁴	See reference ⁴
Alachlor	See reference ⁴	See reference ⁴	See reference ⁴
Ethalfluralin	See reference ⁴	See reference ⁴	See reference ⁴

¹Refer to “Soil Texture” paragraph on this label for specific soil classification. On coarse textured soils **with a calcareous surface area or a pH of 7.5 or higher**, do not use on loamy sand or sandy loam soils with less than 1% organic matter.

²The higher rate of A342.01 may be used for the control of Sicklepod and Hemp Sesbania. Use lower rate of A342.01 in the preplant incorporated tank mix on **soils having a calcareous surface area or a pH of 7.5 or higher** and in those situations where soils within a field vary extremely in texture or organic matter content.

³Use the higher rate specified under moderate to heavy weed infestations.

⁴Refer to the specific clomazone, trifluralin, metolachlor, pendimethalin, alachlor, or ethalfluralin product label instructions.

A342.01 plus Imazaquin plus a Grass Herbicide

A342.01 may be applied with imazaquin and a grass herbicide (trifluralin, alachlor, metolachlor, pendimethalin or ethalfluralin) for the control of certain broadleaf weeds and grasses in soybeans. A342.01 and imazaquin plus trifluralin or ethalfluralin may be applied preplant incorporated broadcast. A342.01 and imazaquin plus alachlor, metolachlor or pendimethalin may be applied preplant incorporated, preemergence broadcast or in a band application.

Consult the imazaquin, trifluralin, alachlor, metolachlor, pendimethalin, or ethalfluralin labels for specific directions for use, recommendations, restrictions and additional weeds controlled not specified on this label.

Mixing: Refer to the “Product Information” section in the front of this label.

Application: For specific application information, refer to the “Product Information” section in the front of this label.

Weeds Controlled: A342.01 plus imazaquin plus trifluralin, alachlor, metolachlor, pendimethalin or ethalfluralin will control the following broadleaf weeds and grasses:

Weeds Controlled			
Annual Broadleaves			
Bristly Starbur	Galinsoga	Prickly sida/Teaweed	Spotted spurge
Buffalobur	Jimsonweed	Purslane	Spurred anoda
Carpetweed	Knotweed	Ragweed, common	Velvetleaf
Cocklebur	Kochia	Russian thistle redweed	Venice mallow
Coffee senna	Lambsquarters	Sesbania	Wild mustard
Copperleaf, Hophornbeam	Morningglory, pitted	Shepherd’s-purse	

Florida beggarweed	Morningglory, Smallflower	Sicklepod	
Florida Pusley	Pigweed	Smartweed	
Annual Grasses			
Barnyardgrass	Browntop millet	Foxtails	Panicum, fall
Bluegrass	Crabgrass	Goosegrass	Witchgrass
Broadleaf signalgrass	Crowfootgrass	Johnsongrass (seedling)	

A342.01 and imazaquin plus trifluralin, alachlor, metolachlor, pendimethalin or ethalfluralin will suppress (reduce the competition of) Ivyleaf and Tall Morningglory and Red rice.

A342.01 Plus Imazaquin Plus a Grass Herbicide (Broadcast Rates)			
Product	Soil Texture¹		
	Coarse	Medium	Fine
A342.01 (Lb/A)	0.3	0.3 to 0.5 ²	0.5 to 0.6 ²
Imazaquin	See reference ⁴	See reference ⁴	See reference ⁴
Trifluralin	See reference ⁴	See reference ⁴	See reference ⁴
Metolachlor	See reference ⁴	See reference ⁴	See reference ⁴
Pendimethalin	See reference ⁴	See reference ⁴	See reference ⁴
Alachlor	See reference ⁴	See reference ⁴	See reference ⁴
Ethalfluralin	See reference ⁴	See reference ⁴	See reference ⁴

¹Refer to "Soil Texture" paragraph on this label for specific soil classification. On coarse textured soils with a calcareous surface area or a pH of 7.5 or higher, do not use on loamy sand or sandy loam soils with less than 1% organic matter.

²Use the higher rate of A342.01 for preemergence tank mix application and for the control of Sicklepod and Hemp Sesbania. Use the lower rate of A342.01 in the preplant incorporated tank mix on soils having a calcareous surface area of a pH of 7.5 or higher, and in those situations where soils within a field vary extremely in texture or organic matter content.

³Use the higher rate specified under moderate to heavy weed infestations.

⁴Refer to the specific imazaquin, trifluralin, metolachlor, pendimethalin, alachlor, or ethalfluralin product label instructions.

A342.01 Plus Imazethapyr and a Grass Herbicide

A342.01 may be tank mixed with imazethapyr herbicide and a registered and recommended grass herbicide (metolachlor, alachlor, pendimethalin, ethalfluralin or trifluralin) for control of certain broadleaf and grass weeds in soybean. Refer to the product labels for imazethapyr, metolachlor, alachlor, pendimethalin, ethalfluralin or trifluralin for additional directions for use, recommendations, restrictions and limitations not included on this label.

Tank mix combinations of A342.01, imazethapyr and metolachlor, alachlor or pendimethalin can be applied broadcast preemergence or preplant incorporated. When the grass herbicide used is ethalfluralin or trifluralin, apply the tank mix broadcast preplant incorporated.

Mixing and Application: Refer to the "Product Information" section of this label for directions on mixing and application of A342.01.

Applications		
A342.01 Plus Imazethapyr and a Grass Herbicide*		
Soil Texture	A342.01 Lb/A	Imazethapyr Oz/A
Coarse	0.3	See reference ¹
Medium	0.4 to 0.5	See reference ¹

Fine	0.5 to 0.6	See reference ¹
------	------------	----------------------------

¹Refer to the specific imazethapyr product label instructions.

*For control of grass weeds, include metolachlor, alachlor, pendimethalin, ethalfluralin or trifluralin at label rates in the tank mix with A342.01 and imazethapyr herbicides.

Restrictions:

- Do not apply this tank mix with aerial or irrigation equipment.
- Do not apply when weather conditions favor drift, or allow sprays to drift onto desirable plants.
- Do not use treated vines for feed or forage.
- Refer to appropriate sections of the imazethapyr Plus herbicide label for restrictions on use area and rotational crops.

A342.01 Plus Linuron Plus (Alachlor or Metolachlor)

A342.01 Plus Linuron Plus (Alachlor or Metolachlor) Tank Mix Application: A342.01 may be applied in combination with linuron and alachlor or metolachlor as a preemergence application for the control of certain weeds in soybeans. Consult the Linuron, alachlor, or metolachlor labels for specific directions for use, recommendations, restrictions and any additional weeds not specified on this label.

Mixing: Refer to the “Product Information” section in the front of this label.

Application: Applications can be made only with ground spray equipment in accordance with specified soil types and dosage rates. For specific application information, refer to the “Product Information” section in the front of this label.

A342.01 Plus Linuron Plus (Alachlor or Metolachlor) Broadcast Rates (0.5 to 3% Organic Matter Only)			
Soil Texture			
Product	Coarse¹ (Sandy, loamy sand, sandy loam)	Medium (Loam, silt loam, silt, sandy clay, sandy clay loam)	Fine (Silty clay, silty clay loam², clay, clay loam)
A342.01 (Lb/A)	0.16 to 0.25	0.25 to 0.3	0.3 to 0.5
Linuron (Lb/A)	See reference ³	See reference ³	See reference ³
Alachlor (Qt/A) or	See reference ³	See reference ³	See reference ³
Metolachlor (Pt/A)	See reference ³	See reference ³	See reference ³

¹Do not use A342.01 plus linuron plus (alachlor or metolachlor) on sand soils with less than 1% organic matter.

²Silty clay loam soils are transitional soils and may be classified as medium textured soils in some regions of the U.S.

³Refer to the specific linuron, alachlor, or metolachlor product label instructions.

Precautions (A342.01 plus Linuron plus (Alachlor or Metolachlor): For additional precautions, restrictions, limitations and sprayer clean-up information, refer to the appropriate sections of this label and the linuron label and the alachlor or metolachlor labels.

For Use In Coarse (Light) Soils in Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia.

A342.01 herbicide may be applied alone or in combination with trifluralin, alachlor or metolachlor for use in coarse-textured, low organic matter soils in the states listed above for the control of certain weeds in

soybeans. Refer to the appropriate section of this label and the trifluralin, alachlor or metolachlor label for specific directions for use, recommendations, restrictions and any additional weeds not specified on this label.

Mixing: Refer to the “Product Information” section in the front of this label.

Application: For specific application information, refer to the “Product Information” section in the front of this label.

A342.01 (Alone) Preemergence Application (Broadcast Rates)		
Soil Texture	Organic Matter	A342.01 Lb/A
Coarse (Light) Soils Sand ¹ , loamy sand, sandy loam	0.5% or Above	0.3 to 0.5 ²

¹Do not use on sand with less than 1% organic matter.

²Use the higher rate under heavy weed pressures and/or on soils higher in organic matter.

A342.01 in Combination with Other Herbicides: A342.01 may be applied in a tank mix combination with trifluralin as a preplant incorporated application or as a preemergence overlay application following a preplant incorporated application of trifluralin. A342.01 may also be used as a preemergence application in combination with alachlor or metolachlor.

For Use in Coarse (Light) Soils 0.5% or Above Organic Matter (Broadcast Rates)			
Soil Texture	Combination Product/A	Plus	A342.01 Lb/A
Coarse (Light) Soils Sand ¹ , loamy sand, sandy loam	Preplant Incorporated trifluralin (Refer to the product label for use rates.)	Plus	0.3 to 0.5 ²
	Preemergence alachlor(Refer to the product label for use rates.) metolachlor(Refer to the product label for use rates.)	Plus	0.3 to 0.5 ²

¹Do not use on sand with less than 1% organic matter.

²Use the higher rate under heavy weed pressures and/or on soils higher in organic matter.

Restrictions:

- Do not use on sand soils with less than 1% organic matter, or on sandy loam or loamy sand soils with less than 0.5% organic matter.
- For additional precautions, restrictions, limitations, and sprayer clean-up information, refer to the appropriate sections of this label and the trifluralin, alachlor, and metolachlor labels.

Burndown Weed Control – Field Corn and Soybeans

A342.01 can be used as part of an herbicide program for burndown of existing vegetation prior to crop emergence in conservation tillage systems. A342.01 may be tank mixed with 2,4-D low volatile ester (LVE), paraquat™, glyphosate for control of emerged weeds prior to field corn or soybean emergence. A342.01 tank mixes with 2,4-DB, fluazifop-P-butyl + fenoxaprop-P-ethyl, [Sethoxydim](#) or [Clethodim](#) may also be used in soybeans for control of emerged weeds prior to crop emergence. A342.01 burndown tank mixes can be applied before planting or prior to crop emergence in the following areas:

Field Corn:

Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, South Dakota, and Wisconsin.

Soybeans:

All areas for all product except fluazifop-P-butyl + fenoxaprop-P-ethyl tank mixes – see fluazifop-P-butyl + fenoxaprop-P-ethyl section of this label for recommended states.

Application: A342.01 may be applied up to 30 days prior to planting or preemergence. Apply only by ground equipment when A342.01 is used for burndown of existing vegetation in conservation tillage systems. A342.01 and tank mix partner burndown rates are listed in the following 3 tables.

A342.01 Burndown Rates Field Corn and Soybeans		
Crops	Application Timing	A342.01 Rate (Oz/A)
Field corn Iowa Kansas Missouri Nebraska South Dakota	Preplant (0 to 30 days)	2.0 to 5.3
	Preemergence	
Field corn Illinois Indiana Kentucky Michigan Minnesota Ohio Wisconsin	Preplant (10 to 30 days)	2.0 to 5.3
	Preplant (0 to 9 days)	2.0 to 4.0
	Preemergence	
Soybeans	Preplant (0 to 30 days)	2.0 to 5.3
	Preemergence	

Restrictions (Field Corn):

- Do not apply on coarse textured soils with less than 1.5% organic matter.
- Do not apply more than 4.0 ounces of A342.01 per acre on soils with less than 2% organic matter.
- Do not apply on soils having pH 7.0 or greater.
- Do not apply more than 5.3 ounces of A342.01 (0.25 pound active ingredient) per acre per growing season.
- Plant corn seed a minimum of 1-1/2 inches deep.
- A342.01 may only be used in hybrid seed corn production fields if both inbred parents are known to be tolerant to A342.01.

Restrictions (Soybeans):

- Apply only 2,4-D ethylhexyl ester (2,4-D EHE) formulations which are registered for preplant or burndown use in soybeans.
- Do not apply tank mixtures containing 2,4-D EHE if wind is blowing toward desired susceptible plants (i.e., cotton, tobacco, tomato, etc.) or when wind speeds exceed 6 mph.

Restrictions: Do not apply these treatments after crop emergence. Observe all precautions and limitations on the labeling of all products used in tank mixtures. Refer to the “Product Information” section of this label for additional information, precautions, and limitations.

Feeding Restrictions: Pre-harvest Interval (PHI): Corn treated with A342.01 may be harvested for silage or grain 60 days after treatment. Soybean vines or hay treated with A342.01 may be grazed or fed to livestock 40 days after application. Do not feed hay, forage, fodder or graze 2,4-D, clethodim, or fluazifop-P-butyl + fenoxaprop-P-ethyl treated vegetation. Follow the most restrictive preharvest interval of all products used in a tank mixture.

A342.01 Plus Tank Partner Burndown Rates – Field Corn or Soybeans		
Product	Rate	Directions and Remarks
A342.01 + 2,4-D EHE	2.0 to 5.3 oz/A* + See reference ¹	In soybeans, apply at least 7 days preplant when using 2,4-D EHE at 0.25 to 0.5 lb AI/A and at least 30 days preplant with rates greater than 0.5 lb AI/A. Include crop oil concentrate (COC) at the rate of 1.0 gal/100 gal of spray solution (1% v/v). In corn, apply at least 7 days preplant or at least 3 days after planting but before corn emergence.
A342.01 + Paraquat	2.0 to 5.3 oz/A* + See reference ¹	Must be applied prior to crop emergence. See paraquat label for amount to use in relation to weed height. Apply in 20.0 to 60.0 gal of water/A. Include either nonionic surfactant at 1.0 qt/100 gal (0.25% v/v) or crop oil concentrate at 1.0 gal/100 gal (1% v/v) of spray solution.
A342.01 + Paraquat + 2,4-D EHE	2.0 to 5.3 oz/A* + See reference ¹ + See reference ¹	For this tank mix follow the Directions and Remarks Sections above for A342.01 + 2,4-D EHE and A342.01 + paraquat, paying special attention to crop planting restrictions with 2,4-D EHE. Include either nonionic surfactant or crop oil concentrate in this tank mix.
A342.01 + glyphosate	2.0 to 5.3 oz/A* + See reference ¹	Must be applied prior to crop emergence. Use the higher rates as weeds approach the maximum weed heights listed in the “Weeds Controlled” section below. Apply in 10.0 to 20.0 gal of water/A. With glyphosate, include nonionic surfactant at 2.0 qt/100 gal (0.5% v/v) and ammonium sulfate (spray grade) at 17.0 lb/100 gal of spray solution. With glyphosate, include ammonium sulfate (spray grade) at 17.0 lb/100 gal of spray solution. Any glyphosate formulation registered and labeled for use in field corn or soybeans may be tank mixed with A342.01.
A342.01 + glyphosate + 2,4-D EHE	2.0 to 5.3 oz/A* + See reference ¹ See reference ¹	For this tank mix follow the Directions and Remarks Sections above for A342.01 + 2,4-D EHE and A342.01 + glyphosate, paying special attention to planting restrictions with 2,4-D EHE. Use the adjuvant recommendations under the A342.01 + glyphosate tank mix. Do not use crop oil concentrate.

*If applied to field corn grown in Illinois, Indiana, Kentucky, Michigan, Minnesota, Ohio and Wisconsin, refer to Table 1 for correct A342.01 rate based on application timing.

¹Refer to the specific 2,4-D EHE, paraquat, or glyphosate product label instructions.

A342.01 Plus Tank Partner Burndown Rates – Soybeans Only		
Product	Rate	Directions and Remarks
A342.01 + 2,4-DB	2.0 to 5.3 oz/A + See reference ¹	Apply preplant or before soybean emergence. Include nonionic surfactant at 2.0 qt/100 gal (0.5% v/v) of spray solution.
A342.01 +	2.0 to 5.3 oz/A +	For use only in DE, IL, IN, IA, KS, KY, MD, MI, MN, MO, NE, ND, OH, PA, SD, VA, WV and WI.

Fluazifop-P-butyl + fenoxaprop-P-ethyl + 2,4-D EHE	See reference ¹ + See reference ¹	For this tank mix follow the planting restrictions under the Directions and Remarks Section above for A342.01 + 2,4-D EHE. fluazifop-P-butyl + fenoxaprop-P-ethyl rates of 4.0, 6.0 and 8.0 fl oz will control certain grasses up to 2, 4 and 6 inches in height, respectively. Include either crop oil concentrate at 1.0 gal/100 gal (1.0% v/v) or nonionic surfactant at 1.0 to 2.0 qt/100 gal (0.25 to 0.5% v/v) of spray solution. Refer to the fluazifop-P-butyl + fenoxaprop-P-ethyl label for additional information.
A342.01 + Sethoxydim + 2,4-D EHE	2.0 to 5.3 oz/A + See reference ¹ + See reference ¹	For this tank mix follow the planting restrictions under the Directions and Remarks Section above for A342.01 + 2,4-D EHE. The 8.0 and 12.0 oz rate of sethoxydim will control certain grasses up to 2 and 3 inches in ht, respectively. Include either crop oil concentrate at the rate of 1.0 gal/100 gal of spray solution (1% v/v) 1.0 pt/A. Refer to the sethoxydim label for additional information.
A342.01 + Clethodim + 2,4-D EHE	2.0 to 5.3 oz/A + See reference ¹ or See reference ¹	For this tank mix follow the planting restrictions under the Directions and Remarks Section above for A342.01 + 2,4-D EHE. The 3.0 and 4.0 fl oz rates of clethodim will control certain grasses up to 3 and 4 inches in height, respectively. Include crop oil concentrate at the rate of 1.0 qt/A and 28% UAN (urea ammonium nitrate) at a rate of 1.0 to 2.0 qt/A. Refer to the clethodim label for additional information.

¹Refer to the specific 2,4-DB, 2,4-D EHE, fluazifop-P-butyl + fenoxaprop-P-ethyl, sethoxydim, or clethodim product label instructions.

WEEDS CONTROLLED. A342.01 in tank-mixtures with the above herbicides will provide burndown control of the weeds listed on the table below.

Weeds Controlled By Burndown Rates of A342.01 A342.01 plus									
Weeds Controlled	2,4-D EHE	Sethoxydim + 2,4-D LVE	Clethodim + 2,4-D LVE	Fluazifop-P-butyl + fenoxaprop-P-ethyl + 2,4-D LVE	glyphosate	glyphosate + 2,4-D EHE	Paraquat	Paraquat + 2,4-D EHE	2,4-DB
Annual Grasses	Maximum Burndown Height (Inches)								
Barley	Does not control	-	-	-	8	4 to 6	Does not control		
Barnyardgrass		2 to 3	3 to 4	-	6	4 to 6			
Crabgrass spp.		2 to 3	-	-	8	4 to 6			
Foxtail spp.		2 to 3	3 to 4	2 to 6	8	4 to 6			

Johnsongrass, seedling	these species	2 to 3	-	-	8	4 to 6	these species	
Panicum, fall		2 to 3	3	2 to 6	6	4 to 6		
Sandbur, field		-	-	-	8	4 to 6		
Shattercane		2 to 3	-	-	8	4 to 6		
Wheat, volunteer		-	-	-	6	4 to 6		
Witchgrass		2 to 3	-	-	6	4 to 6		
Broadleaves		Maximum Burndown Height (Inches)						
Buffalobur		-		6	6	4 to 6	4 to 6	-
Chickweed, common		6		6	8	4 to 6	4 to 6	2
Cocklebur, common		6		6	8	4 to 6	4 to 6	6
Dandelion, common		6 ^{dia} ^a		2 dia ^b	6 dia ^a	4 dia ^d	6 dia ^a	2 dia
Henbit		4		4	4	4 to 6	4 to 6	-
Horseweed/marestail		6 ^{ac}		4 ^b	6	3	6 ^a	2 ^c
Jimsonweed		6		6	6	4 to 6	4 to 6	2
Kochia*		4 ^{ac}		4	4	4	4	-
Ladysthumb		6		6	8	4 to 6	4 to 6	3
Lambsquarters, common		6		6	8	4 to 6	4 to 6	2
Lettuce, prickly		6		4	6	4 to 6	4 to 6	2
Mallow, Venice		6		6	6	4 to 6	4 to 6	-
Morningglory, spp.		6		2	4	2	4	4
Mustard spp.		6		6	8	4 to 6	4 to 6	2
Pennycress, field		6		6	6	4 to 6	4 to 6	2
Pigweed, spp. (annual)		6		6	8	4 to 6	4 to 6	3
Ragweed, common		6		6 ^b	8	4 to 6	4 to 6	2
Ragweed, giant		6 ^{ac}		4 ^b	6	4	6	2
Shepherd's-purse		6		6	6	4 to 6	4 to 6	-
Sida, prickly		6		4	4	4	4	1
Smartweed, Pennsylvania				6	8	4 to 6	4 to 6	3
Sunflower, common		6		6	6	4 to 6	4 to 6	4
Thistle, Russian		4 ^{ac}		2 to 4 ^{bc}	6	4	4 to 6	3 ^c
Velvetleaf		6		6	8	4 to 6	4 to 6	3
Waterhemp spp.		6		6	8	4 to 6	4 to 6	3

^aRefer to the 2,4-d EHE product labels for use rates.

^b Refer to the glyphosate product labels for use rates. ^cUse A342.01 at 4.0 ounces per acre for optimum control.

^dSuppression only.

*Does not control triazine resistant biotypes.

RESIDUAL WEED CONTROL

A342.01 burndown programs can be used as part of a full season weed control program in both field corn and soybeans when, 1) applied as a tank mixture with residual herbicides, or 2) followed with a postemergence weed control program, which is registered for use on that crop.

For residual control, A342.01 burndown programs may include tank mixes with the following herbicides or combination of herbicides:

Field Corn			
Acetochlor	Atrazine	Dimethenamid-P	Metolachlor
Acetochlor+Atrazine	Atrazine+S-metolachlor	Dimethenamid+atrazine	Pendimethalin
Alachlor	Dicamba	Imazethapyr ^a	Simazine
Alachlor+Atrazine	Dicamba+ atrazine	Imazethapyr+Pendimethalin	S-Metolachlor
		Linuron	S-Metolachlor+Atrazine

^aUse only imazethapyr resistant/tolerant corn hybrids.

Soybeans			
Alachlor Metribuzin+ chlorimuron Clomazone	Linuron Metolachlor	Imazethapyr Imazethapyr+Pendimethalin Imazaquin Imazaquin+ Pendimethalin	Metribuzin ^b Pendimethalin

^bA342.01 used (alone and in tank mixes) on soybeans at higher labeled rates than those listed for burndown weed control will also provide residual control of those weeds listed in the “Weeds Controlled by A342.01 Tank Mix Combinations” section of the A342.01 label.

Refer to the individual product labels for additional information, precautions, and limitations.

Southern And Southeastern States Only Postemergence Directed Spray Applications

A342.01 can be applied in postemergence directed sprays to soybeans for control of certain weeds which escape preplant or preemergence herbicide applications and for control of additional flushes of weeds that may occur after soybeans have emerged. Postemergence directed sprays of A342.01 can be applied to soybeans in addition to a preemergence or preplant application of A342.01 herbicide according to label directions.

Weeds Controlled: A342.01, applied postemergence to soybeans as a directed spray according to directions on this label, will control the following at rates shown (broadcast basis) when grasses and common ragweed are less than 1 inch tall and other broadleaves are less than 3 inches tall:

0.3 Pound per Acre	
Carpetweed (<i>Mollugo verticillata</i>)	Mexicanweed (<i>Caperonia castaniifolia</i>)
Cocklebur (<i>Xanthium pensylvanicum</i>)	Pigweeds (<i>Amaranthus</i> spp.)
Crabgrass (<i>Digitaria</i> spp.)	Purslane (<i>Portulaca oleracea</i>)
Dayflower (<i>Commelina</i> spp.)	Sicklepod (<i>Cassia obtusifolia</i>)
Florida beggarweed (<i>Desmodium tortuosum</i>)	Velvetleaf (<i>Abutilon theophrasti</i>)
0.3 to 0.6 Pound per Acre	
Prickly sida/Teaweed (<i>Sida spinosa</i>)	Sesbania (<i>Sesbania</i> spp.)
0.6 Pound per Acre	
Ragweed, common (<i>Ambrosia artemisiifolia</i>)	

At the rate of 0.6 pound per acre Morningglory species (*Ipomoea* spp.), Horsenettle (*Solanum* spp.), Florida Pusley (*Richardia scabra*), Spotted spurge (*Euphorbia maculate*) and Wild poinsettia (*Euphorbia heterophylla*) are suppressed when A342.01 is applied before these weeds are 3 inches tall. The 0.6 pound per acre rate will suppress broadleaf Signalgrass (*Brachiaria platyphylla*) up to 1 inch tall.

A342.01 Postemergence Directed Spray Applications	
Crop	A342.01 Lb/A
Soybeans (AL, AR, FL, GA, KY, LA, MS, MO, NC, OK, SC, TN and TX)	0.3 to 0.6 (broadcast basis)

Apply proper dosage using 10.0 to 40.0 gallons of water per acre as a directed spray in a 6- to 8-inch band on each side of the row after soybeans are 8 inches tall and before broadleaf weeds are 3 inches tall and before grasses and Common ragweed are 1 inch tall. For best results, the spray must cover weed foliage with minimum or no contact with soybean foliage. Add a nonionic surfactant such as Activator 90 or Liberate® to the spray mixture to obtain better wetting of weed leaf surfaces. To determine the correct dosage

of A342.01 for a band application see “Band Application” under the “Product Information” section in the front of this label.

If necessary, a second postemergence directed spray application can be made after 7 days.

Do not feed or graze green soybean vines. Pre-harvest Interval (PHI): Do not harvest soybeans or use dry soybean vines for feed or forage within 70 days of last application.

Restrictions:

- Do not feed or graze green soybean vines. Pre-harvest Interval (PHI): Do not harvest soybeans or use dry soybean vines for feed or forage within 70 days of last application.

Precautions (Directed Postemergence):

- Do not apply directly to soybeans or serious crop injury will occur.
- Do not allow spray to contact more than the lower ¼ to 1/3 of soybean plants. Soybean leaves contacted by the spray will be killed.
- Do not apply A342.01 postemergence to sensitive soybean varieties.
- See “Precautions” in the front of this label.
- To avoid injury to other crops or desirable plants from spray drift, sprayer pressure must not exceed 30 psi and the sprayer must be fitted with nozzles no smaller than 8002 T-Jet® (or equivalent).
- Do not apply under weather conditions which favor drift.

POTATOES

A342.01 may be used in ground, aircraft or specified chemigation equipment as a preemergence and/or postemergence application to potatoes. Early maturing smooth skinned white and all red skinned varieties may be injured with postemergence applications. The varieties Atlantic, Bellchip, Centennial, Chipbelle and Shepody are sensitive to A342.01. Avoid postemergence applications on these varieties. Preemergence applications on these varieties may cause crop injury under adverse weather conditions, on coarse soils, under high soil pH, with higher rates per acre and with mechanical incorporation.

Ground Application: A342.01 may be used with ground spray equipment applied as a preemergence and/or postemergence application for control of the listed grass and broadleaf weeds in potatoes. Apply as a uniform broadcast at 20.0 or more gallons per acre.

Aerial Application: A342.01 may be applied in aerial spray equipment as a preemergence and/or postemergence application at 5.0 or more gallons per acre.

Chemigation: A342.01 may be applied preemergence and/or early postemergence to potatoes using center pivot, solid set and lateral roll systems. Apply specified dosage in ¼ to ¾ inch of water per acre (1/4 to ½ inch on sandy soil) as a continuous injection in self-propelled systems or apply in the last 15 to 30 minutes of the set in other systems. Be sure all the A342.01 pounds per acre has been flushed from the lines before shutting down the system.

Weeds Controlled

A342.01 applied to potatoes according to directions, will provide economic control of the following weeds. For optimum control, applications should be made before weeds are 1 inch tall. (See NOTE).

<p>Broadleaves Carpetweed, common¹ Cocklebur, common^{1,2} Jimsonweed¹ Kochia³ Lambsquarters, common^{1,2}</p>	<p>Mustard, Indian¹ Mustard, tansy¹ Mustard, tumble¹ Mustard, wild¹ Pennycress, field^{1,2}</p>	<p>Pigweed, redroot^{1,2} Pigweed, smooth^{1,2} Ragweed, common^{1,2} Shepherd's-purse¹ Sicklepod¹</p>	<p>Smartweed, Pennsylvania^{1,2} Sunflower, common³ Thistle, Russian²</p>
---	---	--	---

Grasses Barnyardgrass ³ Crabgrass, large ¹ Crabgrass, smooth ¹	Foxtail, giant ¹ Foxtail, green ¹ Foxtail, yellow ¹	Johnsongrass, seedling ¹ Panicum, fall ¹ Signalgrass, broadleaf ¹
---	--	--

¹Weeds controlled with preemergence applications.

²Weeds controlled with postemergence applications.

³Weeds requiring 2 applications for control.

Hard To Control Weeds

Although A342.01 may not provide commercially acceptable control in every instance, it will suppress growth of the following weeds and reduce their competition with potato plants.

Barnyardgrass Grasses	Kochia	Nightshade, hairy Nutsedge, yellow	Purslane, common Sunflower, common
--------------------------	--------	---------------------------------------	---------------------------------------

Note: Where triazine-resistant weeds are present, A342.01 alone may not provide adequate control.

Broadcast Applications

Crops	A342.01 (Lb/A)
Potatoes	0.3 to 1.3
Preemergence: Apply specified dosage as a broadcast spray. Do not mechanically incorporate into soil. Use the 0.3 to 0.6 pound per acre rate for control of Wild mustard (<i>Brassica</i> spp.) only. On sand soils or sensitive varieties, do not exceed 0.6 pound per acre.	
Potatoes	0.3 to 0.6
(Except early maturing smooth skinned, red skinned, and other specified varieties.)	

Postemergence: Apply specified dosage as a broadcast spray over the tops of potato plants [Refer to Special Precautions (Potatoes)]. Use rates of 0.3 to 0.6 pound per acre for control of Redroot pigweed and Common lambsquarters only. Apply the 0.6 pound per acre rate for control of other weeds listed on this label.

Split Applications: This product may be applied once preemergence and once postemergence as directed above [Refer to Special Precautions (Potatoes)]. Do not exceed 1.3 pounds total per acre per season.

Idaho, Oregon And Washington Only: 2 postemergence applications can be made as broadcast sprays over the tops of potato plants if A342.01 is applied preemergence. Use 0.3 to 0.6 pound per acre for control of Redroot pigweed and Lambsquarters only. On coarse (sandy) soils with low organic matter do not exceed 0.5 pound per acre per application. On medium and heavy soils only, use 0.6 pound per acre per application for control of other weeds listed on this label and for suppression of Hairy nightshade. Make the first application early in the season while weeds are still small. Allow at least 14 days before the second application. Do not apply after June 30 if treated land is to be planted to crops other than potatoes.

Tank Mixes: A342.01 may be tank mixed with the following herbicides: metolachlor, Eptam®, pendimethalin and Matrix®. In addition, three-way tank mix combinations may be used for A342.01 plus metolachlor, Eptam or pendimethalin plus Matrix when applied preemergence. Refer to each product's label for precautionary statements, restrictions, application information and weeds controlled.

Metolachlor: A342.01 may be applied in a tank mix combination with metolachlor as a preemergence broadcast application. Apply A342.01 at 0.5 to 1.3 pounds and metolachlor according to the respective labels for use of each product alone on potatoes.

Eptam: A342.01 may be tank mixed with Eptam at rates and uses permitted on each product's label.

Pendimethalin: A342.01 may be applied in tank mix combination with pendimethalin as a preemergence or early postemergence broadcast application. As a preemergence mix, apply A342.01 at 0.6 to 1.3 pounds

and pendimethalin according to the respective label. As an early postemergence spray, apply A342.01 at 0.3 to 0.6 pound and pendimethalin according to the respective label before the crop is in the 6-inch growth stage.

Matrix (except the following counties in Colorado): Alamosa, Conejos, Costilla, Rio Grande and Saguache: A342.01 may be applied in tank mix combination with Matrix as a preemergence and/or early postemergence application for improved control on weeds such as Russian thistle, Kochia and Common lambsquarters. As a preemergence mix, apply A342.01 at 0.3 to 0.75 pound and Matrix according to the respective label. As an early postemergence spray, apply A342.01 at 0.3 to 0.6 pound and Matrix according to the respective label. Use a nonionic surfactant at a rate of 0.125% v/v (1.0 pint per 100 gallons of water). Apply before the crop exceeds 14 inches in height. Make postemergence applications of Matrix treatments prior to June 30.

Restrictions (Potatoes):

- Do not use A342.01 on potatoes in Kern County, California.
- Do not apply more than a total of 1.3 pounds A342.01 per acre in a single crop season regardless of the method of application.
- Do not make postemergence applications prior to rainfall or irrigation on recently cultivated potatoes, nor within 3 days after periods of cool, wet cloudy weather or injury may occur.
- Pre-harvest Interval (PHI): Do not apply A342.01 within 60 days of harvest.
- Do not rotate any crop not listed on this label for 18 months following application.
- Do not use air blast sprayers.
- Do not apply to sweet potatoes or yams.
- Do not plant sensitive crops such as onions, lettuce, cole crops and cucurbits during the next growing season following A342.01 application.

Postemergence applications may cause some chlorosis or minor necrosis. These symptoms may be more severe if seed-piece decay is occurring or if growing conditions favor crop stress.

Postemergence applications may be made only on russet or white skinned varieties that are not early maturing.

Potato varieties may vary in their response to herbicide applications. When using A342.01 for the first time on a particular variety, always determine crop tolerance before using on a field scale.

Certain cereal varieties are sensitive to A342.01 (see cereal section of this label for sensitive varieties) and should not be planted during the next growing season unless the following cultural practices occur:

1. Potato vines left in rows as a result of harvest must be uniformly distributed over the soil surface prior to plowing, and
2. Plow with a moldboard plow to a depth sufficient to mix the upper 8 inches of soil.

ALFALFA AND SAINFOIN

A342.01 is labeled for use in alfalfa and sainfoin in the following areas:

1. Alfalfa and sainfoin (including mixed stands with grasses) (all areas except California).
2. Alfalfa and sainfoin (including mixed stands with grasses) (California only).
3. Alfalfa – tank mix combination with paraquat (Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming, and the following California counties: Del Norte, Lassen, Modoc, Nevada, Plumas, Shasta, Sierra, and Siskiyou).

4. Alfalfa – post dormant application of A342.01 impregnated on dry fertilizer only (Connecticut, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Nebraska, New Mexico, New York, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Texas and Wisconsin).
5. Alfalfa – Non-Dormant, Non-Winter Hardy varieties (Arizona only).

A342.01 may be used in aerial or ground spray equipment as a broadcast surface application to established crops of alfalfa and sainfoin for the control of certain grass and broadleaf weeds.

Application: Refer to “Product Information” in the front of this label for detailed information on the application of A342.01. For information on applying A342.01 in fluid or on dry fertilizer refer to the “Application of A342.01 in Fluid Fertilizers” or “Commercial Impregnation and Application of A342.01 on Dry Bulk Fertilizer” under the “Product Information” section of this label.

Restrictions (Alfalfa and Sainfoin)

- Use A342.01 only on established alfalfa and sainfoin.
- Do not apply A342.01 after growth begins in the spring or before growth ceases in the fall, except as specified on this label.
- Pre-harvest Interval (PHI): Do not graze or harvest within 28 days after application.

For best weed control, apply A342.01 when weeds are less than 2 inches tall or before weed foliage is 2 inches in diameter. Reduced weed control may occur when extended dry conditions follow application of A342.01.

Crop injury may occur when:

1. Crop is under stress conditions such as diseases, insect infestations, poorly drained soils, drought or winter injury at time of application;
2. Crop is treated within 12 months after seeding;
3. There is excessive irrigation or rainfall immediately after application. Do not apply more than 0.5 inch of water in the first irrigation after A342.01 is applied.

**Alfalfa and Sainfoin
(All Areas Except California)**

Broadcast Applications

Crop	A342.01 Lb/A
Alfalfa and Sainfoin (Except California)	0.3 to 1.3

Select the proper dosage according to weeds known to be present in field to be treated. On loamy sand soils in Oregon and Washington, do not apply more than 0.6 pound of A342.01 per acre.

For Use On Mixed Stands Of Alfalfa And Grasses

Rates of 0.6 to 1.0 pound of A342.01 per acre will provide partial reduction of forage grass stands. These rates may be used to reduce forage grass stands to prevent crowding out of alfalfa. Higher rates will severely reduce forage grass stands.

Do not use A342.01 on sand soils. In areas West of the Rocky Mountains, avoid using A342.01 on soils with calcareous surface area, high levels of lime or sodium, or a pH greater than 8.2.

Weeds Controlled (Except California)	
0.3 to 0.5 Lb A342.01/A	
Chickweed, common (<i>Stellaria media</i>)	
0.5 to 0.6 Lb A342.01/A	
Cheat (<i>Bromus secalinus</i>) Deadnettle, purple (<i>Lamium purpureum</i>) Downy brome (<i>Bromus tectorum</i>) Japanese brome (<i>Bromus japonicus</i>)	Pennycress (<i>Thlaspi arvense</i>) Rescuegrass (<i>Bromus catharticus</i>) Shepherd’s-purse (<i>Capsella bursa pastoris</i>)

0.6 to 1.3 Lb A342.01/A	
Broadleaves Fleabane, rough (<i>Erigeron strigosus</i>) Flixweed (<i>descurainia sophia</i>) Henbit (<i>Lamium amplexicaule</i>) Kochia (<i>Kochia scoparia</i>) Lambsquarters, common (<i>Chenopodium album</i>) Marestail (Horseweed) (<i>Hippuris vulgaris</i>) Meadow salsify (<i>Tragopogon pratensis</i>) Mustard, blue (<i>Chorispora tenella</i>)	Mustard, Jim Hill (tumble) (<i>Sisymbrium altissimum</i>) Mustard, tansy (<i>Descurainia pinnata</i>) Pepperweed (<i>Lepidium virginicum</i>) Pigweed, redroot (<i>Amaranthus retroflexus</i>) Prickly lettuce (<i>Lactuca serriola</i>) White cockle (<i>Melandrium album</i>) Wild buckwheat (<i>Polygonum convolvulus</i>) Yellow rocket (<i>Barbarea vulgaris</i>)
Grasses Foxtail, green (<i>Setaria viridis</i>) Little barley (<i>Hordeum pusillum</i>)	Smooth brome (<i>Bromus inermis</i>) Wild oats (<i>Avena fatua</i>)
1.3 Lb A342.01/A	
Broadleaves Chickweed, mousear (<i>Cerastium vulgatum</i>)	Dandelion (<i>Taraxcum officinale</i>) Ragweed, common (<i>Ambrosia artemisiifolia</i>)
Grasses Barnyardgrass (<i>Echinochloa crus-galli</i>) Bluegrass (<i>Poa annua</i>)	Foxtail barley (<i>Hordeum jubatum</i>)

Weeds Partially Controlled: At the rate of 1.3 pound per acre A342.01 may be used to reduce the competition from curly dock (*Rumex crispus*).

At 0.6 to 1.3 pound per acre, A342.01 may be used to reduce the competition of German moss or Knawel (*Scleanthus annus*).

**Alfalfa and Sainfoin (California Only)
(Including Mixed Stands With Grasses)**

A342.01 may be used in aerial or ground spray equipment as a broadcast surface application to dormant established crops of alfalfa and sainfoin.

Application: A342.01 may be used in aerial or ground spray equipment as a broadcast surface application to dormant established crops of alfalfa and sainfoin for control of certain grass and broadleaf weeds. Do not apply A342.01 after growth begins in the spring or before growth ceases in the fall. Do not apply to either alfalfa or sainfoin during the first growing season after seeding.

For information on applying A342.01 in fluid fertilizer solutions to alfalfa, refer to the appropriate section of this label.

For information on Commercial impregnation and application of A342.01 on dry bulk fertilizer, refer to the appropriate section of this label.

Weeds Controlled	
0.5 to 0.6 Lb A342.01/A	
Cheatgrass (downy brome) (<i>Bromus secalinus</i>)	
0.6 to 1.3 Lb A342.01/A	
Broadleaves Chickweed, Common (<i>Stellara media</i>) Flixweed (<i>Descurainia sophia</i>) Henbit (<i>Lamium amplexicaule</i>) Kochia (<i>Kochia scoparia</i>) Meadow salsify (<i>Tragopogon pratensis</i>) Mustard, blue (<i>Chorispora tenella</i>)	Mustard, tansy (<i>Descurainia pinnata</i>) Pepperweed (<i>Lepidium virginicum</i>) Shepherd's-purse (<i>Capsella bursa-pastoris</i>) White cockle (<i>Melandrium album</i>) Wild buckwheat (<i>Polygonum convolvulus</i>) Yellow rocket (<i>Barbarea vulgaris</i>)
Grasses	

Smooth brome (<i>Stellaria media</i>)	Wild oats (<i>Avena fatua</i>)
1.3 Lb A342.01/A	
Broadleaves Dandelion (<i>Taraxacum officinale</i>)	
Grasses Barnyardgrass (<i>Echinochloa crus-galli</i>) Bluegrass (<i>Poa annua</i>)	Foxtail barley (<i>Hordeum jubatum</i>)

Broadcast Applications

Crop	A342.01 Lb/A
Alfalfa and Sainfoin (California Only)	0.5 to 1.3
<p>Select the proper dosage according to weeds known to be present in the field to be treated. Apply specified dosage in 20.0 to 40.0 gallons of water per acre with ground spray equipment or 3.0 to 10.0 gallons of water per acre with aerial spray equipment fitted with nozzles suitable for broadcast applications of herbicides. Treat only dormant established crops of alfalfa and sainfoin. Injury may occur to alfalfa if A342.01 is applied earlier than 12 months after seeding. Do not apply after spring growth begins or before growth ceases in the fall. Pre-harvest Interval (PHI): Do not graze or harvest within 28 days after application.</p> <p>At the 1.3 pounds per acre rate, A342.01 may be used for suppression of Curly dock.</p>	

For Use on Mixed Stands of Alfalfa and Grasses: Rates of 0.6 to 1.3 pound of A342.01 per acre will provide partial reduction of forage grass stands. These rates may be used to reduce forage grass stands to prevent crowding out of alfalfa. Higher rates will severely reduce forage grass stands.

ALFALFA

A342.01 plus Paraquat Tank Mix

Colorado, Idaho, Montana, Nevada, Oregon, Utah, Washington, Wyoming and the following California counties: Del Norte, Lassen, Modoc, Nevada, Plumas, Shasta, Sierra, and Siskiyou.

Application: A342.01 plus paraquat tank mix application may be used, during the dormant season, in aerial or ground spray equipment as a broadcast surface application to established (at least 1 year old) alfalfa for the control of certain grass and broadleaf weeds. Do not apply A342.01/paraquat tank mix to regrowth (after grazing or cutting) that is more than 2 inches tall. Apply once per season. Do not apply following cuttings during growing season. Use a minimum of 10.0 gallons of water per acre with aerial spray equipment and a minimum of 20.0 gallons of water per acre with ground spray equipment. Add a non-ionic spreader at label rates to the spray solution.

Restrictions (Alfalfa):

- Do not apply A342.01/paraquat tank mix to regrowth (after grazing or cutting) that is more than 2 inches tall.
- Apply once per season.
- Do not apply following cuttings during growing season.

Weeds Controlled: A342.01 plus paraquat tank mix application will control established weeds. Paraquat controls weeds by contact activity. Refer to the paraquat label for specific use rates.

0.3 to 0.5 Lb of A342.01/A		
Common Chickweed		
0.5 to 1.0 Lb of A342.01/A		
Bluegrass Cheat Downy brome	Field pennycress Henbit Japanese brome	Rescuegrass Shepherd's-purse
Use A342.01 at 0.6 to 1.0 Lb/A for control of the following weeds:		

Blue mustard Common lambsquarters Flixweed Green foxtail Groundsel Jim Jill mustard Kochia Little barley	Marestail (Horseweed) Meadow salsify Pepperweed Prickly lettuce Redroot pigweed Rough fleabane Ryegrass	Smooth brome Sow thistle Tansy mustard White cockle Wild oats Wild buckwheat Yellow rocket
---	---	--

Applications	
Dosage/A A342.01 0.3 to 1.0 lb Plus Paraquat (refer to the product label for rates.)	Apply specified dosages of A342.01 and paraquat in at least 10.0 gal of water/A with aerial equipment or at least 20.0 gal of water/A with ground equipment. Do not apply this tank mix to alfalfa growth if more than 2 inches tall. For best weed control, apply when broadleaf weeds and grasses are 1 to 6 inches tall and are actively growing. Care should be taken to avoid overlaps. Do not apply more than 0.6 lb of A342.01 on loamy sand soils. Reduced weed control may occur when extended dry conditions follow application of A342.01. Crop injury may occur if alfalfa is under stress conditions such as diseases, insect infestations, drought or winter injury or if A342.01 is applied to alfalfa earlier than 12 months after seeding.

For Use on Mixed Stands of Alfalfa and Grasses: Rates of 0.6 to 1.0 pound of A342.01 per acre will provide partial reduction of forage grass stands. These rates may be used to reduce forage grass stands to prevent crowding out of alfalfa.

Pre-harvest Interval (PHI): Do not graze or harvest within 42 days after application.

In areas west of the Rockies, do not use A342.01 on soils with calcareous surface, soils with high levels of lime or sodium and with a pH greater than 8.2.

Do not use on sand soil.

Refer to the paraquat label for additional directions, weed species controlled and precautions.

Post-Dormant Application of A342.01 Impregnated on Dry Fertilizer Only

A342.01 may be applied after dormancy has broken, but prior to 3 inches of new alfalfa shoot growth, only when impregnated on dry fertilizer in Connecticut, Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Nebraska, New Mexico, New York, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee, Texas and Wisconsin. Apply at rates of 1.0 to 1.3 pound per acre as directed on this label for application during dormancy. Apply only when alfalfa foliage is dry or crop injury may occur. When using this application method, do not harvest or graze treated alfalfa for 60 days after application.

Alfalfa

Non-Dormant, Non-Winter Hardy Varieties (Arizona Only)

A342.01 may be used as a broadcast surface application to established crops on non-dormant alfalfa varieties for preemergence and postemergence control of certain winter annual weeds following either a fall or winter sheep grazing/green-chop harvest.

Weeds Controlled:

Field Pepperweed Lambsquarters Little mallow (cheeseweed) Littleseed canarygrass London rocket (mustard)	Mouse barley Nettleleaf goosefoot Shepherd's-purse Silversheath knotweed Spiny sowthistle
--	---

Prickly lettuce	
-----------------	--

Applications

Crop	A342.01 Lb/A
Alfalfa Non-dormant, Non-winter Hardy Varieties	0.5 to 0.6 lb/A

Apply specified dosage by aerial or ground spray equipment in 7.0 to 40.0 gallons of water per acre. Treat established alfalfa stubble after fall or winter sheep grazing or green-chop harvest and prior to the time regrowth is 2 inches tall. Alfalfa foliage present at time of application can exhibit yellowing. Injury may occur to alfalfa in areas of high salt concentration where the crop is stunted and/or has a poorly developed root system, or if alfalfa is under stressed growing conditions such as diseases, insect infestations, or drought. For most effective postemergence weed control, treatment should be made before weeds are 2 inches tall or before leaf rosettes are 2 inches wide. For maximum control, rainfall (0.25 inches or more) or irrigation is necessary within 30 days of treatment, however, do not flood irrigate within 2 days after treatment. Use 0.5 pound A342.01 on sand soil when only Mustard, Goosefoot, Lambsquarters, or Canary grass are the weeds to be controlled.

Restrictions:

- Do not apply earlier than 6 months after seeding.
- Pre-harvest Interval (PHI): Do not graze or harvest within 28 days after application.

ASPARAGUS

(Established)

A342.01 may be used in ground spray equipment or sprinkler irrigation (center pivot, lateral move, or solid set) systems as a single preemergence broadcast application or as a split application consisting of a preemergence broadcast application followed by a post-harvest broadcast application.

Refer to the "Product Information" section of this label for directions.

Weeds Controlled: A342.01, applied to established asparagus according to directions, will effectively control:

Broadleaves Chickweed, common (<i>Stellaria media</i>) Jimsonweed (<i>Datura Stramonium</i>) Lambsquarters (<i>Chenopodium album</i>) Pigweed, redroot (<i>Amaranthus retroflexus</i>)	Ragweed, common (<i>Ambrosia artemisiifolia</i>) Smartweed, Pennsylvania (<i>Polygonum pennsylvanicum</i>) Sorrel, red (<i>Rumex acetosella</i>) Velvetleaf (<i>Abutilon theophrasti</i>)
Grasses Crabgrass (<i>Digitaria</i> spp.) Foxtails (<i>Setaria</i> spp.)	Sandbur, field (<i>Cenchrus pauciflorus</i>)

Broadcast Applications	
Crop	A342.01 Lb/A
Asparagus (preemergence application only)	1.3 to 2.6 Preemergence Application Only: Make a single surface application in early spring before asparagus spears or ferns emerge. If the field is to be diked, apply A342.01 after disking but before the crop emerges. Use the lower rate for control of the broadleaf weeds listed above. Use the higher rate in fields with a history of severe infestations of grasses and for maximum residual control. Pre-harvest Interval (PHI): Do not apply within 14 days of harvest.
Asparagus (split application)	0.6 to 1.3 preemergence plus 1.3 to 2.0 post-harvest Split Application

	<p>Preemergence And Post Harvest: Preemergence Application: Apply before asparagus spears or ferns emerge. If the field is to be disked, apply after disking but prior to crop emergence. Pre-harvest Interval (PHI): Do not apply within 14 days of harvest.</p> <p>Post Harvest Application: Apply after last harvest of the season but prior to emergence. The lower combination rates may be used for control of Common ragweed, Lambsquarters, Redroot pigweed and Red sorrel. Use the higher combination rates for other weeds listed or in fields with severe grass infestations or for maximum post harvest control of emerged weeds.</p>
Important: The total amount of A342.01 applied in one crop season may not exceed 2.6 pound per acre.	

Restrictions (Asparagus):

- Aerial application is prohibited.
- Do not use on newly seeded asparagus nor on young plants during the first growing season after setting crowns.
- Do Not Apply Post Harvest Applications Until After The Last Harvest Of Spears.

CARROTS

Special Conditions of Sale Provision for Use on Carrots: The following directions for use were developed under the direction of IR-4 (government minor crops use program). Buyer is advised that Atticus, LLC makes no assurances regarding satisfaction with the product and to the extent, consistent with applicable law all risks of crop injury or product performance are assumed by the Buyer.

Apply A342.01 herbicide with ground equipment as specified below under “Applications”. For effective control of broadleaf weeds with postemergence applications, apply A342.01 before weeds are 1 inch in height or diameter. Thorough spray coverage is essential for adequate weed control.

Refer to the appropriate section of this label for additional information regarding spray equipment, dilution rates, mixing, sprayer cleanup, restrictions, container disposal and cautions.

Refer to “Mixing” under the “Product Information” section in the front of this label.

For specific application information see “Product Information” and “Application” sections at the front of this label.

Weeds Controlled: A342.01 applied to carrots according to directions will effectively control:

Carpetweed (<i>Mullugo verticillata</i>)	Pigweed, redroot (<i>Amaranthus retroflexus</i>)
Galinsoga (<i>Galinsoga parviflora</i>)	Pigweed, smooth (<i>Amaranthus hybridus</i>)
Horseweed (<i>Conyza canadensis</i>)	Pineappleweed (<i>Matricaria matricarioides</i>)
Lambsquarters, Common (<i>Chenopodium album</i>)	Prickly lettuce (<i>Lactuca serriola</i>)
Mustard, wild (<i>Sinapis arvensis</i>)	Shepherd’s-purse (<i>Capsella bursa-pastoris</i>)

Applications	
Crop	A342.01 Lb/A
Carrot	0.3
	Apply specified dosage per acre as a broadcast spray over the tops of carrot plants. Make application after carrots have formed 5 to 6 true leaves but before weeds are 1 inch in height or diameter. If needed, a second application may be made after an interval of at least 3 weeks. Pre-harvest Interval (PHI): Application may be made up to 60 days of harvest.
Important: The total amount of A342.01 applied in 1 crop season must not exceed 0.6 pound per acre.	

Restrictions (Carrots):

- Do not apply to carrots grown for seed.
- Do not apply within 3 days after periods of cool, wet or cloudy weather or crop injury will occur.
- Do not apply A342.01 within 3 days of any other chemical unless specified on this label.
- Do not apply on very hot days or excessive crop injury will result.
- Do not apply until carrots have at least 5 to 6 true leaves. Earlier applications will result in excessive crop damage.
- Do not use air blast or other high-pressure spray equipment to make postemergence applications of A342.01.

Crop injury or delayed maturity may result from applications of A342.01 if carrots are growing under stress conditions such as periods of drought or cool, wet and cloudy weather preceding application.

Following an application of A342.01, chlorosis (yellowing) and burning of the leaf tissue may occur.

For newly introduced varieties of carrots with unknown tolerance to A342.01, treat only a small area to determine if A342.01 can be used without injury to the crop.

FIELD CORN

Postemergence Application

A342.01 may be used for control of selected broadleaf weeds when applied as a tank mix combination with certain broadleaf herbicides presently registered for post-emergence use in field corn. Herbicides which may be tank mixed with A342.01 include:

2,4-D	Bromoxynil	Bentazon + atrazine	Dicamba
Atrazine	Bromoxynil + atrazine (Premix)	Imazethapyr*	Dicamba + atrazine
Bentazon		Flumiclorac	

*Use only on imazethapyr resistant/tolerant corn hybrids (IMI-Corn®).

Application: A342.01 may be applied to field corn after crop emergence until just prior to tasseling. Broadcast applications may be made with ground or aerial equipment. For optimum weed control, apply treatments when weeds are small and actively growing, but before reaching the maximum heights listed in the Weeds Controlled table.

Postemergence Broadcast Application

Ground Application: Adjust nozzle height above crop and weed canopy to ensure uniform spray coverage. Increase gallonage with increasing weed size and population density.

For tank mixes of A342.01 plus atrazine, bentazon, Laddock S-12, bromoxynil, bromoxynil + atrazine, imazethapyr, flumiclorac, or 2,4-D amine formulations, use flat fan nozzles spaced a maximum of 20 inches apart. Best results are achieved using a minimum spray volume of 10.0 gallons per acre and spray pressure from 20 to 40 psi.

For A342.01 tank mixes with Clarity, dicamba, dicamba + atrazine, or 2,4-D low volatile ester formulations, use drift-reducing nozzles which are specifically designed to produce coarse sprays and reduce the amount of driftable fines. Additional measures which will help avoid potential drift to sensitive crops and plants include a minimum spray volume of 20.0 gallons per acre and keeping spray pressures at or below 20 psi unless otherwise specified by the nozzle manufacturer.

For further precautions and additional instructions and recommendations, consult the tank mix partner's label.

Aerial Application: Apply in a minimum spray volume of 3.0 gallons per acre. For optimum spray coverage and distribution, use a minimum of 5.0 gallons per acre and a maximum pressure of 40 psi. Use a boom and nozzle configuration which will provide a uniform deposition pattern and coverage with low drift potential. Avoid overlaps to prevent potential crop injury. Do not apply near sensitive crops or sensitive plants growing near the treated area. Do not apply when wind speed is greater than 10 mph or when winds are moving towards sensitive crops or plants. To avoid drift hazards, applicator must follow the most restrictive labeling of the products used in a tank mix. Refer to the appropriate tank mix partner's label for further precautions and recommendations.

Post Directed Application

A342.01 in tank mix combinations with 2,4-D, bromoxynil or dicamba may be applied post directed to field corn. Use drop nozzles and appropriate spacing to direct spray below the corn whorl and upper leaves. The top of the target weed canopy must be sufficiently below the whorl and upper leaves of the crop to permit this application and provide adequate spray coverage. The height differential required between the crop and weed canopy will depend on the specific equipment used. Apply before tassel emergence. For further precautions and additional recommendations, refer to the appropriate tank mix partner's label.

Adjuvants

The adjuvant types listed below may be utilized with certain A342.01 tank mix combinations. Consult the tank mix section for the appropriate adjuvant and rate. Use of other adjuvants or rates not listed on this label may result in severe leaf burn, crop stunting, and/or stand reduction. Use only adjuvants which are exempt from tolerance requirements under 40 CFR 180.1-001.

UAN (urea ammonium nitrate) is commonly referred to as 28, 30, or 32% N.

Ammonium sulfate (spray grade) may be used as an alternative to UAN with certain tank mix combinations.

Non-ionic surfactants should contain at least 80% active ingredient.

DO NOT USE crop oil concentrate (COC) or any adjuvant containing vegetable or petroleum oils with any A342.01 tank mixtures as severe leaf burn, crop stunting, and/or stand reductions may occur.

Rainfastness

A342.01 will not reduce rainfastness of the listed tank mix partners. Refer to the individual product labels for rainfastness recommendations.

Sprayer Cleanup

Refer to each tank mix partner's label and the Sprayer Cleanup section of the A342.01 label for specific instructions on cleaning spray equipment. Special attention should be given to the required cleanup procedures for 2,4-D, dicamba and dicamba + atrazine.

Restrictions:

- Do not use on corn grown for seed, sweet corn, popcorn, or white corn.
- Do not apply more than 0.25 pound active ingredient metribuzin (5.3 ounces A342.01) per acre per use season.
- Do not apply when field corn is under stress (see Stress statement below).
- Do not use aerial applications if sensitive crops or plants are growing in the vicinity of the area to be treated.
- Do not allow spray drift onto sensitive crops or plants.
- Do not use on sand, loamy sand or sandy loam soils that have less than 0.5% organic matter.
- Do not use on sand or loamy sand soils in Washington, Oregon or Idaho or crop injury may occur.
- Observe all precautions and limitations on labeling of all products used in the tank mixtures.

Stress is any condition or combination of conditions which impairs normal crop growth. Weather, disease, insect damage, fertility or other factors may cause stress. Applications made before or after the corn is under stress from these factors or from periods of prolonged cool, wet and cloudy weather or widely fluctuating day and nighttime temperatures, may result in temporary leaf burn, yellowing and/or stunting of the crop. Recovery from damage is generally rapid with no lasting effects on new growth. Under extreme stress, stand reductions may occur.

Feeding Restrictions: Pre-harvest Interval (PHI): Field corn treated with A342.01 may be grazed or harvested for silage or grain 60 days after treatment. Follow the most restrictive preharvest interval on the labels of the products used in the tank mixtures.

Tank Mix Combinations

The A342.01 tank mixtures listed below can be utilized for control of certain annual broadleaf weeds.

A342.01 Postemergence Broadcast Directions		
Product	Rate	Directions And Remarks*
A342.01 + 2,4-D amine or 2,4-D EHE	2.0 oz/A + See reference ¹	Apply as a broadcast spray during the interval from corn emergence until corn is 8 inches tall. Apply only to varieties known to be tolerant to 2,4-D. DO NOT USE ADJUVANTS. 2,4-D may cause injury to nearby sensitive crops. 2,4-D applications may result in brittle corn stalks and winds or cultivation may cause stalk breakage. To reduce damage, delay cultivation 8 to 10 days after application.
A342.01 + atrazine	2.0 oz/A + See reference ¹ label for use rates).	Apply as a broadcast spray during the interval from corn emergence until corn is 12 inches tall. A non-ionic surfactant (1.0 qt/100 gal of spray solution) may be added to improve weed control. Atrazine is a restricted use herbicide. Follow all state and federal label recommendations and restrictions pertaining to atrazine applications.
A342.01 + dicamba	2.0 oz/A + See reference ¹	Apply as a broadcast spray during the interval from corn emergence through the 5-leaf stage or when corn is 8 inches tall, whichever occurs first. For dicamba applications to corn greater than 8 inches in height, consult the dicamba label for use rates and restrictions. If growing conditions are dry and plants are stressed, addition of a non-ionic surfactant (1.0 qt/100 gal of spray solution) may improve weed control. For corn grown on coarse, textured soils, apply dicamba as per specific label rates, regardless of application method. Application may cause injury to nearby sensitive crops or plants. Application may result in temporary leaning of corn plants. Delay cultivation until plants return to normal growth patterns to avoid stalk breakage.
A342.01 + bentazon	2.0 oz/A + See reference ¹	Apply as a broadcast spray after corn emergence but before corn exceeds 30 inches in height and the crop canopy closes the row. Adjuvants such as UAN (0.5 to 1.0 gal/A), ammonium sulfate (17.0 lb/100 gal of spray solution), or non-ionic surfactant (1.0 qt/100 gal of spray solution) may improve weed control.
A342.01 + bromoxynil	1.6 to 2.0 oz/A + See reference ¹	Apply as a broadcast spray when corn is in the fourth true leaf or later but before the crop canopy closes the row. DO NOT USE ADJUVANTS. Occasionally temporary corn leaf burn may occur and is similar to that observed from liquid fertilizers. Recovery is generally rapid with no lasting effect.

		To reduce potential for crop damage, make application to dry corn foliage when weather conditions are not extreme.
A342.01 + bromoxynil + atrazine (premix)	1.6 to 2.0 oz/A + See reference ¹	Apply as a broadcast spray during the interval from corn emergence until corn is 12 inches tall. DO NOT USE ADJUVANTS. Occasional temporary corn leaf burn may occur and is similar to that observed from liquid fertilizers. Recovery is generally rapid with no lasting effect. To reduce potential for crop damage, make application to dry corn foliage when weather conditions are not extreme.
A342.01 + bentazon + atrazine	2.0 oz/A + See reference ¹	Apply as a broadcast spray after corn emergence until the corn is 12 inches tall. Adjuvants such as UAN (0.5 to 1.0 gal/A) may increase weed control. bentazon + atrazine contains atrazine, and is a restricted use product. Follow all state and Federal label recommendations and restrictions pertaining to atrazine.
A342.01 + dicamba + atrazine	2.0 oz/A + See reference ¹	Apply as a broadcast spray during the interval from corn emergence through the 5-leaf stage or when corn is 8 inches tall, whichever occurs first. DO NOT USE ADJUVANTS. Application may cause injury to nearby sensitive crops or plants. Application may result in temporary leaning of corn plants. Delay cultivation until plants return to normal growth patterns to avoid stalk breakage. Dicamba + atrazine contains atrazine and is a restricted use product. Follow all state and federal label recommendations and restrictions pertaining to atrazine.
A342.01 + imazethapyr	2.0 oz/A + See reference ¹	Use only on designated IMI-Corn hybrids (hybrids which are resistant/tolerant to imazethapyr). Apply the 4.0 oz rate of imazethapyr if grasses are present or broadleaf weeds are near the maximum heights shown. Apply in combination with a non-ionic surfactant (1.0 qt/100 gal of spray solution) and UAN (1.0 to 2.0 qt/A).
A342.01 + flumiclorac	3.0 fl oz/A + See reference ¹	Apply as a broadcast spray to field corn from 2-leaf through 10-leaf (visible leaf collars) stage. Adjuvants such as nonionic surfactant (0.25% v/v), UAN (2% v/v) or ammonium sulfate (2.5 lb/A) may increase weed control.
*Consult the appropriate tank mix partner's label for additional recommendations or restrictions. The most restrictive labeling applies to tank mixes with A342.01. ¹ Refer to the specific 2,4-D, atrazine, dicamba, bentazon, bromoxynil, bentazon + atrazine, bromoxynil + atrazine (premix), dicamba + atrazine, imazethapyr, and flumiclorac labels for use rates.		

A342.01 Post Directed Directions		
Product	Rate	Directions And Remarks*
A342.01 + 2,4-D Amine or 2,4-D EHE	2.0 to 3.0 oz/A + See reference ¹ or See reference ¹	For corn greater than 8-inches tall, apply as a directed spray with drop nozzles before tassel emergence. Apply only to varieties known to be tolerant to 2,4-D. DO NOT USE ADJUVANTS. 2,4-D may cause injury to nearby sensitive crops. 2,4-D applications may result in brittle corn stalks and winds or cultivation may cause stalk breakage. To reduce damage, delay cultivation 8 to 10 days after application.
A342.01 + Dicamba	2.0 to 3.0 oz/A + See reference ¹	For corn 8 to 36 inches tall, apply as a directed spray with drop nozzles. Application may be made up to 15 days prior to corn tasseling. If growing conditions are dry and plants are stressed, addition of a non-ionic surfactant (1.0 qt/100 gal of spray solution) may improve weed control. For corn grown on coarse textured soils, apply dicamba as per

		specific label rates, regardless of application method. Applications may cause injury to nearby sensitive crops or plants. Application may result in temporary leaning of corn plants. Delay cultivation until plants return to normal growth patterns to avoid stalk breakage.
A342.01 + Bromoxynil	2.0 to 3.0 oz/A + See reference ¹	Apply as a directed spray with drop nozzles before tassel emergence. DO NOT USE ADJUVANTS. Occasional temporary corn leaf burn may occur and is similar to that observed from liquid fertilizers. Recovery is generally rapid with no lasting effect. To reduce potential for crop damage, make application to dry corn foliage when weather conditions are not extreme.
*Consult the appropriate tank mix partner's label for additional recommendations or restrictions. The most restrictive labeling applies to tank mixes with A342.01.		
¹ Refer to the specific 2,4-D, dicamba, bromoxynil labels for use rates.		

Weeds Controlled – Postemergence Broadcast Application

These tank mixtures with A342.01 will control the following annual weeds up to the maximum weed heights listed:

A342.01 +									
	Atrazine	Dicamba	Bentazon	Bromoxynil/Bromoxynil + atrazine	2,4-D	Dicamba + atrazine	Imazethapyr	Bentazon + atrazine	Flumiclorac
COMMON WEED NAME	MAXIMUM WEED HEIGHT IN INCHES*								
Amaranth, Palmer	4 ^a	4	2 ^a	4 ^a	4	4	8 ^b	6	4
Buckwheat, wild	3	3	3	3	2	3	2	3	4
Buffalobur	4	4		4		4	1		
Burcucumber		4		4	2	4			
Carpetweed	2	2	2	2	2	2		2	3
Cocklebur, common	8	8	8	8	8	8	8 ^b	8	3
Eclipta	3	3	3	3	3	3		3	
Henbit	3	3	2	2	2	4	3	3	
Horseweed/Marestail	3	4	1	1	3	6		2	3
Jimsonweed	5	5	6	5	5	5	5	6	3
Knotweed	6	6	6	4	2	6	4	6	
Kochia	2 ^a	2	1 ^a	2 ^a	2 ^a	2	2	2 ^a	
Ladysthumb	6	6	6	6	4	6	4	6	4
Lambsquarters, common	6 ^a	6	1	6	6	6	4	5	4
Lettuce, prickly	4	4		3	4	5		3	
Mallow, Venice	2	2	2	2	2	2	2	4	
Morningglory, entire leaf	3	3	1	3	3	3	2	2	
Morningglory, ivyleaf	3	3	1	3	3	3	2	2	
Morningglory, pitted	3	3	1	3	3	3	2	2	
Morningglory, tall	3	3	1	3	3	3	2	2	
Mustard, tansy	4	4	4	4	4	4	4	4	
Mustard, wild	4	4	4	4	4	4	4	4	
Nightshade, black	6	6		6	1	6	3	1	
Nightshade, eastern black	6	6		6	1	3	1		4
Pigweed, redroot	6 ^a	6	2 ^a	6 ^a	6	6	8 ^b	6 ^a	4
Pigweed, smooth	6 ^a	6	2 ^a	6 ^a	6	6	8 ^b	6 ^a	4
Poorjoe	3	3	3	3	3	3	3	3	
Purslane, common	1	3				4	1		

Pusley, Florida	3	3	3	3	3	3		3	3
Ragweed, common	5	5	3	5	5	6	3	4	3
Ragweed, giant	4	5	2	4	3	6	4	4	
Sicklepod	3	3	3	3	3	3	3	3	
Sida, prickly	1	1	3	1	1	2	1	2	2
Smartweed, Pennsylvania	6	6	6	6	4	6	4	6	4
Sunflower, common	6	6	6	6	6	6	5	6	
Thistle, Russian	1	3		3	1	3	1	1	
Velvetleaf	6 ^a	6	6	6	4	6	5	6	6
Waterhemp, spp.	5 ^a	5	2 ^a	5 ^a	5	5	4 ^b	2 ^a	4

*When weeds are approaching the maximum height listed or are found in high densities, use the higher rate of A342.01 and the selected tank mix partners.

^aThese treatments will not control triazine resistant biotypes.

^bThese treatments will not control ALS resistant biotypes.

WEEDS CONTROLLED – POST DIRECTED APPLICATION

These tank mixtures with A342.01 will control the following annual weeds up to the maximum heights listed:

COMMON WEED NAME	A342.01 +		
	2,4-D	Dicamba	Bromoxynil
MAXIMUM WEED HEIGHT IN INCHES*			
Amaranth, Palmer	12	12	6
Cocklebur, common	12	12	12
Jimsonweed	12	10	10
Ladysthumb	6	8	6
Lambsquarters, common	12	12	10
Morningglory, entire leaf	18	18	6
Morningglory, ivyleaf	18	18	6
Morningglory, pitted	18	18	6
Morningglory, tall	18	18	6
Nightshade, black	10	8	8
Nightshade, eastern black	10	8	8
Pigweed, redroot	12	12	6
Pigweed, smooth	12	12	6
Ragweed, common	8	8	8
Ragweed, giant	12	12	8
Smartweed, Pennsylvania	6	8	6
Sunflower, common	12	12	12
Velvetleaf	10	8	8
Waterhemp, tall	12	12	6

*When weeds are approaching the maximum height listed or found in high densities, use the higher rate of A342.01 and the selected tank mix partners.

PERENNIAL WEED SUPPRESSION

The following A342.01 tank mixtures will provide top growth burndown and in season suppression of the following perennial weeds; however, regrowth may occur. For the best performance on these weeds, use the maximum rates of A342.01, bromoxynil, bromoxynil + atrazine, Clarity, dicamba, dicamba + atrazine, 2,4-D EHE or imazethapyr specified for these tank mixtures.

A342.01 + Dicamba

Bindweed, field; Dandelion, common; Dock, curly; Smartweed, swamp; Thistle, Canada.

A342.01 + Bromoxynil or Bromoxynil + atrazine

Thistle, Canada

A342.01 + 2,4-D EHE

Bindweed, field; Dandelion, common; Dock, curly; Smartweed, swamp; Thistle, Canada.

A342.01 + Imazethapyr

Thistle, Canada.

PREPLANT AND PRE-EMERGENCE

Illinois, Indiana, Iowa, Kansas, Kentucky, Michigan, Minnesota, Missouri, Nebraska, Ohio, South Dakota and Wisconsin

A342.01 may be used for additional residual control of certain broadleaf weed species in corn when applied as a tank mix combination with both grass and broadleaf herbicides registered and labeled for use in field corn. A342.01 can be tank mixed with the following herbicides:

Acetochlor+Atrazine Alachlor Atrazine	Atrazine+S-metolachlor Dicamba Dicamba+ atrazine	Dimethenamid+atrazine Imazethapyr ^a Imazethapyr+Pendimethalin Linuron	Metolachlor Pendimethalin Simazine S-Metolachlor S-Metolachlor+Atrazine
---	--	---	---

*Use only on imazethapyr resistant/tolerant corn hybrids (IMI corn).

Application: A342.01 may be applied to field corn preplant without incorporation up to 30 days prior to planting or preemergence. Applications may be made by either ground or aerial equipment. For tank mixes, follow the most restrictive application methods of all products used.

Restrictions:

- Do not apply more than 5.33 ounces A342.01 (0.25 pound active ingredient) per acre per growing season.
- Do not apply on soils having pH 7.0 or greater.

Precautions:

- Corn seed should be planted a minimum of 1-1/2 inches deep.
- A342.01 may only be used in hybrid seed corn production fields if both inbred parents are known to be tolerant to A342.01.
- Do not use on muck soils as reduced weed control may result.
- Observe all precautions and limitations on labeling of all products used in tank mixes.

Feeding restrictions: Pre-harvest Interval (PHI): Corn treated with A342.01 may be harvested for silage or grain 60 days after treatment. For tank mixes, follow the most restrictive preharvest interval of all products used.

Weeds controlled: A342.01 will aid in the residual preemergence control of the following weed species when tank mixed with other registered grass and/or broadleaf corn herbicides:

Horseweed/Marestail Ladysthumb Lambsquarters, common Pigweed, spp. Ragweed, common	Smartweed, Pennsylvania Sunflower Velvetleaf Waterhemp, Tall
--	---

*For control of emerged weeds refer to the "Burndown Weed Control" section of the A342.01.

A342.01 Field Corn Rate Directions

States	Application Timing	A342.01 Oz/A
Iowa Kansas Missouri Nebraska South Dakota	Preplant (0 to 30 days) Preemergence	2.0 to 5.33
Illinois Indiana Kentucky Michigan Minnesota Ohio Wisconsin	Preplant (10 to 30 days)	2.0 to 5.3
	Preplant (0 to 9 days) Preemergence	2.0 to 4.0

Remarks: Apply as a broadcast spray prior to corn emergence from the soil.

Restrictions:

- Do not apply A342.01 on coarse textured soils with less than 1.5% organic matter.
- Do not apply more than 4.0 ounces A342.01 per acre on soils with less than 2.0% organic matter.

For heavy weed infestations and/or early preplant applications, use the higher rates of A342.01. Consult the label of herbicide tank mix partners to determine proper use rates for the other product(s).

GARBANZO BEANS (Chickpeas)

(California, Idaho, Oregon and Washington)

Special Conditions of Sale for Use on Garbanzo Beans (Chickpeas): The following directions for use were developed under the direction of IR-4 (government minor crops use program). Buyer is advised that Atticus, LLC makes no assurances regarding satisfaction with the product and that to the extent consistent with applicable law all risks or crop injury or product performance are assumed by the Buyer.

A342.01 herbicide may be used as a preemergence application for the suppression of certain broadleaf weeds in garbanzo beans.

WEEDS SUPPRESSED*:

Common chickweed Common lambsquarters	Dog fennel (Mayweed) Field pennycress henbit	Pigweed Shepherd's-purse	Wild mustard
--	---	-----------------------------	--------------

*Suppression is a reduction in weed size and growth compared to a non-treated area in the same field. A342.01 used alone will not control triazine-resistant weed species.

Broadcast Applications

Crop	A342.01 Lb/A
Garbanzo beans	0.3 to 0.5 Apply specified dosage in a single preemergence application using 10.0 to 40.0 gal of water/A with ground spray equipment. Apply before or after planting but before crop emergence. Thorough incorporation, either by rainfall or by mechanical means, is essential for weed suppression. Under dry conditions, incorporate A342.01 into the top 1 to 2 inches of soil with spike harrows, or similar shallow incorporation equipment, then cross harrow to ensure uniform soil incorporation. Where soil surface is moist at the time of application and rain follows before weed emergence, a broadcast application should provide adequate weed suppression. Use on coarse-textured soils, sandy soils or any soil with less than 1.5% organic matter will likely cause crop injury. Use the higher rate on fine

	textured soils (high in clay or organic matter) and in fields with a history of high weed populations.
--	--

Restrictions:

- Crop injury may result if crop is under stress conditions caused by cold weather, poor soil fertility, diseases or insect damage.
- Do not use on clay knobs or poorly covered subsoils.
- Do not apply preemergence on shallow seedlings less than 2 inches deep.
- Do not graze or feed treated vines to livestock within 40 days after application.

Precautions:

- Crop injury may result if application is followed by heavy rain. Avoid application of more than ½ inch of irrigation within one month after application of A342.01, or crop injury may occur.
- This treatment may cause some chlorosis or minor necrosis. Because garbanzo bean varieties may vary in their susceptibility to A342.01, determine crop tolerance prior to adoption as a field scale practice to prevent possible injury.

LENTILS AND PEAS

(Idaho, Oregon, Washington, Montana and North Dakota)

A342.01 herbicide may be used as a preemergence and postemergence application for the suppression of certain broadleaf weeds in lentils and peas.

Weeds Suppressed*

Common chickweed** Corn spurry Dog fennel Field pennycress Henbit** Lambsquarters	Pennsylvania smartweed Pineapple weed Prostrate knotweed Redroot pigweed Shepherd's-purse** Wild mustard
--	---

*Suppression is a reduction in weed size and growth compared to a non-treated area in the same field.

**Preemergence application only.

Preemergence Application: Make a single preemergence application of A342.01 at 0.25 to 0.5 pound per acre per crop year. Apply in 10.0 or more gallons of water per acre with ground spray equipment or 5.0 or more gallons of water per acre with aerial spray equipment. Apply A342.01 before or after planting. Thorough incorporation, either by rainfall or by mechanical means, is essential for weed suppression. Under dry conditions, incorporate A342.01 into the top 1 to 2 inches of soil with spike harrows, or similar shallow incorporation equipment, then cross harrow to ensure uniform soil incorporation. Where soil surface is moist at the time of application and rain follows before weed emergence, a broadcast application should provide adequate weed suppression.

Use the higher rate on fine textured soils (high in clay or organic matter) and in fields with a history of high weed populations.

A342.01 may be applied pre- or post-plant incorporated as a tank mix combination with Far-Go® 4EC. Follow the Direction for Use Statements on both product labels.

Postemergence Application: One postemergence application may be made per season. Use 0.16 to 0.3 pound of A342.01 per acre on **lentils** and **spring peas**. On **winter peas**, use 0.25 to 0.3 pound of A342.01 per acre. For suppression of Dog fennel, use 0.3 pound A342.01 per acre. Apply specified dosage in 20.0 or more gallons of water per acre with ground spray equipment or 5.0 or more gallons of water per acre with aerial spray equipment. Do not exceed 40 psi with ground spray equipment. Apply as a broadcast spray when weeds are small (less than 2 inches in height or diameter) and before crop is 6 inches tall.

Precautions:

- Temporary chlorosis of the crop may occur. There is an added risk of crop injury if a postemergence application is made following a previous preemergence or post plant incorporated A342.01 application.
- Do not apply over very moist soils or wet crop foliage. Do not apply postemergence applications within 3 days after periods of cool, wet, or cloudy weather or crop injury may occur.
- Do not apply within 24 hours of treatment with other pesticides.
- Crop injury may result if crop is under stress conditions caused by cold weather, low fertility, disease or insect damage.
- Crop injury may also result if application is followed by heavy rain.
- Do not apply to "Estin" lentils.
- This treatment may cause some chlorosis or minor necrosis. Because lentil and pea varieties may vary in their susceptibility to A342.01, determining crop tolerance prior to adoption as a field scale practice is suggested to prevent possible injury.

Restrictions (Lentils and Peas):

- Do not apply more than 0.6 pound A342.01 per acre per year.
- Do not use on coarse-textured soils, sandy soils or soils with less than 1.5% organic matter.
- Do not use on clay knobs or poorly covered subsoils.
- Do not apply on shallow seedlings less than 2 inches deep (preemergence only).
- Pre-harvest Interval (PHI): Do not apply within 50 days of harvest of peas, or within 75 days of harvest of lentils.
- Do not graze or feed treated vines to livestock within 40 days after application.

Maintain continuous spray tank agitation to keep material in suspension. Avoid overlapping and shut off spray booms while turning, slowing or stopping, or crop injury may occur.

For additional precautions, restrictions, limitations, and sprayer clean-up information refer to the appropriate sections of this label.

RESTRICTIONS FOR AREAS OF SUGARCANE USE

- For aerial and chemigation application methods on sugarcane the maximum application rate is 2.6 pounds A342.01 per acre.
- To assure that spray will not adversely affect adjacent sensitive nontarget plants, apply this product by aircraft at a minimum upwind distance of 400 feet from sensitive plants.
- Do not rotate any crop not listed on this label for 18 months following application.
- Do not use treated foliage for feed or forage.

**SUGARCANE
(Hawaii Only)**

A342.01, a selective herbicide, is effective as a preemergence and an early postemergence broadcast application for control of certain grass and broadleaf weeds. When applied as a spot treatment, it also provides excellent control of perennial grasses and broadleaves.

Ground Application: Mix A342.01 by filling the spray tank half full of clean water. Then add the specified amount of A342.01 to suit the total tank capacity and the rate of application per acre (preferably 25.0 to 35.0 gallons per acre). Complete filling the tank and maintain sufficient agitation during mixing and spraying to ensure a uniform spray mixture.

Aerial Application: A342.01 may be used in aerial spray equipment as a preemergence or postemergence application to irrigated sugarcane. Calibrate aerial spray equipment to apply the proper amount of A342.01 in 5.0 to 10.0 gallons of spray mixture per acre.

A342.01 applied preemergence or postemergence to the sugarcane as a broadcast spray or spot treatment will effectively control the following when weeds are less than 3 inches in height.

Weeds Controlled in Irrigated and Non-irrigated Sugarcane

Broadleaves
Amaranth, spiny (<i>Amaranthus spinosus</i>) Euphorbia, wild (<i>Euphorbia</i> spp.) Fireweed (<i>Erechtites hieracifolius</i>) Floras paintbrush (<i>Emilia sonochifolia</i>) Spurge, garden (<i>Euphorbia hirta</i>) Spurge, graceful (<i>Euphorbia glomerifera</i>)
Grasses
Crabgrass (<i>Digitaria</i> spp.) Guineagrass (<i>Panicum maximum</i>) Plushgrass (<i>Chloris radiata</i>) Ryegrass (<i>Oryzopsis hymenoides</i>) Wiregrass (<i>Eleusine indica</i>)

Weeds Controlled in Irrigated Sugarcane Only

Broadleaves
Amaranth, spleen (<i>Amaranthus dubius</i>) Haole koa (<i>Leucaena leucocephala</i>) Hialoa (<i>Waltheria americana</i>) Hilahila (<i>Mimosa pudica</i>) Purslane, common (<i>Portulaca oleracea</i>) Rattlepod (<i>Crotalaria spectabilis</i>)
Grasses
Alexandergrass (<i>Brachiaria plantaginea</i>) Bristly foxtail (<i>Setaria verticillata</i>)

Weeds Controlled in Non-Irrigated Sugarcane Only

Broadleaves ageratum (<i>Ageratum conyzoides</i>) Richardia (<i>Richardia brasiliensis</i>) Tarweed (<i>Cuphea carthagenesis</i>)

Sugarcane (Hawaii Only)

Broadcast Applications

A342.01 (Lb/A)	Remarks
2.6 to 5.3 (non-irrigated) 5.3 to 8.0 (irrigated)	Preemergence (Irrigated and non-irrigated sugarcane): Apply specified dosage/A as a broadcast spray to the soil surface. Make applications within 2 weeks after planting prior to cane emergence or shortly after emergence (spike stage). OR Early Postemergence (Irrigated and non-irrigated sugarcane): Apply specified dosage/A as a broadcast spray over the cane. Application may be delayed as long as 4 to 6 weeks after planting provided weeds are less than 3 inches in height.
2.6 to 5.3	OR

	Postemergence: Apply specified dosage/A as a broadcast spray to control weeds prior to “close in” time when cane shades out the weed growth.
3.3 to 6.6	Spot Treatment: Apply specified dosage in 30.0 to 50.0 gal of finished spray/A. Spot Treatments may be used to control weeds in missed areas, corners of fields, or areas of hard to control weeds.

Restrictions: Do not apply more than 10.6 pounds of A342.01 (8.0 pounds active ingredient)/A/ crop cycle regardless of the method of application. Pre-harvest Interval (PHI): The last application may be made up to 17 months of harvest.

SUGARCANE

(Louisiana and Texas Only)

Preemergence and postemergence applications of A342.01 with aerial or ground spray equipment may be used for control of the following weed in sugarcane in Louisiana and Texas:

Broadleaves	
Amaranth, spiny (<i>Amaranthus spinosus</i>) Bindweed, field (<i>Convolvulus arvensis</i>) Chickweed (<i>Cerastium vulgatum</i>) Henbit (<i>Lamium amplexicaule</i>) Lambsquarters (<i>Chenopodium album</i>) London rocket (<i>Sisymbrium irio</i>) Marestail (<i>Conyza canadensis</i>) Mustard, wild (<i>Brassica kaber</i>) Pigweeds (<i>Amaranthus</i> spp.) Purslane (<i>Portulaca oleracea</i>) Sowthistle (<i>Sonchus</i> spp.)	
Grasses	
Broadleaf Signalgrass (<i>Brachiaria platyphylla</i>) Crabgrass (<i>Digitaria</i> spp.) Foxtails (<i>Setaria</i> spp.) Johnsongrass, seedling (<i>Sorghum halepense</i>) Oats, winter (<i>Avena</i> spp.)	

Sugarcane (Louisiana and Texas Only)

Applications

A342.01 (Lb/A)	Remarks
2.0 to 4.0	Broadcast: Apply specified dosage per acre using 20.0 to 30.0 gal of water with ground equipment or 5.0 gal of water with aircraft spray equipment. Apply as a broadcast spray during the fall after planting or to the stubble after harvest. Make a second application early in the spring.
1.0 to 2.0	Band: Apply specified dosage in 10.0 to 20.0 gal of water/A in a 30- to 36-inch band over the row during the fall after planting or to the stubble after harvest. Make a second application early in the spring.

Restrictions (Louisiana and Texas only):

- Use the higher rate on heavy clay soil and soil with a high percentage of organic matter.
- If necessary, a third application may be made in late spring at layby.
- Pre-harvest Interval (PHI): Do not apply within 60 days of harvest.

SUGARCANE

(Florida Only)

Postemergence over-the-top or directed spray applications of A342.01 may be used for the control of the following weeds in sugarcane in Florida.

Broadleaves
Amaranth, spiny (seedling) (<i>Amaranthus spinosus</i>) Butterweed (Cressleaf groundsel) (<i>Senecio glabellus</i>) Cudweed (<i>Gnaphalium</i> spp.) Purslane (<i>Portulaca oleracea</i>)
Grasses
Crabgrass, large (<i>Digitaria sanguinalis</i>) Foxtail, bristlegrass (<i>Setaria magna</i>) Goosegrass (<i>Eleusine indica</i>) Panicum, broadleaf (<i>Panicum adspersum</i>) Signalgrass, broadleaf (<i>Brachiaria platyphylla</i>)

Sugarcane (Florida Only) Applications

A342.01 (Lb/A)	Remarks
1.3 to 2.6	Ground Application: A342.01 may be used in 1 or 2 applications with a minimum of 14 days between each application. Apply when weeds are less than 6 inches tall in 10.0 to 40.0 gal of spray mixture/A. Postemergence Broadcast or Band: Apply over the top of stubble or plant cane while sugarcane is less than 14 inches tall. Postemergence Directed Spray: Apply to sugarcane that is a minimum of 14 inches tall and before row closing.
1.3 to 2.0	Aerial Application: Apply when weeds are less than 4 inches tall in 5.0 to 10.0 gal of spray mixture/A. Apply to stubble or plant can while the sugarcane is less than 14 inches tall.

A342.01 Plus Atrazine Tank Mix: A342.01 may be used with atrazine as a preemergence or postemergence (before row closing) application to sugarcane. Rates for A342.01 are 1.0 to 2.6 pounds per acre. Consult the atrazine product label for use rates. For additional information on precautions, instructions, limitations, application, and weed controlled, refer to this label and the atrazine label.

Restrictions (Florida only):

- Do not use more than 2.6 pounds per acre in a single growing season.
- Do not use on sand soils.
- Pre-harvest Interval (PHI): Do not apply within 60 days of harvest. Do not use treated crop for feed or forage.

Precautions:

- Avoid spray overlaps or variations in application speed that may result in insufficient or excessive rates of application.
- Spray contact with sugarcane foliage may result in minor leaf margin chlorosis and/or necrosis.

TOMATOES

Apply A342.01 herbicide with ground equipment to seeded and transplanted tomatoes as specified below under "Applications".

For effective control of grasses and broadleaf weeds with postemergence applications, apply A342.01 before weeds are 1-inch tall. Thorough spray coverage on weed foliage is essential for adequate control with postemergence applications.

Refer to the appropriate section of this label for additional information regarding spray equipment, dilution rates, mixing, sprayer, cleanup, restrictions, container disposal and cautions.

For specific application information see the "Product Information" section in the front of this label.

WEEDS CONTROLLED

PREPLANT INCORPORATED APPLICATIONS TRANSPLANT TOMATOES ONLY

Broadcast Sprays – 0.3 to 0.6 Lb A342.01/A
Broadleaves
Galinsoga (<i>Galinsoga</i> spp.) Lambsquarters (<i>Chenopodium album</i>) *Pigweed, redroot (<i>Amaranthus retroflexus</i>) *Purslane, common (<i>Portulaca oleracea</i>)
Grasses
*Goosegrass (<i>Eleusine indica</i>)
Preplant incorporated applications applied as directed will suppress Foxtails, Panicums and Barnyardgrass. A342.01/Trifluralin Tank Mix: This tank mix combination applied preplant incorporated as directed on this label will control the weeds listed above plus those weeds listed on the trifluralin label.
*For optimum control of these weeds, use the higher rate provided on the label for the type of application to be made. Repeat postemergence applications may be needed for best control. Postemergence applications as directed on this label will suppress Barnyardgrass and Crabgrass when these weeds are less than 1 inch tall.

WEEDS CONTROLLED

POSTEMERGENCE APPLICATIONS ESTABLISHED TOMATOES

For effective control of weeds with postemergence applications, apply A342.01 before weeds are 1-inch tall.

Broadcast Sprays 0.3 to 0.6 Lb A342.01/A
Broadleaves
Carpetweed (<i>Mollugo verticillata</i>) Fumitory (<i>Fumaria officinalis</i>) Galinsoga (<i>Galinsoga</i> spp.) *Jimsonweed (<i>Datura stramonium</i>) *Ladysthumb (<i>Polygonum persicaria</i>) Lambsquarters (<i>Chenopodium album</i>) Mustard, wild (<i>Brassica kaber</i>) Pigweeds (<i>Amaranthus</i> spp.) Purslane (<i>Portulaca oleracea</i>) *Ragweed, common (<i>Ambrosia artemisiifolia</i>) *Smartweed, Pennsylvania (<i>Polygonum pensylvanicum</i>) Toadflax (<i>Linuria</i> spp.) *Velvetleaf (<i>Abutilon theophrasti</i>)
Directed Sprays 0.6 to 1.3 Lb A342.01/A
Grasses
*Foxtail, yellow (<i>Setaria glauca</i>) Goosegrass (<i>Eleusine indica</i>)
Plus Weeds Listed Under Broadcast Sprays
*For optimum control of these weeds, use the higher rate provided on the label for the type of application to be made. Repeat postemergence applications may be needed for best control. Postemergence applications as directed on this label will suppress Barnyardgrass and Crabgrass when these weeds are less than 1-inch tall.

Broadcast Applications for Tomatoes

A342.01 *Lb/A	Remarks
0.3 to 0.6	Preplant Incorporated – Transplant Tomatoes Only: Apply specified dosage in 10.0 or more gal of water/A as a broadcast spray to the soil surface

	immediately before transplanting. Incorporate to a depth of 2 to 4 inches with equipment capable of uniformly mixing the chemical into the soil. This application may be made alone or in a tank mix combination with trifluralin. When transplanting tomatoes, place the root system of the plants below the herbicide incorporation zone or injury may occur. Refer to the trifluralin label for specific rate of application and for additional precautions and restrictions for tomatoes.
0.3 to 0.6	Postemergence Broadcast Spray – Established Tomatoes: Apply specified dosage in 20.0 or more gal of water/A as a broadcast spray, or apply in ¼ to ¾ inch of water (use ¼ to ½ inch of water on sandy soils)/A as a continuous injection in center pivot and lateral move systems or apply in the last 15 to 30 minutes of set in permanent solid set sprinkler systems. One or more applications may be applied/use season. Allow at least 14 days between applications or severe crop injury may occur. For transplanted tomatoes, do not apply until transplants have recovered from transplant shock and new growth is evident. Do not apply to tomatoes within 24 hours of application of other pesticides. Do not tank mix with other pesticides. (See “Special Precautions” below.)
0.6 to 1.3	Postemergence Directed Spray – Established Tomatoes: Apply specified dosage in 20.0 or more gal of water/A as a directed spray. One or more applications may be applied/use season. Allow at least 14 days between applications or severe crop injury may occur. Avoid contacting tomato foliage with spray. Use this method of treatment for use in fields with a history of severe weed pressure or in fields infested with hard-to-control weeds. For transplanted tomatoes, do not apply until transplants have recovered from transplant shock and new growth is evident. Do not apply to tomatoes within 24 hours of application of other pesticides. (See “Special Precautions” below.) When banding see the appropriate section in the front of this label.
*Use the higher rate in fields with a history of severe weed pressure and for maximum residual weed control.	

Restrictions (Tomatoes):

- Do not apply more than a total of 1.3 pounds A342.01 per crop season.
- Do not apply the total amount of 1.3 pounds A342.01 within a time span of less than 35 days, except in the case of directed sprays.
- Allow at least 14 days between applications, regardless of dosage or method of application or severe crop injury may occur.
- Pre-harvest Interval (PHI): Do not apply within 7 days of harvest.
- Aerial application is prohibited.
- Do not use air blast or other high pressure spray equipment to make postemergence applications of A342.01.
- **DO NOT USE A342.01 ON TOMATOES IN KERN COUNTY, CALIFORNIA.**

Precautions:

- Do not apply within 3 days after periods of cool, wet or cloudy weather, or crop injury will occur.
- Do not use hot caps on tomatoes within 7 days before or at any time after application of A342.01. Do not treat seeded tomatoes until plants have reached the 5- to 6-leaf stage or severe crop injury may occur.
- Crop injury or delayed maturity may result from broadcast or directed spray applications if tomatoes are growing under stress conditions such as periods of drought or cool, wet and cloudy weather preceding application.

- For newly introduced tomato varieties with unknown tolerance to A342.01, treat only a small area to determine if A342.01 can be used without injury to crop.

CEREALS

(Spring and Winter Barley and Winter Wheat)

A342.01 herbicide may be used for control or suppression of certain grasses and broadleaf weeds when applied postemergence to spring and winter barley or winter wheat. A342.01 alone and several tank mixture treatments are recommended for use in the following states: Arkansas, Georgia, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Montana, Nevada, Ohio, Oklahoma, Oregon, Tennessee, Texas, Utah, Washington.

Mixing: See the “Product Information” section of this label for specific mixing procedures. When tank mixing, carefully follow the instructions on this label. Refer to the other product labels registered for use in barley and winter wheat for additional use directions, rates, weeds controlled and restrictions.

Application: A342.01 may be applied by aerial or ground application equipment. Use a minimum spray volume of 2.0 gpa by air and 10.0 gpa by ground. Uniform spray coverage is necessary to obtain optimum weed control and to minimize potential for crop injury. Do not exceed rates specified on this label. Do not apply A342.01 through any type of irrigation equipment. Apply A342.01 when the crop is healthy and actively growing. A342.01 may be applied more than once per crop season. Allow a minimum of 21 days between applications if wheat is actively growing or allow 45 days between applications if wheat is growing in adverse conditions, has entered dormancy or is stressed due to frost damage, drought or excessive moisture. Do not use on soils containing less than 0.75% organic matter. Do not apply more than a total of 10.66 ounces A342.01 (8.0 ounces active ingredient) per acre per year. On irrigated cereals, do not apply more than 0.5 inch of water for the first irrigation, the maximum amount for each additional irrigation must not exceed 1 inch. Allow a minimum of 14 days between the first irrigation and subsequent irrigations.

Performance Factors: Weed control may not be observed for 2 to 4 weeks under normal growth conditions and for 4 to 6 weeks under very dry conditions. Moisture (at least ½ inch) is required within 2 to 3 weeks after application to move A342.01 into the weed root zone. Lack of adequate moisture after application may result in poor or erratic weed control. Control or suppression of listed weeds is dependent on weed size at time of application. Control or suppression may be reduced if broadleaf weeds are taller than 1 inch or grasses have more than 2 leaves.

Tank Mixtures: A342.01 may be tank mixed with metsulfuron methyl, triasulfuron, chlorsulfuron + metsulfuron, Chlorsulfuron, thifensulfuron-methyl + tribenuron methyl, 2,4-D, MCPA, dicamba, or bromoxynil herbicides. A nonionic surfactant containing at least 80% active ingredient may be used in A342.01 tank mixes with sulfonylurea herbicides (metsulfuron methyl, trisulfuron, chlorsulfuron + metsulfuron, Chlorsulfuron and thifensulfuron-methyl + tribenuron methyl). Do not use a crop oil concentrate or any adjuvant containing vegetable or petroleum oils with any A342.01 mix as crop injury may result. Additional pesticides may also be tank mixed with A342.01 unless specifically prohibited on the mix products' label. In some instances, combinations with organophosphate insecticides may cause temporary leaf yellowing and/or crop injury, especially when widely fluctuating day/night temperatures occur near application. Always refer to the other product labels registered for use on cereals for additional directions, rates and weed species controlled. Observe all precautions and limitations on labeling of all products used in mixtures.

Restrictions (Cereals):

- Pre-harvest Interval (PHI): Do not graze wheat within 14 days of A342.01 application or harvest grain within 21 days after last application.
- Do not graze or harvest barley before crop maturity.

- For tank mix combinations, follow the most restrictive label.
- Do not exceed rates specified on this label.
- Do not apply A342.01 through any type of irrigation equipment.
- Do not apply more than a total of 10.66 ounces of A342.01 (8.0 ounces active ingredient) per acre per year.

Precautions: Cereal Injury - Crop injury may occur if A342.01 is applied:

- When the crop is under stress such as winter kill, frost damage, disease, drought or excessive moisture, severe grazing, or when these conditions follow the application.
- In combination with fluid fertilizer especially with the addition of surfactant.
- Prior to the growth stage specified on this label.
- To soils high in lime or sodium, a pH greater than 7.7, calcareous, gravelly, thinly covered or exposed subsoil areas.
- To fields where cereal seeds have been planted less than 1 inch deep.
- To a non-winter hardy wheat or barley variety as listed below.
- To a sensitive wheat or barley variety as listed below.
- To frozen soil or crop still in winter dormancy.

Cereal Rotations Following Potatoes Treated with A342.01: If planting a sensitive cereal variety (listed under the wheat and barley variety tolerance portion of this label), following potatoes treated with A342.01 or metribuzin containing products, refer to the potato section of the A342.01 label for special cultural practices to follow.

Application:

A342.01 alone or in a tank mix with labeled broadleaf herbicides may be applied by aerial or ground spray equipment as a broadcast postemergence spray.

Postemergence Broadcast Applications of A342.01			
A342.01 Rate (Oz/A) % Organic Matter			
Crop Growth Stage	Soil Texture	0.75 to 2.0	Over 2.0
2-Leaf to 2-Tiller	Coarse	1.0 to 2.0	1.0 to 3.0
	Medium	1.0 to 3.0	2.0 to 3.0
	Fine	2.0 to 3.0	2.0 to 4.0
	Use these rates on crops with secondary roots smaller than 1 inch. For dryland winter wheat (non-irrigated), apply the highest labeled rate to achieve maximum weed suppression/control.		
3-Tiller to 4-Tiller	Coarse	3.0 to 4.0	4.0 to 5.0
	Medium	4.0 to 5.0	5.0 to 6.0
	Fine	5.0 to 6.0	5.0 to 6.0
	Do not apply within 2 weeks after grazing or breaking of winter dormancy. Apply after the crop is at or beyond the 3-tiller growth stage but before jointing. Secondary roots should be developed and larger than 1 inch long. Do not apply before 75 days after planting. For dryland winter wheat (non-irrigated), apply the highest labeled rate to achieve maximum weed suppression/control. GEORGIA ONLY: Wheat must be planted before November 15 in Piedmont area and Northern part of the state, and before December 1 in the Coastal Plain area.		
Over 4 Tillers	Coarse	4.0 to 6.0	5.0 to 8.0
	Medium	4.0 to 8.0	5.0 to 8.0
	Fine	5.0 to 8.0	8.0 to 10.6

	<p>Do not apply within 2 weeks after grazing or breaking of winter dormancy. Apply after the crop is at or beyond the 3-tiller growth stage but before jointing. Secondary roots should be developed and larger than 1 inch long. Do not apply before 75 days after planting.</p> <p>For dryland winter wheat (non-irrigated), apply the highest labeled rate to achieve maximum weed suppression/control.</p> <p>GEORGIA ONLY: Wheat must be planted before November 15 in Piedmont area and Northern part of the state, and before December 1 in the Coastal Plain area.</p>
--	--

Wheat and Barley Varietal Tolerance*

Wheat and barley varieties vary in their tolerance to A342.01. Varieties below are tolerant to and are recommended for use with A342.01.

Winter Wheat: Abe, AgriPro Mason, AgriPro Shiloh, Arthur, AS 7846, AS 7853, Baker Seed 32, Barbie VI, Basin, Batum, Bayles, Becker, Bintee V, Buchshot DS 2368, Caldwell, Cardinal, Cashup, Centurk, Cherokee, Cheyenne, Clark, Coker 747, Coker 762, Coker 797, Coker 68-15, Coker 9134, Coker 9543, Coker 9904, Coker 9907, Daws, DB 553W, DB 562W, DB 580W, Delta King 502, Delta King 9027, Dixie 952, Doublecrop, Dusty, Dyna-Gro 426, Dynasty, Excel, Faro, FFR 525W, Florida 302, FS 432, FS 433, FS 435, Gains, Garst 64, Georgia 100, Genie V, Hatton, Hawk, Hill 81, Howell, Hunter, Hyak, Hyslop, Katie VI, Ky 16-2, Larned, Lewis 833, Lewjain, Lisa, Longhorn, Luke, Madsen, Magnum, Malcom, McDermid, McNair 1003, McNair 1813, Molly, Moro, Neely, Nelson, Newton, Norstar, Norwin, Nugaines, Oasis, Omega 78, Paha, Peck, Pike, PI 2157, PI 2180, PI 2510, PI 2545, PI 2548, PI 2550, PI 2552, PI 2555, PI 2566, PI 2571, PI 2580, PI 2684, Quantum 577, Redwin, Rocky, Saluda, Sawyer, SC 104, Siouxcand, Sprague, Southern Belle, Stacy, Stallion, Stephens, TAM W101, TAM 105, TE 877, TE 2548, TE SR204, Tiber, Tomahawk, TR 8555, TR 8557, TR 8768, Traveler, Tres, Tyee, Tyler, Verne, Victory, Wakefield, Wanser, Weston, Winalta, Wrangler.

Barley: Advance, Boyer, Clark, Compana, Hannchen, Hector, Hesk, Hudson, Lud, Luther, Kamiak, Klages, Olympic, Pirolina, Steptoe, and Triumph.

The following cereal varieties are sensitive to A342.01 and are not recommended for use:

Winter Wheat: AgriPro Clemens, AT 90W, AT 91W, Arapaho, Baker Seed 33, Century, Cimarron, Coker 833, Coker 916, Coker 983, Coker 9024, Coker 9105, Coker, 9323, Coker 9474, Coker 9663, Coker 9835, Coker 9766, Coker 9877, EK 102, EK 114, FFR 555, Florida 304, Freedom, FS 417, FS 423, FS 425, FS 430, Gore, Hazen, Hickory, Jackson, Julie III, KY 49-25, Linden, Madison, Mesa, Mustang, Pacer, PI XW 522, PI 2551, PI 2163, Pioneer 2691, Princeton 733, PSR W71, PSR 226, PSR 278, Rosen, Savannah, Sierra, TAM 107, TR 101, TR 1011, TR 8822, Triumph 64, Vona, Wings, Winridge, Yamhill.

Spring/Durum Wheat: Avoid use on spring wheat and Durum wheat varieties.

Barley: Glenn, Morex, Moravian 3, Larker, Summit, Bracken, Anheuser Busch B2601 and varieties with Morex parentage.

Varieties Not Listed: To avoid possible crop injury on any variety not mentioned in this label, contact a Atticus, LLC representative or herbicide expert for a variety recommendation prior to treatment or treat a small strip of unlisted variety with the specified A342.01 rate to ascertain crop tolerance before treating an entire field.

(Abbreviated names of vendors: AS (Agseco), AT (Agratech), DB (Diener Bros.), FS (Growmark FS), PI (Pioneer), PSR (Hybritech), SC (J.M. Schultz), TE (Terra), and TR (Terral).

Weeds Controlled

Used at specified rates, A342.01 will control many annual broadleaf weeds. Control is base when applied to young, actively growing weeds. Weeds controlled by A342.01 include:			
Bittercress Catchfly, conical (Sand) Catchweed (Madwort) Chickweed, common Chickweed, mousear Corncockle, dogfennel (Mayweed)	Evening primrose, Cutleaf Falseflax, Smallseed Fiddleneck, tarweed Filaree, redstem Geranium Carolina gromwell, spp. Henbit	Knotweed, prostrate Lambsquarters, common Lettuce, miners Mustard, Blue mustard, Wild Pennycress, field Pepperweed, Virginia Pigweed, spp.	Pineappleweed polemonium, annual (Jacob's ladder) Radish, wild Shepherd's-purse Speedwell, Ivyleaf Turnip, wild

Weeds Suppressed

A342.01 control of the following weeds varies from poor to excellent depending on time of application, stage of growth at application, temperatures and soil moisture conditions following treatment. For maximum effect of these weeds, apply the highest specified rate at the earliest growth stage timing for each particular soil type and organic matter. Suppression is a reduction in weed size and growth as compared to a non-treated area in the same field.

Broadleaves	
Buckwheat, wild* Buttercup, spp. Cowcockle Kochia* Lettuce, prickly	Mustard, tumble (Jim Hill)* Tansymustard Thistle, Russian Vetch, winter
Grasses	
Barley, hare (Wild) Barley, little Blackgrass Bluegrass, annual Bluegrass, bulbous Brome, downy* Brome, Japanese*	Brome, ripgut* Cheat* Foxtail, spp.* Oat, wild* Rescuegrass* Whitlowgrass, spring (Vernal) Windgrass

*Use the highest specified A342.01 rate for maximum weed suppression.

For Weed Control in a Wheat/Fallow/Wheat Rotation

(Idaho, Oregon, Utah and Washington Only)

A342.01 may be applied to provide weed control during the fallow period after wheat harvest or in the spring before winter wheat is planted. Winter wheat can be seeded 4 months (120 days) after spring application. Mechanical tillage or the application of a contact herbicide may be required to control weeds germinating prior to seeding of winter wheat. Best results will be obtained where straw and chaff are evenly distributed across the field.

For specified application information see the "Product Information" section in the front of this label.

Where weed growth is present at application time, A342.01 should be applied with paraquat or other contact herbicide. Refer to the other product label registered for additional directions, rates, and weed species controlled.

Weeds Controlled	
Broadleaves	
Chickweed, common (<i>Stellaria media</i>) Cowcockle (<i>Vaccaria pyramidata</i>) Henbit (<i>Lamium amplexicaule</i>) *Kochia (<i>Kochia scoparia</i>) Lambsquarters (<i>Chenopodium album</i>) Mustard, blue or purple (<i>Chorispora tenella</i>)	Mustard, treacle (<i>Eyrsimum repandum</i>) Mustard, wild (<i>Brassica kaber</i>) Pennycress, field (Fanweed) (<i>Thlaspi arvense</i>) Pigweeds (<i>Amaranthua</i> spp.) *Russian thistle (<i>Salsola iberica</i>) Sunflower (<i>Helianthus</i> spp.)

Mustard, Jim Hill (<i>Sisymbrium altissimum</i>) Mustard, tansy (<i>Descurainia pinnata</i>)	
Grasses	
Cheatgrass (<i>Bromus secalinus</i>) Downy brome (<i>Bromus tectorum</i>) *Foxtail, green (<i>Setaria viridis</i>)	*Wheat, volunteer (<i>Triticum</i> spp.) *Wild oats (<i>Avena fatua</i>)

***Note:** Since control of these weeds may be variable depending on moisture following application, the higher labeled rate should be used.

After Harvest Application (Fall Fallow): A342.01 may be applied to wheat stubble after harvest in the fall. Apply 0.6 to 0.83 pound per acre broadcast before weeds emerge. Use higher rate for longer weed control or for weeds designated as requiring the higher rate for control. Rainfall (1/2 inch or more) is necessary for herbicide activation.

Restrictions: Do not plant crops in treated areas for at least 10 months following fall applications.

A342.01 may be applied at 0.6 to 0.83 pound per acre as directed above for a fall application. If other vegetation is present at the time of application, use a contact herbicide.

Spring Application (Summer Fallow): A342.01 may be applied to wheat stubble in the spring. Apply 0.5 to 0.6 pound per acre broadcast before weeds emerge in the spring. Use higher rate for longer weed control or weeds designated as requiring higher rate for control. Rainfall (1/2 inch or more) is necessary for herbicide activation.

Restrictions: Do not graze treated fields.

Do not plant spring seeded cereals following fall applications fallow.

Where A342.01 was applied in the fall, do not apply A342.01 in the spring.

For Weed Control in a Fallow Rotation with Barley and Wheat

(Colorado, Kansas, Montana, Nebraska and Wyoming Only.)

A342.01 may be applied to provide weed control during the fallow period after wheat or barley harvest or in the spring before planting of winter wheat or barley. Mechanical tillage or the application of a contact herbicide may be required to control weeds germinating prior to seedling of winter wheat or barley.

For specific application information see the "Product Information" section in the front of this label.

Where weed growth is present at application time, A342.01 should be applied with paraquat, glyphosate, or other contact herbicide. Refer to the other product label registered for additional directions, rates, and weed species controlled. Do not plant crops in treated areas earlier than 10 months following Fall applications.

Weeds Controlled	
Broadleaves	
Chickweed, common (<i>Stellaria media</i>) Cowcockle (<i>Vaccaria pyramidata</i>) Henbit (<i>Lamium amplexicaule</i>) *Kochia (<i>Kochia scoparia</i>) Lambsquarters (<i>Chenopodium album</i>) Mustard, blue or purple (<i>Chorispora tenella</i>) Mustard, Jim Hill (<i>Sisymbrium altissimum</i>)	Mustard, tansy (<i>Descurainia pinnata</i>) Mustard, treacle (<i>Eysimum repandum</i>) Mustard, wild (<i>Brassica kaber</i>) Pennycress, field (Fanweed) (<i>Thlaspi arvense</i>) Pigweeds (<i>Amaranthus</i> spp.) Russian thistle (<i>Salsola iberica</i>) Sunflower (<i>Helianthus</i> spp.)
Grasses	
Cheatgrass (<i>Bromus secalinus</i>) Downy brome (<i>Bromus tectorum</i>) *Foxtail, green (<i>Setaria viridis</i>)	*Wheat, volunteer (<i>Triticum</i> spp.) *Wild oats (<i>Avena fatua</i>)

***Note:** Since control of these weeds may vary depending on moisture following application, use the higher rate specified below.

After Harvest Application (Fall Fallow): A342.01 may be applied to the stubble after harvest in the fall. Apply 0.83 to 1.0 pound per acre broadcast before weeds emerge. Use the higher rate for longer weed control or for weeds designated as requiring the higher rate for control. Rainfall (1/2 inch or more) is necessary for herbicide activation. Do not rotate any crop not listed on this label for 18 months following application.

Spring Application (Summer Fallow): A342.01 may be applied to the stubble in the Spring. Apply 0.5 to 0.6 pound per acre broadcast before weeds emerge in the spring. Use the higher rate for longer weed control or weeds designated as requiring the higher rate for control. Rainfall (1/2 inch or more) is necessary for herbicide activation. Wheat or barley can be seeded 120 days after spring application.

Restrictions: Do not graze treated fields.

Do not plant spring seeded cereals following fall applications for fallow.

Where A342.01 was applied in the fall, do not apply A342.01 in the spring.

Crop Rotation Directions		
Waiting Period After A342.01 Herbicide Application ¹		
4 Months	Alfalfa Asparagus Barley ² Corn Forage grasses Sainfoin	Soybeans Sugarcane Tomatoes Wheat ²
8 Months	Barley Lentils	Peas Wheat
12 Months	Potatoes	Rice ³
18 Months	Sugar beets Onions	And other root crops not listed on this label and all other crops not listed on this label.

Do not rotate any crop not listed on this label after application of A342.01 to sugarcane.

¹Cover crops for soil building or erosion control may be planted any time, but do not graze or harvest for food or feed. Stand reductions may occur in some areas.

²Following peas, lentils or soybeans.

³Do not rotate rice after any application to a primary crop greater than 1.0 pound active ingredient per acre of A342.01 per season.

**FOR USE ON BENTGRASS GROWN FOR SEED AND FOR WEED CONTROL IN ESTABLISHED¹
PERENNIAL GRASSES GROWN FOR SEED IN OREGON WEST OF THE CASCADE MOUNTAINS
AND IN CROOK, DESCHUTES AND WASCO COUNTIES.**

¹Established grasses are those which have been harvested at least once for seed or were planted 1 year or more prior to application.

For Weed Control in Established Perennial Bentgrass Grown for Seed

Weeds Controlled

When used as directed below, A342.01 will reduce competition from seedlings of annual Bromus species, Annual ryegrass, and Annual bluegrass. A342.01 will control Rattail fescue, Henbit, Ivyleaf speedwell, Chickweed, Mustards, and Shepherd's-purse.

Crop Tolerance: Crop tolerance is marginal and crop injury and yield reduction are possible. To minimize crop injury, apply when the crop is not under stress. Use of adjuvants will reduce crop tolerance. Making the application after 3 consecutive sunny days will reduce the potential for crop injury.

Crop	A342.01 Lb/A	Remarks
Bentgrass grown for seed	0.38 to 0.5	Apply A342.01 as a broadcast spray in at least 15.0 gal of spray solution/A when the volunteer grasses are in the 1- to 2-leaf growth stage following fall rainfall or irrigation and before active spring growth. Excessive crop injury and/or failure to control weeds may result if application is made after mid-February. Pre-harvest Interval (PHI): Allow at least 120 days between application and harvest for seed.

Application Restrictions:

- Do not apply more than once per year.
- Do not apply to a crop that is under stress, for example, from disease, severe insect damage, nutrient deficiency, cool to cold temperatures, or deficient or excessive moisture.
- Apply only to Colonial and Creeping bentgrass.
- Apply only to established bentgrass that is at least one year old and has been harvested for seed at least once.
- Do not tank mix with other herbicides.

Feeding Restrictions: Do not use the crop or crop residues as feed or livestock bedding for at least 28 days following the last application.

**FOR WEED CONTROL IN ESTABLISHED PERENNIAL
GRASSES GROWN FOR SEED**

Weeds Controlled

When used as directed below, A342.01 will reduce competition from volunteer seedlings of the indicated crop, annual Bromus species, Annual ryegrass, and Annual bluegrass. A342.01 will control Rattail fescue, Henbit, Hyleaf speedwell, Chickweed, Mustards, and Shepherd’s-purse. The addition of wetting agents containing crop oil may enhance control of the volunteer crop and grassy weeds. When adding wetting agents, follow the directions for use and specified rates on the wetting agent label.

A342.01 is compatible with most fertilizers, fungicides, and insecticides. A342.01 may be combined with other herbicides for enhanced weed control. Prior to tank mixing with another herbicide, refer to the Product Information section of this label.

Crop	A342.01 Lb/A	Remarks
Perennial ryegrass Tall fescue	0.3 to 0.75	Apply specified dosage as a broadcast spray in at least 15.0 gal of spray solution/A when the volunteer grasses are in the 1- to 2-leaf growth stage following fall rainfall or irrigation but prior to active spring growth.
Bluegrass Fine fescue Orchardgrass	0.3 to 0.5	Excessive crop injury and/or failure to control weeds may result if application is made after mid-February. Pre-harvest Interval (PHI): Allow at least 120 days between application and harvest.

Application Restrictions:

- Do not apply more than once per year.
- Do not apply A342.01 through any type of irrigation system.

- Crop and crop residues may be fed to livestock or used as bedding. If the seed crop is terminated and grazed or cut for forage, allow at least 28 days between application and use as animal feed.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Handle and open container in a manner as to prevent spillage. If the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Dispose of pesticide as directed above. In spill or leak incidents, keep unauthorized people away.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment, then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.

Conditions of Sale and Limitation of Warranty and Liability

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials, resistant strains or other influencing factors in the use of the product, which are beyond the control of Atticus, LLC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Atticus, LLC and Seller harmless for any claims relating to such factors.

To the extent allowed by applicable laws, Atticus, LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of the product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Atticus, LLC and Buyer and User assume the risk of any such use. TO THE EXTENT ALLOWABLE BY APPLICABLE LAW, ATTICUS, LLC MAKES NO WARRANTIES OR MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent allowed by applicable laws, in no event shall Atticus, LLC or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT ALLOWABLE BY APPLICABLE LAW THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ATTICUS, LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ATTICUS, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

Atticus, LLC and Seller offer this product, and Buyer and User accept it, subject to foregoing conditions of sale and limitations or warranty and of liability, which may not be modified except by written agreement signed by a duly authorized representative of Atticus, LLC.

{LANGUAGE ON LABEL AFFIXED TO CONTAINER}

A342.01

Dry Flowable Herbicide

ACTIVE INGREDIENT:

Metribuzin, 4-Amino-6- (1,1-dimethylethyl)-3-(methylthio)-1,2,4-triazin-5 (4H)-one75.00%

OTHER INGREDIENTS:25.00%

TOTAL:100.00%

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

FIRST AID	
If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes:	<ul style="list-style-type: none"> • 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:	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15 to 20 minutes. • Call a poison control center or doctor for treatment advice.
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For emergency medical assistance, call SafetyCall: 1-844-685-9173 . For chemical emergency: spill, leak, fire, exposure or accident, call CHEMTREC: 1-800-424-9300 .	

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC
ANIMALS
CAUTION**

Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes or

clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in a cool dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed. Store in original container and out of the reach of children, preferably in a locked storage area. Handle and open container in a manner as to prevent spillage. If the container is leaking or material spilled for any reason or cause, carefully sweep material into a pile. Refer to Precautionary Statements on label for hazards associated with the handling of this material. Do not walk through spilled material. Dispose of pesticide as directed above. In spill or leak incidents, keep unauthorized people away.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment, then offer for recycling if available or dispose of empty bag in a sanitary landfill or by incineration. Do not burn, unless allowed by state and local ordinances.

For help with any spill, leak, fire or exposure involving this material, call day or night CHEMTREC – 1-800-424-9300.

See label booklet for additional Precautionary Statements and Directions for Use.

EPA Reg. No. 91234-57

EPA Est. No.

Manufactured for:

Atticus, LLC
5000 CentreGreen Way, Suite 100
Cary, NC 27513

NET WEIGHT: