OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

WASHINGTON, D.C. 20460

February 06, 2026

Cristina Rodriguez
cristina.rodriguez@fmc.com
FMC CORPORATION

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment – to add Post Emergence Fertilizer Impregnation Application, Update Crop Rotations Table , Update table 6 to better explain the early preplant, Update use on corn to V8 growth stage, Increase cotton rate of post emergence-early hooded/shielded sprayer and lay-by directed spray, Add cotton postemergence application via impregnation on dry bulk fertilizer, Updated Application Timings Section, Update dormant application rates, Update preemergence application for new seeding rates, Add Triticale, Plus other minor changes to correct typos and formatting.
Product Name: F9312-3
Admin Number: 279-3464
EPA Receipt Date: 08/25/2025
Action Case Number: 00666320

Dear Cristina Rodriguez:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

The supplemental labeling contains some new and/or revised uses and/or directions that may be additional to the uses and/or directions found on the label on or attached to the container, but the supplemental labeling does not by itself constitute the complete set of use directions. The complete set of use directions is set forth on the container label as combined with the supplemental labeling.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this 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.

Should you wish to add/retain a reference to your company’s website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by EPA. If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful

under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the 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. Therefore, should the EPA find or if it is brought to our attention that a website contains statements or claims substantially differing from statements or claims made in connection with obtaining a FIFRA section 3 registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.
If you have questions, please contact Celeste Bollini by telephone at (202) 564-2255 or via email at bollini.celeste@epa.gov.

Sincerely,

Kable Bo Davis

Kable Bo Davis, Senior Advisor
FHB, RD
Office of Pesticide Programs

Pyroxasulfone	**Group**	**15**	**Herbicide**
Carfentrazone-ethyl	**Group**	**14**	**Herbicide**

F9312-3

For preemergence and postemergence weed control in select crops and fallow.

EPA Reg. No. 279-3464 **EPA Est. _____**

ACTIVE INGREDIENTS:	**By Wt.**
Pyroxasulfone	3 7.10%
Carfentrazone-ethyl	2.65%
Other Ingredients	6 0.25%
Total:	1 00.0%

F9312-3 is a suspoemulsion containing 4.00 lbs ai/gal (containing 3.733 lbs ai of pyroxasulfone and 0.267 lbs ai of carfentrazone-ethyl).

KEEP OUT OF REACH OF CHILDREN

CAUTION/PRECAUCION

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

FIRST AID

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

If Swallowed: 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 the poison control center or doctor. **DO NOT** give anything by mouth to an unconscious person.

If in Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact 1-800-331-3148 for emergency medical treatment information.

Sold by:

FMC Corporation
2929 Walnut Street
Philadelphia, PA 19104
1-800-346-0833

Net Contents:_____

ATTENTION

Although this label may appear similar to the label on a product you may have used, there may be important label differences. Users must read, understand and strictly follow all label directions, precautions and restrictions.

It is the user's responsibility to be sure the product is approved for sale or use on the intended crop and for use in the specific geographic area.

It is the user's responsibility to be aware of and to follow all State or local precautions or restrictions not appearing on this product label. Prior to purchase or use of this product, read the Conditions of Sale and Limitation of Warranty and Liability on this label. If the terms and conditions are unacceptable, return the product immediately in the original and unopened container.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

Caution

Harmful if absorbed through skin. Harmful if swallowed. Causes moderate eye irritation. Avoid contact with skin, eye or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long sleeved shirt and long pants
- Chemical resistant gloves including barrier laminate, butyl rubber ≥ 14 mils, or viton ≥ 14 mils
- Shoes plus socks

For aerial applications, mixers and loaders must also wear:

- PF 0.5 respirator

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. DO NOT reuse them. 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.

User Safety Recommendations:

- Users must remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Users must 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

This pesticide is toxic to fish and algae, aquatic invertebrates, and to some plants at very low concentrations. **DO NOT** apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high-water mark. Drift and runoff from treated areas may be hazardous to terrestrial and aquatic plants in neighboring areas. **DO NOT** contaminate water when disposing of equipment wash waters or rinsate. **DO NOT** discharge effluent containing this active ingredient into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge**, DO NOT** discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

DO NOT use or store near heat or open flame.

Ground Water Advisory: This chemical and its degradation products have properties and characteristics associated with chemicals detected in ground water. This chemical may leach into ground water if used in areas where soils are permeable, particularly where the water table is shallow.

Surface Water Advisories: DO NOT apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high-water mark. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. **DO NOT** contaminate water when disposing of equipment wash waters or rinsate.

This product may impact surface water quality due to runoff of rainwater. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a high potential for reaching both surface water and aquatic sediment via runoff for several months or longer after application. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features including ponds, streams, and springs will reduce the potential loading of pyroxasulfone and its degradation product, (5- difluoromethoxy-1H-pyrazol-4-yl) methanesulfone acid (M1), from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours.

Fish Advisory Statement: This product may be hazardous to aquatic organisms, particularly in clear, shallow water bodies that are adjacent to treated areas. Transport to water by runoff or spray drift of this product in areas where surface water is present, or intertidal areas below the mean high-water mark, should be avoided. Do not contaminate water when disposing of equipment wash water or rinsate.

Non- Target Organism Advisory Statement: This product is toxic to plants and may adversely impact the forage and habitat of non-target organisms, including pollinators, in areas adjacent to the treated site. Protect the forage and habitat of non-target organisms by following label directions intended to minimize spray drift.

Point Source Contamination: To prevent point source contamination **DO NOT** mix or load this or any other pesticide within 50 feet of wells (including abandoned wells and drainage wells, sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs). This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or dike mixing/ loading areas as described below.

Mixing, loading, rinsing, or washing operations performed within 50 feet of a well are allowed only when conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be on or move across the pad. The pad must be self-contained to prevent surface water flow over or from the pad. The pad capacity must be maintained at 110% of that of the largest pesticide container or application equipment used on the pad and has sufficient capacity to contain all products spills, equipment or container leaks, equipment wash waters and rainwater that may fall on the pad. The containment capacity does not apply to vehicles delivering pesticides shipments to the mixing/ loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

Care must be taken when using this product to prevent back siphoning into wells, spills or improper disposal of excess pesticide, spray mixes, or rinsates. Check values or anti-siphoning devices must be used on all mixing equipment.

DIRECTIONS FOR USE

Endangered and Threatened Species Protection Requirements

Before using this product, you must obtain any applicable Endangered Species Protection Bulletins ('Bulletins') within six months prior to or on the day of application. To obtain Bulletins, go to Bulletins Live! Two (BLT) at https://www.epa.gov/pesticides/bulletins. When using this product, you must follow all directions and restrictions contained in any applicable Bulletin(s) for the area where you are applying the product, including any restrictions on application timing if applicable. It is a violation of Federal law to use this product in a manner inconsistent with its labeling, including this labeling instruction to follow all directions and restrictions contained in any applicable Bulletin(s). For general questions or technical help, call 1-844-447-3813, or email ESPP@epa.gov.

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

Read all Directions for Use carefully before applying.

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR WEED CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with any-thing that has been treated, such as plants, soil, or water, is: Coveralls, chemical resistant gloves such as barrier laminate, butyl rubber ≥ 14 mils, or viton ≥ 14 mils, and shoes plus socks.

WEED RESISTANCE MANAGEMENT

For resistance management, please note that F9312-3 Herbicide contains both a Group 14/Carfentrazone-ethyl and a Group 15/Pyroxasulfone herbicide. Any weed population may contain plants naturally resistant to Group 14 and/or Group 15 herbicides. The resistant individuals may dominate the weed population if these herbicides are used repeatedly in the same fields. Appropriate resistance-management strategies must be followed.

F9312-3 Herbicide contains pyroxasulfone which acts to inhibit very long-chain fatty acid synthesis as a Group 15 (WSSA)/ Group K3 (HRAC) herbicide. It is a root and shoot growth inhibitor that controls susceptible germinating seedlings before or soon after they emerge from the soil.

To delay herbicide resistance, take one or more of the following steps:

- Rotate the use of F9312-3 Herbicide or other Group 14 and/or Group 15 herbicides within a growing season sequence or among growing seasons with different herbicide groups that control the same weeds in a field.
- Use tank mixtures with herbicides from a different group if such use is permitted; where information on resistance in target weed species is available, use the less resistance-prone partner at a rate that will control the target weed(s) equally as well as the more resistanceprone partner. Consult your local extension service or certified crop advisor if you are unsure as to which active ingredient is currently less prone to resistance.
- Adopt an integrated weed-management program for herbicide use that includes scouting and uses historical information related to herbicide use and crop rotation, and that considers tillage (or other mechanical control methods), cultural (e.g., higher crop seeding rates; precision fertilizer application method and timing to favor the crop and not the weeds), biological (weed competitive crops or varieties) and other management practices.
- Scout after herbicide application to monitor weed populations for early signs of resistance development. Indicators of possible herbicide resistance include:
  1. failure to control a weed species normally controlled by the herbicide at the dose applied, especially if control is achieved on adjacent weeds;
  2. a spreading patch of non-controlled plants of a particular weed species;
  3. surviving plants mixed with controlled individuals of the same species. If resistance is suspected, prevent weed seed production in the affected area by an alternative herbicide from a different group or by a mechanical method including hoeing or tillage. Prevent movement of resistant weed seeds to other fields by cleaning harvesting and tillage equipment when moving between fields and planting clean seed.
- If a weed pest population continues to progress after treatment with this product, discontinue use of this product, and switch to another management strategy or herbicide with a different mode of action, if available.
- Contact your local extension specialist or certified crop advisors for additional pesticide resistance-management and/or integrated weedmanagement recommendations for specific crops and weed biotypes.
- For further information or to report suspected resistance, contact FMC Corporation.

PRODUCT INFORMATION

F9312-3 can be applied in all tillage systems (conventional, reduced and no-tillage). F9312-3 can be applied in the fall or in the spring as a preplant burndown, preplant incorporated, preemergence, or early post emergence treatment for susceptible grass and broadleaf weeds in registered crops. Residual herbicidal activity of F9312-3 may be reduced if residue on the soil surface from the previous crop covers more than 25% of the application area. Manage residue levels if needed with combine straw shredder/spreaders, earlier burndown of emerged weeds, or light tillage. Consult individual crop sections for specific use instructions for each crop.

Weed Size:

When applying F9312-3 alone for post emergent weed control, apply before the weeds have reached the maximum height listed in **Table 2**. Application after weeds have reached the listed maximum height for control could result in commercially unacceptable weed control. For control of weeds in post applications larger than listed in **Table 2** and for wider spectrum, apply in tank-mixture with herbicide(s) that are labeled for control of targeted weeds. Uniform spray coverage is necessary for optimum performance. Always read and follow label directions for all tank mix products before using.

Rainfall / Irrigation Requirements:

Moisture is necessary to activate the active ingredient pyroxasulfone in soil for weed control. Dry weather following applications of F9312-3 Herbicide may reduce the effectiveness. However, when adequate moisture is received after dry conditions, F9312-3 Herbicide will control susceptible germinating weeds. F9312-3 Herbicide may not control weeds that germinate after application but before an activating rainfall and/or irrigation of at least 0.5 inch, or weeds that germinate through cracks resulting from dry soil. When adequate moisture is not received after F9312-3 application, irrigation to aid in incorporation of the herbicide may improve residual weed control. If no rainfall occurs within 7 days after application, apply a minimum of 0.5-inch overhead irrigation if available. Refer to the crop specific information section for specific application rates, timings and the restrictions and limitations by crop and use pattern.

Application Precautions for Post Emergence Applications:

1. If applying F9312-3 post emergence, avoid applications when crop foliage is wet due to heavy dew, rain, or irrigation moisture. If F9312-3 is applied post emergence, shortly before or soon after a leaf wetting event, crop response can occur. Recovery from this response is rapid and normal growth is not delayed. Crop yields will not be impacted by this crop response.
2. Post emergence application may not be allowed on certain crops. See specific crop directions for use restrictions.
3. Observe all precautions and limitations on the label of each product used in tank mixture with F9312-3.

Restrictions

- Only use for sites, pests and application methods specified on this labeling.
- **DO NOT** use flood irrigation to apply, activate or incorporate this product.
- **DO NOT** apply to frozen or snow-covered ground.
- **DO NOT** use on peat or muck soils or mineral soils with 10% or more organic matter content.
- **DO NOT** apply if crop is under severe stress due to drought, cold weather, hail, flooding, water-logged or compacted soil, disease, insect damage, nutrient deficiency (especially low nitrogen levels), or other causes.
- **DO NOT** irrigate within 4 hours of a post emergence application of F9312-3. Rainfall or irrigation within 1 hour may wash F9312-3 off weed foliage and may reduce post emergence performance.
- **DO NOT** apply this product through any type of irrigation system.

Proper Handling Instructions:

This product may not be mixed or loaded within 50 feet of any wells (including abandoned wells and drainage wells), sink holes, perennial or intermittent streams and rivers, and natural or impounded lakes and reservoirs. This setback does not apply to properly capped or plugged abandoned wells and does not apply to impervious pad or properly diked mixing/loading areas.

Operations that involve mixing, loading, rinsing, or washing of this product into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash water, and rainwater that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means the pad must be self-contained. The pad shall be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above specific minimum containment capacities **DO NOT** apply to vehicles when delivering pesticide shipments to the mixing/loading site. States may have in effect additional requirements regarding wellhead setbacks and operational containment.

This product must be used in a manner which will prevent back siphoning into wells, spills or improper disposal of excess pesticide, spray mixtures or rinsates.

MIXING AND LOADING INSTRUCTIONS

Mixing Instructions:

1. The spray equipment must be clean before using this product. If it is contaminated with other materials, mixing problems and/or clogging can occur and/or crop response can occur.
2. Prepare no more spray mixture than is needed for the immediate application. Applying the product immediately after preparation ensures that it is in suspension. If application is delayed, agitation to re-mix the products and checking for resuspension ensures proper blending.
3. Maintain maximum agitation throughout the spraying operation.
4. Flush the spray equipment thoroughly after each use and apply rinsate to an appropriate area.

Mixing Steps:

1. Add 1/4 -1/2 of the required amount of clean water and/or fertilizer to the spray or mixing tank.
2. While maintaining agitation, continue filling the spray tank. When the tank is 3/4 full, add any dry formulation tank mix partners and allow them to completely and uniformly disperse.
3. Add the required amount of F9312-3 to the spray tank while maintaining agitation. After the product has completely and uniformly dispersed into the tank mix, add any other liquid tank mix partners and allow them to completely and uniformly disperse.
4. Add the proper amount of spray adjuvant and continue agitation while adding the remaining water and/or fertilizer.
5. Complete filling the tank with clean water and/or fertilizer to maintain sufficient agitation at all times to ensure surface action until the mixture is uniform.
6. After use, thoroughly clean the sprayer according to this label (see Cleaning Spray Equipment) and any tank mix partner labels.

Mixing F9312-3 in Tank Mixtures with Other Herbicides and Fluid Fertilizers

F9312-3 is compatible with most commonly used herbicides, insecticides, fungicides, and spray adjuvants.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

F9312-3 can be used with commonly used clear fluid nitrogen fertilizers (e.g. 28% or 32% UAN). It is advised that a preliminary compatibility jar test be conducted using appropriate ratios of F9312-3 and fluid fertilizer. Prepare no more spray mixture than is needed for the immediate application. Applying the product immediately after preparation ensures that it is in suspension. If application is delayed, agitation to re-mix the products and checking for resuspension ensures proper blending.

Precaution: Applications of F9312-3 in combinations with fluid fertilizers is advised for preplant and preemergence applications only. Postemergence incrop applications of fluid fertilizers and fertilizer tank-mixes can result in significant crop response and must be avoided unless the grower is aware of the risks of this practice and accepts the risk of applying these tank mixtures to his crop.

Compatibility Test

Conduct a jar test before mixing to ensure F9312-3 compatibility with tank mix partners and adjuvants. The following test assumes a spray volume of 25 gallons per acre. For other spray volumes, make appropriate changes in the ingredient rates.

1. Add 1.0 pt. of water to each of 2 one-quart jars. Note: Use the same source of water and the other components in the compatibility test that will actually be tank mixed and applied. It is important that all components are mixed at a temperature similar to the temperature of those used for the actual application.
2. To one of the jars, add 1/4 tsp. or 1.2 milliliters of a compatibility agent approved for this use (1/4 tsp. is equivalent to 2 pt/100 gallons spray). Shake or stir gently to mix.
3. To both jars, add the appropriate amount of herbicide(s). If more than one herbicide is used, add them separately with dry herbicides first, flowables next and emulsifiable concentrates last. Finally, add the appropriate amount of any adjuvants that will be used. After each addition, shake or stir gently to thoroughly mix.
   (Dry Herbicides and Adjuvants: For each pound to be applied per acre, add 1.4 tsp. to each jar. Liquid Herbicides and Adjuvants: For each pint to be applied per acre, add 0.5 tsp. or 2.5 milliliters to each jar).
4. After adding all ingredients for the tank mixture, replace and tighten lids. Shake jars by inverting the mixture and then let stand for 15 to 30 minutes.
5. After waiting period, check jars for separation, precipitates, flakes, films on the side, gels or other signs of incompatibility. If mixtures separate but can be remixed, the mixture can be sprayed as long as good agitation is used.
6. If the mixtures are incompatible, then try these methods to overcome the problem. A) Make a slurry of dry pesticides in water before adding them to the tank B) Add more compatibility agent or increase the water volume of the mixture.
7. If tank mixtures are incompatible, then **DO NOT** spray the mixture. (Properly dispose of testing jars and any pesticide waste).

Spray adjuvants for burndown and post applications

An adjuvant or a product containing an adjuvant approved for use on intended crop may be used with F9312-3 to optimize performance and consistency.

Adjuvants

Use a spray adjuvant from one of these classes for optimum performance for burndown or post applications.

Non-ionic surfactant (NIS) - must have a minimum of 80% of the constituents effective as spray adjuvant at the rate of 1 quart/100 gallons of spray volume (concentration of 0.25%).

Crop Oil Concentrate (COC) or Methylated Seed oil (MSO) - petroleum or vegetable-based oil containing not less than 12% emulsifier. Use 1-2 pts. /A and the concentration must not exceed 2.5% volume/volume. COC/MSO may improve performance under dry conditions and low relative humidity.

Silicone-based surfactant - apply at a rate of 0.5 - 1 qt/100 gallons or a spray volume concentration of 0.125 - 0.25% or as specified on the adjuvant label.

In addition to an adjuvant, urea ammonium nitrate (UAN) at 1-2 qts/A or spray grade ammonium sulfate (AMS) at specified use rates may also be added to the spray solution.

Adjuvants for F9312-3 in Tank Mixtures with Other Herbicides

When tank mixing with other herbicides, use the adjuvant labeled for use with the tank mix partner. Follow all restrictions and precautions on the tank mix partner's label.

DRY FERTILIZER APPLICATION

F9312-3 may be impregnated or coated onto dry bulk granular fertilizer carriers for preplant surface, preplant incorporated and postemergence applications for soil residual control of weeds prior to emergence. Dry fertilizer applications will not control emerged weeds. Follow all F9312-3 label restrictions, instructions and precautions.

All individual state regulations relating to dry granular fertilizer blending, registration, labeling and application are the responsibility of the individual and/or company selling the herbicide/fertilizer mixture.

Select the F9312-3 application rate per acre from this label and determine the quantity of dry bulk fertilizer to be applied per acre (use a minimum of 200 pounds and a maximum of 750 pounds per acre). Higher fertilizer application rates allow for better fertilizer/herbicide distribution and may provide more consistent control. Use the equation below to determine the amount of F9312-3 needed per ton of fertilizer applied.

(fl oz of F9312-3 per acre X 2000) / Pounds fertilizer per acre = oz of F9312-3 for 1 ton of fertilizer.

F9312-3 may be impregnated on many commonly used dry fertilizer but **DO NOT** impregnate on ammonium nitrate, fertilizers containing ammonium nitrate, potassium nitrate, sodium nitrate or powdered limestone.

To impregnate F9312-3 on bulk fertilizer, use a closed rotary drum mixer or other commonly used dry bulk fertilizer blender equipped with suitable spray equipment. Mix F9312-3 with sufficient water to form a sprayable slurry mixture. Direct spray nozzles to provide uniform fertilizer coverage while avoiding spray contact with mixing equipment. Non uniform impregnation can cause crop injury or unsatisfactory performance.

Spray the herbicide mixture onto the fertilizer after blending has started. If necessary, include a suitable drying agent to ensure a spreadable herbicide impregnated fertilizer. Apply treated fertilizer immediately after impregnation to avoid lump formulation and spreading difficulties. Accurate calibration of fertilizer application equipment and uniform fertilizer distribution is essential for satisfactory weed control. Apply the mixture uniformly to the soil with proper equipment immediately after blending and timely rainfall or irrigation is required for activation.

Ground Application

Use sufficient spray pressure and spray volume for accurate and uniform application. Refer to instructions for the spray equipment used to determine the actual minimum volume. The carrier may be either water or a sprayable fluid fertilizer. **DO NOT** apply this product without dilution in a spray carrier. For preplant, preplant incorporated, or preemergence applications, apply F9312-3 in a minimum of 5 gallons of water per acre or 10 or more gallons of sprayable fluid nitrogen fertilizer per treated acre. For postemergence applications where labeled for use in that crop or for preplant burndown applications, apply F9312-3 in a minimum of 10 gallons per acre of finished spray solution. If a dense crop and/or weed canopy is present, use up to 40 gallons of spray solution per acre.

Aerial Application

Use nozzle types and arrangements that will provide optimum coverage. Apply at a minimum of 3 gallons of finished spray per acre. Spray volumes greater than 3 GPA may be needed for dense weed populations or with dense crop canopies.

MANDATORY SPRAY DRIFT DIRECTIONS

Aerial Applications:

- For aerial applications the release height must be no higher than 10 ft from the top of the canopy, unless a greater application height is necessary for pilot safety.
- For aerial applications, select nozzle and pressure that produce medium to coarse spray droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard S572.1.
- For aerial applications, the distance of the outer most nozzles on the boom must not exceed 75% of the length of the wingspan or 90% of rotor diameter. To further reduce drift, use on half of the length of the wingspan or rotor diameter at the edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Applicators must only spray when wind speed is 10 miles per hour or less.
- Applicators must not spray during temperature inversions.

Ground Applications:

- For ground boom applications, apply with the nozzle height no more than 4 feet above the ground or crop canopy. For all other ground applications, the nozzle must be no more than 4 feet from the target vegetation.
- For ground applications, select nozzle and pressure that produce medium to coarse spray droplets as indicated in nozzle manufacturer's catalogues and in accordance with ASABE Standard S572.1.

Boom-less Ground Applications

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply when wind speeds exceed 10 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Spray Drift Advisories

AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR AND THE GROWER.

F9312-3 contains a contact protoporphyrinogen oxidase (PPO) inhibitor herbicide. Avoid any drift conditions that would allow the product to contact desirable vegetation. The mist from spray drift may cause injury to sensitive plants.

The interaction of 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 movement from applications to agricultural field crops. These requirements do not apply to forestry applications, public health use, or to applications of dry materials where states have more stringent regulations, they must be observed.

Importance Of Droplet Size

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide thorough coverage of the target pest. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions. (See Wind, Temperature and Humidity, and Temperature Inversions).

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers.

For all non-aerial applications, wind speed must be measured adjacent to the application site, on the upwind side, immediately prior to application.

Controlling Droplet Size

Volume - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows usually produce larger droplets.

Pressure – Do not use pressures greater than that specified by the nozzle manufacturer. 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 – For aerial application, orient nozzles so that the spray is released parallel to the airstream. A parallel orientation results in larger droplets than other orientations and reduces air turbulence and the production of small droplets. Significant deflection from horizontal will reduce droplet size and increase drift potential.

Nozzle Type – Use a nozzle that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles. For aerial applications, solid stream nozzles oriented straight back produce the largest droplets and potentially the least drift.

Boom Length – For some aerial use patterns, reducing the effective boom length to less than ¾ of the wingspan or rotor length may further reduce drift without reducing swath width.

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

Swath Adjustment – Swath adjustment distance must increase, with increasing drift potential (higher wind, smaller drops, etc.).

Drift Reduction Technology (DRT) – The EPA Drift Reduction Technology (DRT) Program was developed to encourage the manufacture, marketing, and use of spray technologies scientifically verified to significantly reduce pesticide drift. The use of DRTs should result in significantly less pesticide from spray applications drifting and being deposited in areas not targeted by those applications, compared to spray technologies that do not meet the minimum DRT standard. EPA-verified drift reduction technologies (DRTs) and their ratings will be added to the following webpage as they become available: https://www.epa.gov/reducing-pesticide-drift/epa-verified-and-rated-drift-reduction-technologies

Wind – Drift potential is lowest between speeds of 3 to 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given wind speed. Applications shall be avoided below 3 mph due to variable wind direction and high inversion potential. Do not apply F9312-3 when wind speed exceeds 10 mph. NOTE: Local terrain can influence wind patterns. Every applicator shall 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 – Do not apply F9312-3 during a temperature inversion because the 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 following 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.

Shielded Sprayers – Shielding the boom or individual nozzles can reduce the effects of wind. However, it is the responsibility of the applicator to verify that the shields are preventing drift and not interfering with uniform deposition of the product.

Sensitive Areas – F9312-3 shall only be applied when the wind is blowing away from adjacent sensitive areas (e.g. residential areas, bodies of water, known habitats for threatened or endangered species and non-target crops).

CLEANING SPRAY EQUIPMENT

Many pesticides are very active at low rates, especially to sensitive crops. Residues left in mixing equipment, spray tanks, hoses, spray booms and nozzles can cause crop effects if they are not properly cleaned. As soon as possible after spraying F9312-3 and before using the sprayer equipment for any other applications, the sprayer equipment must be thoroughly cleaned using the following procedure. In addition, users must take appropriate steps to ensure proper equipment clean-out for any other products mixed with F9312-3 as required on the other product labels. More complete cleaning can be achieved if the spray system is cleaned immediately following the application.

1. Drain sprayer tank, hoses, spray boom and spray nozzles. Use a high-pressure detergent wash to remove physical sediment and residues from the inside of the sprayer tank and thoroughly rinse. Then, thoroughly flush sprayer hoses, spray boom and spray nozzles with a clean water rinse. Remove and clean spray tips and all filters and screens (tank, spray hose and spray tips) separately in the ammonia solution of Step 2.
2. Next, prepare a sprayer cleaning solution by adding three gallons of ammonia (containing at least 3% active) per 100 gallons of clean water or using a commercial tank cleaner. Prepare sufficient cleaning solution to allow the operation of the spray system for a minimum of 15 minutes to thoroughly flush hoses, spray boom and spray nozzles.
4. Convenient and thorough cleaning of the sprayer can be achieved if the ammonia solution or fresh water is left in the spray tank, hoses, spray booms and spray nozzles overnight or during storage.
5. Before using the sprayer, completely drain the sprayer system. Rinse the tank with clean water and flush through the hoses, spray boom, and spray nozzles with clean water.
6. Properly dispose of all cleaning solution and rinsate in accordance with Federal, State, and local regulations and guidelines.

DO NOT apply sprayer cleaning solutions or rinsate to sensitive crops.

DO NOT store the sprayer for any extended period of time with F9312-3 spray solution remaining in the tank, spray lines, spray boom plumbing, spray nozzles or strainers.

If the sprayer has been stored or idle, purge the spray boom and nozzles with clean water before beginning any application.

If small quantities of F9312-3 remain in inadequately cleaned mixing, loading and/or spray equipment, they may be released during subsequent applications potentially causing effects to certain crops and other vegetation. FMC accepts no liability for any effects due to inadequately cleaned equipment.

When F9312-3 has been tank mixed refer to the label of the product used previously, or tank mixed with F9312-3 for cleaning instructions.

WEEDS CONTROLLED

F9312-3 Alone

At the rates and timings listed, F9312-3 applied **early preplant, preplant-incorporated, preemergence and delayed preemergence** controls the weeds listed in **Table 1** when the product is used alone. F9312-3 can also control certain broadleaf weeds after they emerge **(Table 2).** Weeds larger than the size indicated in **Table 2** may only be partially controlled and may require a tank mix partner.

Table 1. Preplant/ Preemergence Weed Control

Annual Grasses Controlled	
Common Name	**Scientific Name**
Barley, little	*Hordeum pusillum*
Barnyardgrass	*Echinochloa crus-galli*
Bluegrass, annual	*Poa annua*
Canarygrass	*Phalaris canariensis*
Crabgrass, large	*Digitaria sanguinalis*
Crabgrass, smooth	*Digitaria ischaemum*
Fescue, rattail	*Vulpia myuros*
Foxtail, giant	*Setaria faberi*
Foxtail, green	*Setaria viridis*
Foxtail, yellow	*Setaria pumila*
Foxtail, bristly	*Setaria verticillata*
Goosegrass	*Eleusine indica*
Johnsongrass (seedling)	*Sorghum halepense*
Panicum, fall	*Panicum dichotomiflorum*
Rice, red	*Oryza sativa*
Ryegrass, Italian	*Lolium perenne L. ssp. multiflorum*
Ryegrass, rigid	*Lolium rigidum*

Ventenata	*Ventenata dubia*
Witchgrass	*Panicum capillare*
Annual Grasses Suppressed	
Barley, hare	*Hordeum murinum spp. leporinum*
Brome, downy*	*Bromus tectorum*
Brome, Japanese*	*Bromus japonicas*
Cheat*	*Bromus secalinus*
Cupgrass, Southwestern	*Eriochloa acuminate*
Cupgrass, woolly	*Eriochloa villosa*
Millet, wild proso	*Panicum miliaceum*
Oat, wild*	*Avena fatua*
Panicum, Texas	*Panicum texanum*
Sandbur, longspine	*Cenchrus longispinuss*
Shattercane	*Sorghum vulgare*
Signalgrass, broadleaf	*Brachiaria platyphylla*

*** These grass species are controlled when F9312-3 is used at 5.0 fl oz/A (0.146 lb ai/A of pyroxasulfone /0.010 lb ai/A of Carfentrazone-ethyl) or greater.**

Annual Broadleaves Controlled	
Common Name	**Scientific Name**
Amaranth, Palmer	*Amaranthus palmeri*
Amaranth, Powell	*Amaranthus powellii*
Bittercress, hairy	*Cardamine hirsuta*
Carpetweed	*Mollugo verticillata*
Cress, mouse-ear	*Arabidopsis thaliana*
Knawel	*Scleranthus annuus*
Pigweed, redroot	*Amaranthus retroflexus*
Pigweed, smooth	*Amaranthus hybridus*
Pigweed, tumble	*Amaranthus albus*
Purslane, common	*Portulaca oleracea*
Pusley, Florida	*Richardia scabra*
Sida, prickly (Teaweed)	*Sida spinosa*
Speedwell, Persian	*Veronica persica*
Waterhemp, common	*Amaranthus rudis*
Waterhemp, tall	*Amaranthus tuberculatus*
Annual Broadleaves Suppressed	

Buckwheat, wild	*Polygonum convolvulus*
Chickweed, common	*Stelleria media*
Chickweed, jagged	*Holosteum umbellatum*
Chickweed, mouseear	*Cerastium fontanum ssp. vulgare*
Deadnettle, purple	*Lamium purpureum*
Fleabane, hairy	*Conyza bonariensis*
Flixweed	*Descurainia sphia*
Groundsel, common	*Senecio media*
Henbit	*Lamium amplexicaule*
Horseweed (marestail)* **Emerging from seed. Not overwintering or emerged plants.*	*Conyza canadensis*
Kochia (including triazine and ALS resistant)	*Kochia scoparia*
Lambsquarters, common	*Chenopodium album*
Jimsonweed	*Datura stramonium*
Mayweed, chamomile	*Anthemis cotula*
Morningglory, ivyleaf	*Ipomoea hederacea*
Morningglory, pitted	*Ipomoea lacunosa*
Mustard, wild	*Sinapis arvensis*
Nightshade, black	*Solanum nigrum*
Nightshade, hairy	*Solanum physalifolium*
Nightshade, Eastern black	*Solanum ptycanthum*
Ragweed, common	*Ambrosia artemisiifolia*
Shepherd's-purse	*Capsella bursa-pastoris*
Spreading orach	*Atriplex subspicata*
Velvetleaf	*Abutilon threophrasti*
Sedges Suppressed	
Nutsedge, yellow	Cyperus esculentus

Weeds Controlled – Postemergence / Burndown

F9312-3 can provide control of certain broadleaf weeds that are emerged at the time of application for preplant, preemergence, early postemergence, or post directed applications.

Table 2.
When used as directed, F9312-3 will provide control of the listed weeds up to four (4) inches in height, or as specified.

Weeds Controlled* Common Names	F9312-3 fl oz/A (lb ai/A)
Lambsquarters, common (up to 3 inches tall)	**2.7- 9.12 (0.079 – 0.266 lb ai/A of pyroxasulfone/ 0.006 – 0.019 lb ai/A of Carfentrazone-ethyl)**
Morningglory, ivyleaf (up to 3 leaves)	
Morningglory, pitted (up to 3 leaves)	
Nightshade, Eastern black	
Pigweed, redroot	
Velvetleaf	
Waterhemp (up to 2 inches tall)	

* For labeled rates below 2.7 fl oz/A (0.079 lb ai/A of pyroxasulfone/0.006 lb ai/A of Carfentrazone-ethyl), only suppression of these weeds may occur. For control of emerged weeds, weeds larger than listed in **Table 2** and weeds not listed on the label a tankmix partner is required.

APPLICATION TIMINGS

Fall Applications for controlling weeds germinating in the fall or winter.
F9312-3 may be applied in the fall to control weeds in conventional, minimum tillage, or no-till production systems planted the following spring. This fall application program will typically need to be followed with a suitable at-plant preemergence or postemergence herbicide treatment to provide season long control of the complete target weed spectrum.

F9312-3 may be applied in the fall for crops that are to be planted the following year (for applications to winter wheat in the fall, see the wheat section of this label for specific instructions). For control of emerged weeds in the fall or broader weed spectrum use combinations with other herbicides like carfentrazone-ethyl, 2,4-D, dicamba, flumioxazin, metribuzin, glyphosate, paraquat or glufosinate. Follow all directions, restrictions and precautions on the EPA-approved label for each product in the tank mixture.

Use the highest rate within soil type. F9312-3 may be broadcast surface applied in the fall after crop harvest. Results may be improved with applications when soil temperatures at the 4-inch depth are sustained at less than 55º F and before the ground freezes to control weeds in minimum or no till fields planted the following spring.

RESTRICTIONS:

- **DO NOT** exceed 2-inch incorporation depth if tilled after application.
- **DO NOT** apply to frozen or snow-covered soil.

Preplant, preemergence and early preplant applications
F9312-3 may be applied prior to planting up to crop emergence. Cultivation or a labeled postemergence herbicide application may still be required under certain conditions for complete weed control.

If weeds are present at the time of application, use additional weed control methods including tank mixtures with an appropriate postemergence herbicide(s) to control emerged weeds and follow all label directions, rates, restrictions, and precautions on the tankmixture partner labeling.

Preplant incorporated (PPI) applications
For PPI applications of F9312-3 incorporate into the upper (1-2 inch) soil surface up to 14 days before planting. Deeper incorporation may increase the potential for crop injury and may also result in reduced weed control. Use appropriate equipment that provides uniform shallow incorporation, including a field cultivator, harrow, rolling cultivator or finishing disc.

Delayed preemergence surface application in wheat
Apply as a broadcast spray to the soil surface following wheat planting when 80 percent of germinated wheat seeds have a shoot of at least ½ inch long until wheat spiking.

Early Postemergence
F9312-3 can be applied broadcast early postemergence for post weed control and residual activity in some crops. See individual crop sections for further details. Activation by rainfall or irrigation is required prior to weed seedling emergence to provide soil residual weed control.

Post-directed applications in cotton
In cotton, apply F9312-3 from minimum of 6 inches to beginning bloom stage. The amount of F9312-3 to apply and the degree of weed control resulting from an F9312-3 application depends upon a variety of factors including weeds present, stage of growth of the weeds, environmental conditions, growing conditions and soil type.

Postemergence Fertilizer Impregnation

Applications of F9312-3 impregnated on dry fertilizer are allowed for broadcast applications preemergence and postemergence to the crop, but preemergence to target, labeled weeds. Apply a minimum of 200 lb/A dry fertilizer and check application to ensure uniform coverage. Refer to the DRY FERTILIZER APPLICATION section of the F9312-3 label for additional information.

Split applications in labeled crops
F9312-3 can be applied in sequential programs, but **DO NOT** exceed the maximum use rate per year. Where weeds are emerged, use appropriate tank mixtures for control of the weed species present. Refer to the retreatment interval in each crop section to determine the minimum retreatment interval for each labeled crop or application.

F9312-3 in Tank Mixtures in labeled crops
For enhanced control of emerged weeds use F9312-3 in combination with other labeled burndown herbicide products including carfentrazone-ethyl, 2,4D, dicamba, metribuzin, glyphosate, paraquat and glufosinate prior to planting. Follow all plant-back and rotational restrictions for F9312-3 and partner herbicides. **It is the pesticide user's responsibility to ensure that all products are registered for the intended use**. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixture. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

F9312-3Tank mixing F9312-3 with other postemergence herbicides may increase the speed of activity and provide control of the weeds listed in **Table 2**. F9312-3 may be tank-mixed with labeled insecticides for that crop and with labeled fungicides. Follow all directions, restrictions and precautions on the EPA-approved label for each product in the tank mixture and follow the most restrictive requirements of the products being mixed.

RATE SELECTION / SOIL TEXTURE

Unless a specific soil texture is mentioned, rate tables throughout this label refer to **Table 3** for soil texture groups: coarse, medium and fine. **Table 3** includes a complete listing of soil textures included in each of the soil texture grouping.

Table 3.

Coarse	Medium	Fine

Sand Loamy sand Sandy loam	Loam Silt loam Sandy clay loam Silt	Sandy clay Silty clay loam Silty clay Clay loam Clay

ROTATIONAL CROPS

Table 4.

Crop	F9312-3 Use Rate (fl oz/A)*				
	1.82	3.64	5.46	7.28	9.12
	Rotational Crop Interval (months after application)				
Alfalfa	10	10	10	10	10
Bean, edible dry	9	9	9	9	11
Beans, edible pod and succulent shelled	11	11	11	11	11
Bulb Onion	2	4	4	4	4
Canola (rapeseed)	12	12	15	18	18
Celery	0	0	0	0	4
Chickpea	0	0	0	4	4
Corn	0	0	0	0	0
Cotton	1	2	4	4	4
Edamame	0	0	0	4	4
Flax	2	4	6	8	8
Garlic	0	0	4	4	4
Grain Sorghum	6	6	10	12	12
Cool-season Grasses grown for seed*	11**	11**	18	18	18
Warm-season Grasses grown for seed	18	18	18	18	18
Green onion	4	6	8	12	12
Lentils	0	0	0	4	4
Mint	4	4	4	4	4
Peanut	1	2	4	4	4
Peas, edible pod and succulent shelled	9	9	11	11	11
Peas, field (dry)	0	0	0	4	4
Potato	0	0	0	0	0
Rice	10	12	18	24	24
Safflower	0	0	0	2	4
Small Grains (other than wheat)	11	11	11	18	18
Soybean	0	0	0	4	4
Sugar beet	12	12	15	15	15
Sugarcane	4	4	4	4	18
Sunflower	0	0	0	2	4

Other group 20B crops	4	4	4	4	4
Sweet Potato	4	4	4	9	9
Tobacco	9	9	9	12	12
Wheat, Triticale	0	1	4	6	6
Other crops	18	18	18	18	18

NOTE: For rotational crop restrictions when F9312-3 is used in tank mixtures or sequentially with other products, refer to the rotation intervals on the other product label for possible additional restrictions.

For up to 12 months following application to cotton and potato, the subsequent planted crop may only be a registered crop of cafentrazone-ethyl.

*Only when grown in states of Idaho, Oregon, and Washington. For all other states, see rotational crop interval for “Other Crops”.

** An 11-month rotational crop interval only when greater than 15 inches of precipitation (rainfall/irrigation) has occurred from time of application to planting of grasses grown for seed. If less than 15 inches of precipitation has occurred, the rotational interval is 18 months.

ACTIVE INGREDIENT CONVERSION TABLE (FL OZ F9312-3 TO LB AI EQUIVALENT)

For the designated application rates of F9312-3 found in this label, refer to the table below for active ingredient equivalents.

Table 5.

F9312-3	ACTIVE INGREDIENT EQUIVALENT	
Rate (oz/A)	**Pyroxasulfone (Lb ai/A)**	**Carfentrazone-ethyl (Lb ai/A)**
1.36	0.040	0.003
1.82	0.053	0.004
2.0	0.058	0.004
2.25	0.066	0.005
2.5	0.073	0.005
2.7	0.079	0.006
2.73	0.080	0.006
2.75	0.080	0.006
2.8	0.082	0.006
3.0	0.087	0.006
3.25	0.095	0.007
3.5	0.102	0.007
3.65	0.106	0.008
3.8	0.111	0.008
4.0	0.117	0.008
4.55	0.133	0.009
5.0	0.146	0.010
5.25	0.153	0.011
5.46	0.159	0.011
5.5	0.160	0.011
6.0	0.175	0.013
6.4	0.187	0.013
7.3	0.213	0.015
7.6	0.222	0.016
9.12	0.266	0.019

CORN

FALL AND EARLY PREPLANT

Table 6.

F9312-3 application rates for fall or early preplant applications greater than 14 days ahead of planting in field corn (grown for grain, seed and silage).

	F9312-3 (fl oz/A) by Soil Texture

Fall and Early Preplant	Coarse	Medium	Fine
Greater than 15 days prior to planting	3.5 – 4.5	4.5 – 5.5	5.0 – 7.3

PREPLANT / PREEMERGENCE APPLICATION RATES

Table 7.

F9312-3 application rates for field corn (grown for grain, seed and silage) sweet corn and popcorn including sweet corn and popcorn grown for seed. Apply from 14 days preplant prior to spike stage corn.

	F9312-3 (fl oz/A) by Soil Texture		
Organic Matter	**Coarse** (excluding sweet corn)	**Medium** (excluding sweet corn at 2.0% O.M. or less)	**Fine**
Less than 1.0%	2.75 – 3.5	3.0 – 4.5	3.5 – 4.5
1.0% to 3.0%	3.0 – 4.0	3.5 – 5.5	4.5 – 6.0
Greater than 3%	4.0 – 5.0	4.5 – 5.5	5.5 – 7.3

- Use rates listed above are for control or suppression of weeds listed in **Table 1**.
- Before applying F9312-3 to sweet corn, popcorn, or seed corn, check with your local seed supplier to verify the selectivity on any inbred lines or hybrids to avoid any possible injury.
- For early preplant applications and/or in reduce tillage (i.e. no-till/ high residue) systems or heavy weed pressure use the higher labeled rate by the soil type.
- For preplant burndown of emerged weeds, tank mix another herbicide including 2,4-D, dicamba, glyphosate, atrazine or similar for increased levels of weed control.
- Corn seed must be planted a minimum of 1.5 inches deep. Shallow planting can lead to increased crop response risk.

For control/suppression of additional weed species or for increased control of troublesome weeds, F9312-3 may be used in combination with other labeled corn herbicides. Some example combinations include the following:

Product	**Weed species**
Isoxaflutole Mesotrione	Velvetleaf, Kochia, Lambsquarters, Common and Giant Ragweed, Pigweeds, Waterhemp, Pennsylvania smartweed, Nightshade.
Atrazine	Cocklebur, Giant and Common ragweeds, Nightshade, Kochia (non–triazine resistant) Morningglory, Pigweeds, Russian thistle, Lambsquarters,
Clopyralid + Flumetsulam	Cocklebur, Sunflower, Velvetleaf, Common and Giant Ragweed, Pennsylvania smartweed, Morningglory, Pigweeds, Lambsquarters

- Under heavy weed pressure, a sequential program of F9312-3 followed by an effective post emergence herbicide treatment or cultivation may be required for satisfactory weed control.

POSTEMERGENCE APPLICATION RATES

Table 8.

F9312-3 application rates for field corn (grown for grain, seed and silage), sweet corn and popcorn including sweet corn and popcorn grown for seed.

Use Rate F9312-3 Herbicide (fl oz/A) by Soil Texture		
Coarse (Excludes sweet corn)	**Medium Excludes sweet corn at 2.0% O.M. or less**	**Fine**
2.25 – 4.5	3.5 – 5.25	4.0 – 6.4

- Use rates listed above are for residual control on the weed control list (**Table 1**).
- Apply broadcast from emergence through V4 stage corn. From V4 to V8 stage apply only as directed row middle applications (drop nozzles, layby) avoiding spray deposition into the whorl.

- For heavy weed densities and longer residual use the higher labeled rate by the soil type.
- For improved performance, F9312-3 may be tank-mixed with other herbicides including atrazine, dicamba or other appropriate postemergence herbicides. Applications to weeds larger than specified in **Table 2** can result in unsatisfactory control.

Corn Use Rate Restrictions

- **On coarse texture soils -** ○ **DO NOT** apply more than 5.0 fl oz/A of F9312-3 (containing 0.146 lb ai of pyroxasulfone and 0.010 lb ai of carfentrazone-ethyl) in a single application per year.
  - ○ **DO NOT** apply more than 5.0 fl oz/A of F9312-3 (containing 0.146 lb ai of pyroxasulfone and 0.010 lb ai of carfentrazone-ethyl) per year. ○ **DO NOT** apply more than 0.146 lb ai of pyroxasulfone containing products per year. ○ **DO NOT** apply more than 0.031 lb ai of carfentrazone-ehyl containing products per year
- **On medium texture soils -** ○ **DO NOT** apply more than 5.5 fl oz/A of F9312-3 (containing 0.160 lb ai of pyroxasulfone and 0.011 lb ai of carfentrazone-ethyl) in a single application.
  - ○ **DO NOT** apply more than 9.12 fl oz/A of F9312-3 (containing 0.266 lb ai of pyroxasulfone and 0.019 lb ai of carfentrazone-ethyl) per year. ○ **DO NOT** apply more than 0.266 lb ai of pyroxasulfone containing products per year.
  - ○ **DO NOT** apply more than 0.031 lb ai of carfentrazone-ethyl containing products per year.
- **On fine texture soils -** ○ **DO NOT** apply more than 7.3 fl oz/A of F9312-3 (containing 0.213 lb ai of pyroxasulfone and 0.015 lb ai of carfentrazone) in a single application. ○ **DO NOT** apply more than 9.12 fl oz/A of F9312-3 (containing 0.266 lb ai of pyroxasulfone and 0.019 lb ai of carfentrazone-ethyl) per year. ○ **DO NOT** apply more than 0.266 lb ai of pyroxasulfone containing products per year.
  - ○ **DO NOT** apply more than 0.031 lb ai of carfentrazone-ethyl containing products per year.
- **DO NOT** apply F9312-3 Herbicide more than two times in corn per year when using at reduced rates.
- **DO NOT** apply F9312-3 Herbicide for sweet corn on coarse textured soils or on any medium soils with less than 2.0% organic matter.
- **Re-Treatment Interval (RTI): DO NOT** apply F9312-3 within 14 days of a previous application of F9312-3.
- **Pre Harvest Interval (PHI): DO NOT** apply within 3 days of harvest.

COTTON

APPLICATION RATES

Application rates for **F9312-3** when applied alone, in tank mix, or sequentially in cotton are provided in **Table 9.**

Table 9.

Residual Rates of F9312-3 in Cotton

Application Timing	Use Rate F9312-3 (fl oz/A) by Soil Texture[1]		
	Coarse[2]	Medium	Fine
Preplant Surface	1.36 – 1.82	1.82 – 2.73	2.73 – 3.8
Preplant Incorporated	1.36 – 1.82	1.82 – 2.73	2.73 – 3.8
Preemergence	1.36 – 1.82	1.82 – 2.73	2.73 – 3.8
Postemergence Early hooded/shielded sprayer. Lay-by directed spray	2.8 – 3.8	2.8 – 3.8	2.8 – 3.8
Postemergence via impregnation on dry bulk fertilizer	2.8 – 3.8	2.8 – 3.8	2.8 – 3.8

[1] Refer to **Table 3** for definitions of soil texture groups.

[2] **DO NOT** apply as a pre-plant or preemergent application on **Coarse** soils categorized as Sand or Loamy Sand.

Crop-Specific Restrictions

- **On coarse and medium texture soils -** ○ **DO NOT** apply more than 3.8 fl oz/A of F9312-3 (containing 0.111 lb ai of pyroxasulfone and 0.008 lb ai of carfentrazone) in a single application.
  - ○ **DO NOT** apply more than 5.46 fl oz/A of F9312-3 (containing 0.158 lb ai of pyroxasulfone and 0.012 lb ai of carfentrazone) per year.
- **On fine texture soils –** ○ **DO NOT** apply more than 3.8 fl oz/A of F9312-3 (containing 0.111 lb ai of pyroxasulfone and 0.008 lb ai of carfentrazone-ethyl) in a single application ○ **DO NOT** apply more than 7.6 fl oz/A of F9312-3 (containing 0.222 lb ai of pyroxasulfone and 0.016 lb ai of carfentrazone-ethyl) per year.
- **Postemergence Application (All Soil Textures)** ○ **DO NOT** apply more than 3.8 fl oz/A of F9312-3 (containing 0.111 lb ai of pyroxasulfone and 0.008 lb ai of carfentrazone-ethyl) in a single application.
  - ○ **DO NOT** apply more than 7.6 fl oz/A of F9312-3 (containing 0.222 lb ai of pyroxasulfone and 0.016 lb ai of carfentrazone-ethyl) per year.
- **DO NOT** apply more than 0.222 lb ai/A of pyroxasulfone containing products in a year.
- **DO NOT** apply more than 0.124 lb ai/A of carfentrazone-ethyl containing products in a year.
- **DO NOT** apply more than 2 applications per year to cotton when using at reduced rates.
- **Seedling Depth:** Crop seeds must be planted a minimum of 1 inch deep.
- **Re-Treatment Interval (RTI):** The minimum re-treatment interval is 14 days.
- **Pre-harvest Interval (PHI): DO NOT** harvest for a minimum of 7 days after the last application.
- **DO NOT** apply F9312-3 Herbicide directly to cotton as a broadcast postemergence liquid spray after emergence (at-cracking) or injury may occur.

Crop-Specific Instructions and Precautions

- Rainfall and/or irrigation totaling at least 0.5 inch prior to weed emergence is necessary for herbicide activation and optimum weed control. If no rain occurs within 7 days after application, apply overhead irrigation if available, at 0.5 to 0.75 inches. Use a maximum of 0.5 inch on coarse textured soils and a maximum of 1.0 inch on medium and fine textured soils.
- Excessive rainfall, irrigation, or prolonged cool and/or wet soil conditions after application of F9312-3 from seed germination through seedling emergence may increase the risk of cotton seedling injury and needs to be avoided if possible.
- Before applying to cotton, verification of F9312-3 selectivity on your variety must be confirmed to avoid injury to sensitive cotton varieties. Check with the local Cooperative Extension agent for information on potential F9312-3 varietal sensitivity. If variety sensitivity is unknown, including with new varieties, apply F9312-3 on a small area to confirm variety safety before use on large acreage.

APPLICATION TIMINGS

F9312-3 may be applied in a single application or in sequential applications.

Preplant Surface Or Preplant Incorporated Applications

(Up To 45 Days Prior To Planting)

Apply **F9312-3** at the use rates specified in **Table 9** as a broadcast or banded spray to the soil surface or incorporated up to 45 days before planting on all soil types.

Preemergence Surface Application

Apply **F9312-3** at use rates specified in **Table 9** as a broadcast or banded spray to the soil surface after planting and before crop emergence.

Postemergence Application

F9312-3 is primarily a soil residual herbicide for grasses and small seeded broadleaves with postemergence control of small, broadleaf weeds. **F9312-3** may be applied with a directed spray rig or via a hooded/shielded sprayer directing the spray solution to avoid contact with cotton foliage, green stem tissue, or blooms. **F9312-3** may be applied in tank mixture with other herbicides to broaden weed spectrum and efficacy. **F9312-3** may be impregnated onto dry fertilizer and broadcast over-the-top of cotton. For specific mixing instructions, refer to the Mixing and Loading Instructions under the PRODUCT INFORMATION section. For control of emerged weeds, weeds larger than listed in **Table 2**, or for weeds not covered on this label, a tank mix partner is required. Coverage is essential for good control. The use of an adjuvant is advised for consistent control.

Hooded/Shielded Spray Application

Early applications to cotton at 5 to 6 nodes or less must be made with hooded or shielded spray equipment to completely avoid contact with cotton plant tissue. Do not allow fine spray mist to escape the hooded/shielded sprayer. Choose pressure and nozzle combination that avoids fine spray mist.

Early Directed Spray Application

F9312-3 tank mix applications shall be made to cotton that is a minimum of 6 inches in height and has formed sufficient woody bark. Directed spray equipment must direct spray pattern beneath the crop canopy to contact woody stem tissue no more than 3 to 4 inches above the soil surface.

Lay-By Applications

F9312-3 and labeled tank mixtures may be made to cotton plants of 12 inches or more in height with sufficient bark development and height differential between crop bottom leaves and the soil. Spray solution shall be directed at the base of cotton plants to avoid contact with green stem tissue or foliage while maintaining maximum contact with broadleaf weeds that are at appropriate treatment size. **DO NOT** apply when conditions favoring drift exist or wind is above 10 mph.

Postemergence Fertilizer Impregnation

Applications of **F9312-3** impregnated on dry fertilizer are allowed for foliar, broadcast applications from the 2-leaf cotton stage until beginning bloom. Apply a minimum of 200 lb/A dry fertilizer and check application to ensure uniform coverage. Refer to the DRY FERTILIZER APPLICATION section of the **F93123** label for additional information.

Crop-Specific Post-Directed Precautions

Under high moisture conditions the crop may experience some temporary crop response. The crop will rapidly outgrow these effects and develop normally with no reduction in yield.

FALLOW APPLICATION

F9312-3 may be used as a residual treatment to control weeds listed at any time of the year during the fallow period following crop harvest and before the following crop is planted.

Follow all rotational crop and plant-back intervals listed on **Table 4**.

Apply **F9312-3** as a broadcast spray at 2.5 - 7.3 fl oz/A (containing 0.073 – 0.213 lb ai/A of pyroxasulfone and 0.005 – 0.015 lb ai/A of carfentrazone-ethyl)**.**

Crop-Specific Restrictions

- **DO NOT** apply more than 7.3 fl oz/A of F9312-3 (containing 0.213 ai/A of pyroxasulfone and 0.015 lb ai/A of carfentrazone-ethyl) in a single application.
- **DO NOT** apply more than 9.12 fl oz/A of F9312-3 (containing 0.266 lb ai/A of pyroxasulfone and 0.019 lb ai/A of carfentrazone-ethyl) per year.
- **DO NOT** apply more than 2 applications per year when using at reduced rates.

- **Re-Treatment Interval (RTI):** The minimum re-treatment interval is 30 days.

Tank Mixes
For control of emerged weeds, weeds larger than listed on **Table 2**, and weeds not listed on the label, a tank mix partner is required. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

FLAX

SPRING PREPLANT AND PREEMERGENCE APPLICATION RATES

Table 10.

F9312-3 application rates for Flax

	F93 2-3 (fl oz/A) by Soil Texture		
Organic Matter	**Coarse**	**Medium**	**Fine**
Less than 3%	1.82 – 9.12	2.75 – 9.12	2.75 – 9.12
Greater than 3%	1.82 – 9.12	2.75 – 9.12	4.0 – 9.12

- Use rates listed above are for control or suppression of weeds listed in **Table 1**.
- Applications may be made up to 30 days prior to planting on all soil types.
- For early preplant applications and reduced tillage (i.e. no-till/ high residue) systems use the higher labeled rate by the soil type.
- Ensure good seed furrow closure and soil coverage to avoid contact with F9312-3. Shallow planting and open seed furrow can lead to increased crop injury risk.
- Early preplant surface applications are not advised for coarse textured soils, in areas where annual rainfall (or rainfall plus irrigation) typically exceeds 40 inches.

For additional control of kochia, Russian thistle, common lambsquarters, nightshades, annual morningglories, Palmer amaranth and others, use preplant/preemergence tank mixes or sequential applications of sulfentrazone or carfentrazone-ethyl at their labeled use rate. A sequential application of a postemergence herbicide labeled for control of these broadleaf weeds may also be used for additional control during the growing season.

Crop-Specific Restrictions
- **DO NOT** apply more than 9.12 fl oz/A of F9312-3 (containing 0.266 lb ai/A of pyroxasulfone and 0.019 lb ai/A of Carfentrazone-ethyl) in a single application.
- **DO NOT** apply more than 9.12 fl oz/A of F9312-3 (containing 0.266 lb ai/A of pyroxasulfone and 0.019 lb ai/A of Carfentrazone-ethyl) per year. F93123 may be used prior to or after applications of other pyroxasulfone or carfentrazone-ethyl containing herbicides.
- **DO NOT** apply more than 3 applications per year of F9312-3 when using at reduced rates.
- When using F9312-3 in sequential programs, **DO NOT** exceed the maximum amount of either active ingredient per year for the soil textures as specified above.
- **Re-Treatment Interval:** The minimum re-treatment interval is 14 days.

Crop-Specific Precautions
- The use of F9312-3 may result in temporary suppression of growth in flax if extreme conditions including high rainfall and extended periods of watersaturated soil occur during sunflower germination or early seedling development.
- Prolonged periods of dry weather following applications of F9312-3 may reduce herbicide efficacy. If adequate rainfall is not received, weed emergence and escapes can occur. A post herbicide application may be needed to control these weed escapes.
- The activity of F9312-3 may be reduced if heavy trash is present on the soil surface covering more than 25-50% of the soil. To improve performance, manage trash levels with uniform spreading with combine or light tillage. Application rates at the higher side of the rate ranges may also improve performance in heavy trash situations.

MINT* (Peppermint and Spearmint)

*Mint (Peppermint and Spearmint tops) in this section includes peppermint and spearmint harvested for fresh mint leaves or for stems and leaves processed into mint oil.

F9312-3 may be applied as a dormant application to mint (peppermint and spearmint tops) for residual preemergence control of listed weeds (Table 1).

APPLICATION TIMING

F9312-3 may be applied in a single application at the dormant physiological stage of mint.

APPLICATION RATES IN MINT

Apply F9312-3 alone or in tank mix combination with another dormant use herbicide, or as a dormant application to mint followed by a labeled post emergence herbicide application at the residual rates per cropping season (per year) in **Table 11.**

Table 11.

Use rates of F9312-3 in Mint

Application Timing	Use Rate for F9312-3 (fl oz/A) by Soil Texture[1,2]

	Coarse	Medium	Fine
Dormant Application	3.5	3.5	3.5

[1]Refer to **Table 3** for definitions of soil texture groups
[2]Refer to **Table 5** for active ingredient use rate equivalents

Crop Specific Precautions
The use of F9312-3 may result in growth suppression of mint if extreme conditions of heavy rainfall and extended periods of water-saturated soil occur right before or soon after the mint breaks dormancy.

Crop Specific Restrictions
- **DO NOT** apply more than 3.5 fl oz/A of F9312-3 (containing 0.102 lb ai/A of pyroxasulfone and 0.007 lb ai/A of carfentrazone-ethyl) in a single application.
- **DO NOT** apply more than 3.5 fl oz/A of F9312-3 (containing 0.102 lb ai/A of pyroxasulfone and 0.007 lb ai/A of carfentrazone-ethyl) per year.
- **DO NOT** apply more than 0.266 lb ai/A of pyroxasulfone containing products in a year.
- **DO NOT** apply more than 0.03 lb ai/A of carfentrazone-ethyl containing products in a year.
- **DO NOT** apply more than once per year in mint.
- **DO NOT** apply if roots and rhizomes of mint are weak, thinned or damaged.
- **Pre harvest Interval (PHI):** 5 days.
- **DO NOT** use roots from F9312-3 treated plants for human consumption.
- **DO NOT** apply F9312-3 to newly planted mint. Apply only to stands that in the previous year were healthy and vigorous.
- **DO NOT** use F9312-3 between cuttings of mint.
- **DO NOT** apply F9312-3 to mint that has broken dormancy. Application to mint that is near dormancy break can result in crop injury. Risk of crop injury increases the closer application is to mint dormancy break.
- **DO NOT** apply to soils with less than 1% organic matter.
- **DO NOT** apply F9312-3 in soils classified as sand.

PEANUT

SPRING PREPLANT, PREPLANT INCORPORATED, PREEMERGENCE AND POSTEMERGENCE APPLICATION RATES

Table 12.

F9312-3 application rates for Peanuts

	Use rate for F9312-3 (fl oz/A) by Soil Texture		
Organic Matter	**Coarse**	**Medium**	**Fine**
Less than 3%	2.7 – 4.0	2.7 – 4.0	2.7 – 4.0
Greater than 3%	2.7 – 4.0	2.7 – 4.0	2.7 – 4.0

- Use rates listed above are for control or suppression of weeds listed in **Table 1**.
- Applications may be made up to 14 days prior to planting on all soil types.
- Preemergence applications must be made prior to peanut cracking or emergence to avoid potential crop response.
- Peanut seed must be planted a minimum of 1.0 inch deep. Shallow planting can lead to increased crop injury risk.
- Check with your local seed company before applying F9312-3 to peanuts, regarding the sensitivity of that variety to F9312-3 Herbicide to avoid potential injury.

POSTEMERGENCE APPLICATIONS
- F9312-3 may be applied postemergence to peanuts from at cracking to first leaf stage through beginning pod development.
- Apply broadcast over top of the crop or directed to soil surface. The use of an adjuvant is advised for consistent postemergence control.
- Postemergence applications of F9312-3 are for residual control of weeds emerging later. F9312-3 can provide some postemergence activity on small, newly emerging seedling broadleaf weeds listed in **Table 2**, but weeds larger than listed in **Table 2** or other emerged weeds will require a tank-mix partner for adequate control.
- F9312-3 may be applied with other peanut postemergence herbicides for improved weed control. When tank-mixing F9312-3 Herbicide with other products, follow the most restrictive precautions and instructions for all products used.

Crop-Specific Restrictions
- **DO NOT** apply more than 4.0 fl oz/A of F9312-3 (containing 0.117 lb ai/A of pyroxasulfone and 0.008 lb ai/A of carfentrazone-ethyl) in a single application.
- **DO NOT** apply more than 9.12 fl oz/A of F9312-3 (containing 0.266 lb ai/A of pyroxasulfone and 0.019 lb ai/A of carfentrazone-ethyl) per year.
- **DO NOT** apply F9312-3 more than 3 times per year when using at reduced rates.
- **Re-Treatment Interval (RTI):** The minimum re-treatment interval is 14 days.
- **Pre Harvest Interval (PHI):** Do not apply within 7 days of harvest.
- **DO NOT** apply more than 0.266 lb ai/A of pyroxasulfone containing products in a year.
- **DO NOT** apply more than 0.096 lb ai/A of carfentrazone-ethyl containing products in a year. F9312-3 may be used prior to or after applications of other pyroxasulfone or carfentrazone-ethyl containing herbicides.

Crop-Specific Precautions
- The use of F9312-3 may result in temporary suppression of growth in peanut if extreme conditions including high rainfall, cold temperatures and/or extended periods of water-saturated soil occur during peanut germination or early seedling development.

- Before applying to peanut, verify with your local seed company (supplier) the selectivity of F9312-3 on your variety to avoid potential crop injury.
- Prolonged periods of dry weather following applications of F9312-3 may reduce herbicide efficacy. If adequate rainfall is not received, weed emergence and escapes can occur. A postemergence herbicide may be needed to control these weed escapes. Under high moisture conditions and/or extremely cool environmental conditions, the crop may experience some temporary crop response. The crop will rapidly outgrow these effects and develop normally with no reduction in yield.

PEAS: DRY SHELLED, BLACKEYE, COWPEA, CROWDER, SOUTHERN, PEA (Pisum) (includes field pea and chickpea) PIGEON AND LENTILS.

FALL/SPRING PREPLANT AND PREEMERGENCE APPLICATION RATES

Table 13.

F9312-3 Application Rates:

	F93 2-3 (fl oz/A) by Soil Te cture		
Organic Matter	**Coarse**	**Medium**	**Fine**
Less than 3%	3.0 – 4.0	3.5 – 4.5	3.5 – 4.5
Greater than 3%	3.5 – 4.5	4.0 – 5.0	4.0 – 7.3

- Use rates listed above are for control or suppression of weeds listed in **Table 1**.
- For early preplant applications and reduced tillage (i.e. no-till/ high residue) systems use the higher labeled rate by the soil type.
- For additional burndown of emerged weeds, F9312-3 can be tank-mixed with other herbicides including glyphosate, glufosinate and other labeled herbicides.
- Spring preplant applications may be made up to 30 days prior to planting.
- Preemergence applications must be made prior to cracking or emergence to avoid potential crop response.
- Seed must be planted a minimum of 1.0 inches deep and ensure furrow is closed and there is good soil coverage. Shallow planting can lead to increased crop injury risk.
- F9312-3 may be applied as a preplant followed by a sequential preemergence application
- For additional control of kochia, Russian thistle, common lambsquarters, nightshades, annual morningglories, Palmer amaranth and others, use preplant/preemergence tank mixes at their labeled use rate. A sequential application of a postemergence herbicide labeled for control of broadleaf weeds may also be used to for additional control during the growing season.

Crop-Specific Restrictions

- **DO NOT** apply more than 7.3 fl oz/A of F9312-3 (containing 0.213 lb ai/A of pyroxasulfone and 0.015 lb ai/A of Carfentrazone-ethyl) in a single application.
- **DO NOT** apply more than 9.12 fl oz/A of F9312-3 (containing 0.266 lb ai/A of pyroxasulfone and 0.019 lb ai/A of carfentrazone-ethyl) per year.
- **DO NOT** apply F9312-3 Herbicide more than 3 times per year when using at reduced rates.
- **Pre Harvest Interval (PHI):** There is no required Pre Harvest Interval.
- **Re-Treatment Interval (RTI):** The minimum re-treatment interval is 14 days.
- **DO NOT** apply more than 0.266 lb ai/A of pyroxasulfone containing products in a year.
- **DO NOT** apply more than 0.096 lb ai/A of carfentrazone-ethyl containing products in a year. F9312-3 may be used prior to or after applications of other pyroxasulfone or carfentrazone-ethyl containing herbicides.
- Vegetable, foliage of legume, except soybean, subgroup 7A may be fed or grazed by livestock.

Crop-Specific Precautions

- The use of F9312-3 may result in temporary suppression of growth if extreme conditions including high rainfall and extended periods of water-saturated soil occur during dry/field peas, chickpeas, and lentils germination or early seedling development.
- Prolonged periods of dry weather following applications of F9312-3 may reduce herbicide efficacy. If adequate rainfall is not received, weed emergence and escapes can occur. A post herbicide may be needed to control these weed escapes.
- The activity of F9312-3 may be reduced if heavy trash is present on the soil surface covering more than 25-50% of the soil. To improve performance, manage trash levels with uniform spreading with combine or light tillage. Application rates at the higher side of the rate ranges may also improve performance in heavy trash situations.
- **DO NOT** apply Saflufenacil or any other saflufenacil containing product with, before, or after any F9312-3 application to lentils.

PERENNIAL GRASSES GROWN FOR SEED

For Use in Idaho, Oregon and Washington Only

F9312-3 may be applied to perennial grasses for seed (fine fescue, perennial ryegrass, tall fescue, and orchard grass), in the fall, or in spring planted (at least 8 tillers) and established stands for preemergence residual weed control of many annual grasses, volunteer sprouts, and winter annual broadleaf weeds listed in **Table 1**. Before applying to perennial grass for seed, verify with your local seed company (supplier) the selectivity of F9312-3 on your variety to avoid potential injury.

Application Rates in Perennial Grasses Grown for Seed

Apply F9312-3 alone, in tank mix or sequentially with other pesticides labeled on perennial grass grown for seed at the residual rates per cropping season (per year) in **Table 14**.

Table 14.

Use rates of F9312-3 in Perennial Grasses for Seed

Application Timing	Use Rate of F9312-3 (fl oz/A) by Soil Texture[1,2]		
	Coarse	Medium	Fine
Spring planted grass seed crops. (8 or more tillers per plant)	Do Not Use	2.75 - 3.65	3.65
Established grass seed crops. (at least one seed harvest)	Do Not Use	2.75 - 3.65	3.65
Preemergence application for new seeding (Seed row must have an activated carbon band above them)	Do Not Use	2.75 - 3.0	3.0

[1]Refer to **Table 3** for definitions of soil texture groups
[2]Refer to **Table 5** for active ingredient use rate equivalents

Crop-Specific Precautions
The use of F9312-3 may result in growth suppression or stand loss of perennial grasses for seed if extreme conditions of heavy rain and extended periods of water saturated soil occur during seedling growth.

Crop-Specific Restrictions
- **DO NOT** apply more than 3.65 fl oz/A of F9312-3 (containing 0.106 lb ai/A of pyroxasulfone and 0.008 lb ai/A of carfentrazone-ethyl) in listed perennial grasses grown for seed in a single application.
- **DO NOT** apply more than 3.65 fl oz/A of F9312-3 (containing 0.106 lb ai/A of pyroxasulfone and 0.008 lb ai/A of carfentrazone-ethyl) per year.
- **DO NOT** apply more than 0.106 lb ai/A of pyroxasulfone containing products in a year.
- **DO NOT** apply more than 0.093 lb ai/A of carfentrazone-ethyl containing products in a year. • **DO NOT** apply F9312-3 Herbicide more than one time per year
- **Preharvest Interval (PHI):** is 60 days.
- **Grazing restrictions:** 60 days
- **DO NOT** apply F9312-3 in soils classified as sand.

Crop-Specific Use Directions Application for spring planted grass seed crops
F9312-3 may be applied at the use rates specified in **Table 14** as a broadcast spray in the fall following a spring planting if the crop has attained a growth stage of at least 8 tillers and shows good health and vigor. Apply F9312-3 Herbicide prior to weed germination.

Applications for established grass seed crops (at least one harvest)
F9312-3 may be applied following seed harvest at use rates specified in **Table 14** as a broadcast spray to healthy, vigorous stands.

Applications for new plantings of grass seed crops: Carbon seeding
F9312-3 may be applied at 2.75 – 3.0 fl oz/A as a broadcast treatment over the seed rows that have activated carbon band above them. The activated carbon over the seed row will absorb the F9312-3 and allow the seed to germinate. Seed germination and stand safety is dependent on the quality of the carbon band above the seed. Apply carbon at 25 lb/A in a 1-inch band (equal to a 300 lb/A broadcast application) at planting. Apply to a smooth, crop residue-free seedbeds. Use proper agitation to keep the carbon in suspension. Mix activated carbon with water at 0.5 lb/gallon. This band may be compromised due to poor seed bed preparation, heavy rainfall, standing water, steep slopes and other possible disturbances allowing the herbicide to move into the seed row and inhibit crop germination. The grower utilizing this system assumes all risks of crop injury and/or stand loss associated with the application.

Tank Mixtures
It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

F9312-3 may be tank mixed or applied sequentially with the herbicide products registered for use in perennial grasses grown for seed for a broader spectrum of control and/or control of emerged weeds. Refer to the tank mix product labels to confirm that the respective tank mix products are registered for use in perennial grass grown for seed. Follow the adjuvant directions for F9312-3 .

POTATOES

F9312-3 may be applied preemergence for residual preemergence weed control. Use F9312-3 Herbicide as part of a weed management program in potatoes with other residual and Post herbicides for a broader spectrum of weeds.

Applications Rates in Potatoes

Apply F9312-3 alone, in tank mix combination, or sequentially at the rates provided in **Table 15**.

Table 15.
Use rates of F9312-3 in Potatoes

Application Timing	Use Rate of F9312-3 (fl oz/A) by Soil Texture[1,2]		
	Coarse	Medium	Fine
Preemergence	3.5	3.5 – 5.0	4.5 – 6.0

[1]Refer to **Table 3** for definitions of soil texture groups
[2]Refer to **Table 5** for active ingredient use rate equivalents

Crop Specific Precautions
The use of F9312-3 may result in growth suppression of potatoes if extreme conditions of heavy rain and extended periods of water saturated soil occur during potato emergence. Before using, verify the selectivity of F9312-3 Herbicide with your local county extension agent to avoid potential injury.

Crop Specific Restrictions
- **DO NOT** apply more than 6.0 fl oz/A of F9312-3 (containing 0.175 lb ai/A of pyroxasulfone and 0.013 lb ai/A of carfentrazone-ethyl) in a single application.
- **DO NOT** apply more than 9.12 fl oz/A of F9312-3 (containing 0.266 lb ai/A of pyroxasulfone and 0.019 lb ai/A of carfentrazone-ethyl) per year.
- **DO NOT** apply more than three applications of F9312-3 Herbiide to potatoes per year when using at reduced rates.
- **DO NOT** apply more than 0.266 lb ai/A pyroxasulfone containing products in a year.
- **DO NOT** apply more than 0.181 lb ai/A of carfentrazone-ethyl containing products in a year.
- **Pre Harvest Interval (PHI):** There is no required preharvest interval between a preemergence application of F9312-3 and the harvest of potatoes.
- **Re-Treatment Interval (RTI):** 14 days.
- **DO NOT** apply F9312-3 prior to planting potatoes.
- **DO NOT** apply to soils with less than 1% organic matter.

Preemergence Applications
Apply as a broadcast spray to the soil surface after planting or drag off of potatoes prior to weed emergence. F9312-3 may be applied after hilling. Apply prior to emergence of potatoes, ensuring that there is a minimum of 2 inches of soil covering the vegetative portion of the potato plants. Care must be taken that drag-off implements do not injure emerging shoots and they do not move soil off hills exposing plants to herbicide. Efficacy will be reduced if later cultural practices expose untreated soil.

F9312-3 may be tank mixed or applied sequentially with other herbicide products registered for use in potatoes for a broader spectrum of control and/or control of emerged weeds. Refer to the tank mix product labels to confirm that the respective tank mix products are registered for use in potatoes. Follow the adjuvant directions for F9312-3.

SOYBEAN

FALL AND SPRING EARLY PREPLANT APPLICATIONS GREATER THAN 14 DAYS AHEAD OF PLANTING IN SOYBEANS.

Table 16.

F9312-3 Application rates

	Use Rate for F9312-3 Herbicide (fl oz/A) by Soil Texture		
Fall and Early Preplant	**Coarse**	**Medium**	**Fine**
Greater than 15 days prior to planting	2.75 - 3.8	4.0 – 5.0	5.0 – 6.4

PREPLANT, PREPLANT INCORPORATED AND PREEMERGENCE APPLICATION RATES

Table 17.

F9312-3 Application rates

	Use Rate for F9312-3 (fl oz/A) by Soil Texture		
Organic Matter	**Coarse**	**Medium**	**Fine**
Less than 1%	2.25 – 2.75	2.75– 4.0	4.0 – 5.50
1 to 3%	2.25 – 3.8	2.75– 5.5	4.5 – 6.4
Greater than 3%	3.8	4.0 – 5.5	4.5 – 6.4

- Use rates listed above are for control or suppression of weeds listed in **Table 1**.
- For early preplant applications and reduced tillage (i.e. no-till/ high residue) systems use the higher side of labeled rate by the soil type.
- Preemergence applications must be made prior to soybean cracking and emergence to avoid potential crop injury response.
- Soybean seed must be planted a minimum of 1.0 inch deep and furrow is closed with good soil coverage. Shallow planting can lead to increased crop injury risk.
- Early preplant surface applications are not advised for coarse textured soils, in areas where annual rainfall (or rainfall plus irrigation) typically exceeds 40 inches.

For additional control of morningglory, common ragweed, Palmer amaranth and giant ragweed, velvetleaf, sunflower and others, use preplant/preemergence tank mixtures or sequential applications of other suitable herbicides at their labeled use rate. A sequential application of a postemergence herbicide labeled for control of these broadleaf weeds may also be used for additional control during the growing season.

Crop-Specific Restrictions
- **On coarse texture soils** - ○ **DO NOT** apply more than 3.8 fl oz/A of F9312-3 (containing 0.111 lb ai of pyroxasulfone and 0.008 lb ai of carfentrazone-ethyl) in a single application.

- **DO NOT** apply more than 3.8 fl oz/A of F9312-3 (containing 0.111 lb ai of pyroxasulfone and 0.008 lb ai of carfentrazone-ethyl) in a year.
  - **DO NOT** apply more than 0.111 lb ai of pyroxasulfone containing products in a year. - **DO NOT** apply more than 0.023 lb ai of carfentrazone-ethyl containing products in a year.

- **On medium texture soils -** - **DO NOT** apply more than 5.5 fl oz/A of F9312-3 (containing 0.160 lb ai of pyroxasulfone and 0.011 lb ai of carfentrazone-ethyl) in a single application.
  - **DO NOT** apply more than 6.4 fl oz/A of F9312-3 (containing 0.187 lb ai of pyroxasulfone and 0.013 lb ai of carfentrazone-ethyl) in a year.
  - **DO NOT** apply more than 0.187 lb ai of pyroxasulfone containing products in a year. - **DO NOT** apply more than 0.023 lb ai of carfentrazone-ethyl containing products in a year.

- **On fine texture soils -** - **DO NOT** apply more than 6.4 fl oz/A of F9312-3 (containing 0.187 lb ai of pyroxasulfone and 0.013 lb ai of carfentrazone-ethyl) in a single application.
  - **DO NOT** apply more than 6.4 fl oz/A of F9312-3 (containing 0.187 lb ai of pyroxasulfone and 0.013 lb ai of carfentrazone-ethyl) in a year.
  - **DO NOT** apply more than 0.187 lb ai of pyroxasulfone containing products in a year.
  - **DO NOT** apply more than 0.023 lb ai of carfentrazone-ethyl containing products in a year.
- **DO NOT** apply F9312-3 more than twice per year when using at reduced rates**.**
- **Re-Treatment Interval:** The minimum re-treatment interval is 14 days.
- F9312-3 Herbicide may be used prior to or after applications of other pyroxasulfone or carfentrazone-ethyl containing herbicides.

SUNFLOWERS (subgroup 20b)

FALL, SPRING PREPLANT, PREPLANT INCORPORATED AND PREEMERGENCE APPLICATION RATES

Table 18.

F9312-3 application rates for Sunflower (subgroup 20b)

	Use Rate for F9312-3 (fl oz/A) by Soil Texture		
Organic Matter	**Coarse**	**Medium**	**Fine**
Less than 3%	2 – 2.8	2.8 – 4.5	4.5 – 7.3
Greater than 3%	2.0 – 3.0	3.0 – 5.5	5.0 – 7.3

- Use rates listed above are for control or suppression of weeds listed in **Table 1**.
- For early preplant applications (15-45 days before planting) and reduced tillage (i.e. no-till/ high residue) systems use the higher labeled rate by the soil type.
- Preemergence applications must be made prior to sunflower cracking or emergence to avoid potential crop injury response.
- Sunflower seed must be planted a minimum of 1.0 inches deep and the seed furrow closed with good soil coverage of the seed. Shallow planting can lead to increased crop injury risk.
- Early preplant surface applications are not advised for coarse textured soils, in areas where annual rainfall (or rainfall plus irrigation) typically exceeds 40 inches.

For resistance management and additional control of kochia, Russian thistle, common lambsquarters, nightshades, annual morningglories, Palmer amaranth and other weeds, use preplant/preemergence tank mixtures or sequential applications of sulfentrazone, or carfentrazone-ethyl at their labeled use rate. A sequential application of a postemergence herbicide labeled for control of these broadleaf weeds may also be used to for additional control during the growing season.

Crop-Specific Restrictions

- **DO NOT** apply more than 7.3 fl oz/A of F9312-3 (containing 0.213 lb ai/A of pyroxasulfone and 0.015 lb ai/A of carfentrazone-ethyl) to sunflower (subgroup 20b) in a single application.
- **DO NOT** apply more than 9.12 fl oz/A of F9312-3 (0.266 lb ai/A of pyroxasulfone and 0.019 lb ai/A of carfentrazone-ethyl) per year.
- **DO NOT** apply F9312-3 more than three times per year when using at reduced rates.
- **Re-Treatment Interval (RTI):** The minimum re-treatment interval is 14 days.
- **DO NOT** apply more than 0.266 lb ai/A of pyroxasulfone containing products in a year.
- **DO NOT** apply more than 0.096 lb ai/A of carfentrazone-ethyl containing products in a year. F9312-3 may be used prior to or after applications of other pyroxasulfone or carfentrazone-ethyl containing herbicides.

Crop-Specific Precautions

- The use of F9312-3 may result in temporary suppression of growth in sunflower if extreme conditions including high rainfall and extended periods of water-saturated soil occur during sunflower germination or early seedling development.
- Prolonged periods of dry weather following applications of F9312-3 Herbicide may reduce herbicide efficacy. If adequate rainfall is not received, weed emergence and escapes can occur. A post herbicide may be needed to control these weed escapes.
- The activity of F9312-3 may be reduced if heavy trash is present on the soil surface covering more than 25-50% of the soil. To improve performance, manage trash levels with uniform spreading with combine or light tillage. Application rates at the higher side of the rate ranges may also improve performance in heavy trash situations.

WHEAT (Spring and Winter) *, TRITICALE

*(Spring and Winter Wheat except in WA, OR, ID and MT) See next section for use in WA, OR, ID, and MT.

Application Rates

Application rates for F9312-3 when applied alone, in tank mix, or sequentially are provided in **Table 19.**

Table 19.
Residual Rates of F9312-3 in Spring and Winter Wheat, Triticale

Application Timing	Use Rate of F9312-3 (fl oz/A) by Soil Texture[1]		
	Coarse	Medium	Fine
Delayed Preemergence	2.0 – 2.7	2.75 – 3.65	3.5 – 4.55
Early Postemergence	2.0 – 2.7	2.75 – 3.65	2.7 – 4.55

[1]Refer to **Table 3** for definitions of soil texture groups

Crop-Specific Restrictions • On coarse texture soils –
- **DO NOT** apply more than 2.7 fl oz/A of F9312-3 (containing 0.079 lb ai/A of pyroxasulfone and 0.006 lb ai/A of carfentrazone-ethyl) in a single application.
- **On medium texture soils –** ○ **DO NOT** apply more than 3.65 fl oz/A of F9312-3 (containing 0.107 lb ai/A of pyroxasulfone and 0.008 lb ai/A of carfentrazone-ethyl) in a single application.
- **On fine texture soils –** ○ **DO NOT** apply more than 4.55 fl oz/A of F9312-3 (containing 0.133 lb ai/A of pyroxasulfone and 0.009 lb ai/A of carfentrazone-ethyl) in a single application.
- **DO NOT** apply more than 4.55 fl oz/A of F9312-3 (containing 0.133 lb ai/A of pyroxasulfone and 0.009 lb ai/A of carfentrazone-ethyl) per year.
- **DO NOT** apply more than 0.133 lb ai/A of pyroxasulfone containing products in a year.
- **DO NOT** apply more than 0.031 lb ai/A of carfentrazone-ethyl containing products in a year.
- **DO NOT** apply more than twice per year when using at reduced rates.
- Re-Treatment Interval (RTI): The minimum re-treatment interval is 14 days.
- **DO NOT** apply to durum wheat.
- **DO NOT** apply preplant incorporated in wheat.
- **DO NOT** apply preplant, preemergence, or delayed preemergence to broadcast seeded wheat • **DO NOT** apply preemergence if ¼ inch. or more of rainfall is expected within 48 hours of application.
- **DO NOT** seed wheat deeper than 1.5 inches after a delayed preemergence application.
- **DO NOT** irrigate fields after a delayed preemergence application until wheat spikes.
- **DO NOT** harvest, feed, or graze within 7 days after application.

Specific Spring and Winter Wheat Use Instructions and Precautions
- Rainfall and/or irrigation totaling at least 0.5 inch prior to weed emergence may be necessary for herbicide activation and optimum weed control. If no rain occurs within 7 days after application, apply overhead irrigation if available, but not before wheat has reached spike stage. Use a maximum of 0.5 inch on coarse textured soils and a maximum of 1.0 inch on medium and fine textured soils.
- If heavy surface residues from the previous crop remain, reduced herbicidal performance may be observed.
- Excessive rainfall, irrigation, or prolonged wet and/or cold soil conditions after application of F9312-3 Herbicide from seed germination through seedling emergence may increase the risk of wheat seedling injury and needs to be avoided if possible.
- Before applying to wheat, verification of F9312-3 selectivity on your variety must be confirmed to avoid injury to sensitive wheat varieties. Check with the local Cooperative Extension agent for information on potential F9312-3 varietal sensitivity. If variety sensitivity is unknown, including with new varieties, apply F9312-3 on a small area to confirm variety safety before use on large acreage.

Crop Specific Use Directions:
F9312-3 Herbicide may be applied in a single application or in sequential applications.

DELAYED PREEMERGENCE APPLICATION

Apply F9312-3 at use rates specified in **Table 19** as a broadcast spray to the soil surface (uniform seedbed which is firm and free of clods) following wheat planting when 80 percent of germinated wheat seeds have a shoot at least ½ inch long until wheat spiking. The delayed preemergence application timing is normally reached in fall wheat planting in 48 to 72 hours after planting when wheat is drilled into adequate moisture to ensure immediate germination. Rainfall or irrigation of at least 0.5 inch prior to weed emergence is required for optimum herbicide activation and weed control. If rainfall or irrigation is not received within 7 days, weed control may be erratic.

EARLY POSTEMERGENCE APPLICATION

Apply F9312-3 at use rates specified in **Table 19** as a broadcast spray to wheat from spiking up to the 4th tiller growth stage. F9312-3 Herbicide will provide residual preemergence control of susceptible weeds after F9312-3 is activated by rainfall or irrigation. F9312-3 Herbicide may be applied sequentially or tank-mixed with a labeled postemergence herbicide(s) for control of emerged weeds or for broader spectrum. Read and follow the most restrictive tank-mix partner label prior to application. For optimum postemergence performance of small, emerged susceptible broadleaf weeds, apply F9312-3 Herbicide to actively growing weeds up to 2 inches tall and rosettes less than 2 inches across. Thorough coverage is essential for control. The use of an adjuvant is advised for consistent postemergence control.

Under high moisture conditions the crop may experience some temporary crop response. The crop will rapidly outgrow these effects and develop normally with no reduction in yield.

Fall Preplant Applications for Spring Wheat in ND and SD.

Application Rates
Use rates for F9312-3 when applied alone, in tank mix, or sequentially for applications made in the fall for spring wheat are provided in **Table 20. Table 20.**

Application Timing	Use Rate of F9312-3 (fl oz/A) by Soil Texture		
	Coarse	Medium	Fine
Fall Preplant	2.7	3.0 – 3.65	3.5 – 4.55

Specific Spring Wheat Use Instructions and Precautions

- Excessive rainfall, irrigation, or prolonged wet soil conditions after application of F9312-3 Herbicide from seed germination through seedling emergence may increase the risk of wheat seedling injury and needs to be avoided if possible.
- Before applying to wheat, verification of F9312-3 selectivity on your variety must be confirmed to avoid injury to sensitive wheat varieties.
- Check with the local Cooperative Extension agent for information on potential F9312-3 varietal sensitivity. If variety tolerance is unknown, including with new varieties, apply F9312-3 on a small area to confirm variety safety before use on large acreage.

Application Timings

F9312-3 may be applied in a single application or in sequential applications.

Fall Preplant Surface Application

Apply preplant in the fall only to soils with CEC greater than 15, pH less than 7.5 and with O.M. content greater than 2% to reduce the risk of crop response.

Sequential Applications

If a sequential application program of F9312-3 is used (e.g., Fall application followed by early postemergence application), the maximum combined rate of F9312-3 that may be applied in a year is 4.55 fl oz/A (0.142 lb ai/A containing 0.133 lb ai of pyroxasulfone and 0.009 lb ai of carfentrazone-ethyl).

Tank Mixtures

For control of emerged weeds, weeds larger than listed in **Table 2**, and weeds not listed on the label a tankmix partner is required. It is the pesticide user's responsibility to ensure all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixes. Users must follow the most restrictive directions for use and precautionary statements for each product in the tank mixture.

WHEAT (Spring and Winter), TRITICALE WA, OR, ID, MT and SD & ND west of Hwy 281.

Application Rates

Application rates for F9312-3 when applied alone, in tank mix, or sequentially are provided in **Table 21**.

Table 21.

Residual Rates of F9312-3 in Spring and Winter Wheat

Application Timing	Use Rate of F9312-3 (fl oz/A) by Soil Texture[1]		
	Coarse	Medium	Fine
Preplant Surface (less than 30 days before planting)	2.5 – 2.7	2.75 – 3.65	3.5 – 4.55
Preemergence	2.5 – 2.7	2.75 – 3.65	3.5 – 4.55
Delayed Preemergence	2.5 – 2.7	2.75 – 3.65	3.5 – 4.55
Early Postemergence	2.5 – 2.7	2.75 – 3.65	3.5 – 4.55

[1] Refer to **Table 3** for definitions of soil texture groups.

Crop-Specific Restrictions

- **On coarse texture soils –** ○ **DO NOT** apply more than 2.7 fl oz/A of F9312-3 (containing 0.079 lb ai/A of pyroxasulfone and 0.006 lb ai/A of carfentrazone-ethyl) in a single application.
- **On medium texture soils –** ○ **DO NOT** apply more than 3.65 fl oz/A of F9312-3 (containing 0.106 lb ai/A of pyroxasulfone and 0.008 lb ai/A of carfentrazone-ethyl) in a single application.
- **On fine texture soils –** ○ **DO NOT** apply more than 4.55 fl oz/A of F9312-3 (containing 0.133 lb ai/A of pyroxasulfone and 0.009 lb ai/A of carfentrazone-ethyl) in a single application.
- **DO NOT** apply more than 4.55 fl oz/A of F9312-3 (containing 0.133 lb ai/A of pyroxasulfone and 0.009 lb ai/A of carfentrazone-ethyl) per year.
- **DO NOT** apply more than 0.133 lb ai/A of pyroxasulfone containing products in a year.
- **DO NOT** apply more than 0.031 lb ai/A of carfentrazone-ethyl containing products in a year.
- **DO NOT** apply more than twice in wheat per year when using at reduced rates.
- **Re-Treatment Interval (RTI):** The minimum re-treatment interval is 14 days.
- **DO NOT** apply to durum wheat.
- **DO NOT** apply preplant incorporated in wheat.
- **DO NOT** apply preplant, preemergence, or delayed preemergence to broadcast seeded wheat.
- **DO NOT** apply preemergence if ¼ inch. or more of rain is expected within 48 hours of application.
- **DO NOT** seed wheat deeper than 1.5 inch. after a preplant application or before a preemergence or delayed preemergence application.
- **DO NOT** irrigate fields after a preemergence or delayed preemergence application until wheat spikes.

- **DO NOT** harvest for grain, feed, or graze within 7 days after application.

Specific Spring and Winter Wheat Use Instructions and Precautions

- Rainfall and/or irrigation totaling at least 0.5 inch prior to weed emergence may be necessary for herbicide activation and optimum weed control. If no rain occurs within 7 days after application, apply overhead irrigation if available. Use a maximum of 0.5 inch on coarse textured soils and a maximum of 1.0 inch on medium and fine textured soils.
- Excessive rainfall, irrigation, or prolonged wet soil conditions after application of F9312-3 from seed germination through seedling emergence may increase the risk of wheat seedling injury and needs to be avoided if possible.
- Before applying to wheat, verification of F9312-3 selectivity on your variety must be confirmed to avoid injury to sensitive wheat varieties. Check with the local Cooperative Extension agent for information on potential F9312-3 varietal sensitivity. If variety sensitivity is unknown, including with new varieties, apply F9312-3 on a small area to confirm variety safety before use on large acreage.

Crop-Specific Use Directions

F9312-3 may be applied in a single application or in sequential applications at the following crop specific application timings

Preplant Surface Applications

Apply F9312-3 at the use rates specified in **Table 21** as a broadcast spray to the soil surface no more than 30 days prior to planting on all soil types. If rainfall or irrigation is not received within 7 days, weed control may be erratic.

Apply preplant only to soils with a CEC greater than 15, pH less than 7.5 and with an OM greater than 2% to reduce the risk of crop response.

Preemergence Surface Application

Apply F9312-3 at use rates specified in **Table 21** after planting and before wheat spiking as a broadcast spray to the soil surface with uniform seedbed which is firm and free of clods. Rainfall or irrigation of at least 0.5 inch prior to weed emergence is required for optimum herbicide activation and weed control. If rainfall or irrigation is not received within 7 days, weed control may be erratic. Complete seed furrow closure and adequate soil coverage must occur to prevent seed contact with F9312-3.

Apply preemergent only to soils with a CEC greater than 15, pH less than 7.5 and with an OM greater than 2% to reduce the risk of crop response.

Delayed Preemergence Application

Apply F9312-3 at use rates specified in **Table 21** as a broadcast spray to the soil surface following wheat planting when 80 percent of germinated wheat seeds have a shoot at least ½ inch long until wheat spiking to the soil surface with uniform seedbed which is firm and free of clods. Rainfall or irrigation of at least 0.5 inch prior to weed emergence is required for optimum herbicide activation and weed control. If rainfall or irrigation is not received within 7 days, weed control may be erratic.

Early Postemergence Application

Apply F9312-3 at use rates specified in **Table 21** as a broadcast spray to wheat at spiking up to the 4th tiller growth stage. F9312-3 will provide residual preemergence control of susceptible weeds after F9312-3 is activated by rainfall or irrigation. F9312-3 may be tank-mixed or applied as a sequential application with a labeled postemergence herbicide(s) for control of emerged weeds. Read and follow the most restrictive tank-mix partner label prior to application. For optimum postemergence performance of small emerged susceptible broadleaf weeds, apply F9312-3 to actively growing weeds up to 2 inches tall and rosettes less than 2 inches across. Thorough coverage is essential for control. The use of an adjuvant is advised for consistent postemergence control.

Under high moisture conditions the crop may experience some temporary crop response. The crop will rapidly outgrow these effects and develop normally with no reduction in yield.

Tank Mixtures

For control of emerged weeds, weeds larger than listed in **Table 2** and weeds not listed on the label a tank mix partner is required. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

Sequential Applications

If a sequential application program of F9312-3 is used (e.g., preplant or preemergence application followed by early postemergence application), the maximum combined rate of F9312-3 that may be applied in a year is 4.55 fl oz/A (0.142 lb ai/A containing 0.133 lb ai of pyroxasulfone and 0.009 lb ai of carfentrazone-ethyl).

Replanting Instructions

If a labeled crop treated with F9312-3 is lost due to a natural catastrophe including hail or frost, cotton, wheat, corn, and soybeans can be replanted immediately, provided this is not restricted on the label of a product used previously or by a product applied in a tank mixture with F9312-3.

CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

Notice: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

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 beyond the control or FMC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and, to the extent consistent with applicable law, Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT.

Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and, to the extent permitted by applicable law, buyer assumes the risk of any such use.

To the extent consistent with applicable law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC 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 FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Condition of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement.

STORAGE AND DISPOSAL

DO NOT contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

Pesticide Storage

Store product in original container only, well ventilated area, separately from fertilizer, feed, or foodstuffs and away from other pesticides. **DO NOT** contaminate water, food, or feed by storage or disposal. Store in a cool dry place and avoid excess heat.

In Case of Spill

Avoid contact. Isolate areas and keep out animals and unprotected persons. Call CHEMTREC (Transportation and Spills): (800) 424-9300.

To Confine Spills.

Dike surrounding area; sweep up spillage, dispose of in accordance with information given under Pesticide Disposal. Wash spill area with water, absorb with sand, cat litter or commercial clay, sweep up and dispose of in an approved manner. Place damaged container in a large holding container. Identify contents per required hazardous waste labeling regulations.

Pesticide Disposal

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

Container Handling

Metal or Plastic Containers - Nonrefillable container. **DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: **(For containers greater than 5 gallons)** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

(For containers 5 gallons or less) Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities. **DO NOT** cut or weld metal containers. If burned, stay out of smoke.

Returnable/Refillable Containers - Refill this container with pesticide only. **DO NOT** reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

LABEL TRACKING INFORMATION

Label Code: D-4919 010526

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Supplemental Labeling

F9312-3

EPA Reg. No. 279-3464

This supplemental label expires on December 31st, 2030 and must not be used or distributed after this date.

DIRECTIONS FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING. ALL APPLICABLE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS ON THE EPA REGISTERED LABEL ARE TO BE FOLLOWED.

This Supplemental labeling must be in the possession of the user at the time of pesticide application. Read the label affixed to the container before applying. Carefully follow all precautionary statements and application use directions.

APPLICATION TIMINGS

Postemergence Fertilizer Impregnation

Applications of **F9312-3** impregnated on dry fertilizer are allowed for broadcast applications preemergence and postemergence to the crop, but preemergence to target, labeled weeds. Apply a minimum of 200 lb/A dry fertilizer and check application to ensure uniform coverage. Refer to the DRY FERTILIZER APPLICATION section of the F9312-3 label for additional information.

CORN

POST EMERGENCE APPLICATION RATES

Table 8.

F9312-3 application rates for field corn (grown for grain, seed and silage), sweet corn and popcorn including sweet corn and popcorn grown for seed.

Use Rate F9312-3 Herbicide (fl oz/A) by Soil Texture		
Coarse (Excludes sweet corn)	**Medium** **Excludes sweet corn at 2.0% O.M. or less**	**Fine**
2.25 – 4.5	3.5 – 5.25	4.0 – 6.4

- Use rates listed above are for residual control on the weed control list (Table 1).
- Apply broadcast from emergence through V4 stage corn. From V4 to V8 stage apply only as directed row middle applications (drop nozzles, layby) avoiding spray deposition into the whorl.
- For heavy weed densities and longer residual use the higher labeled rate by the soil type.
- For improved performance, F9312-3 may be tank-mixed with other herbicides including atrazine, dicamba or other appropriate postemergence herbicides. Applications to weeds larger than specified in **Table 2** can result in unsatisfactory control.

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2929 Walnut St.
Philadelphia, PA 19104
1-800-436-0833

COTTON

APPLICATION RATES

Application rates for **F9312-3** when applied alone, in tank mix, or sequentially in cotton are provided in **Table 9.**

Table 9. Residual Rates of F9312-3 in Cotton

Application Timing	Use Rate F9312-3 (fl oz/A) by Soil Texture[1]		
	Coarse[2]	Medium	Fine
Postemergence Early hooded/shielded sprayer. Lay-by directed spray	2.8 – 3.8	2.8 – 3.8	2.8 – 3.8
Postemergence via impregnation on dry bulk fertilizer	2.8 – 3.8	2.8 – 3.8	2.8 – 3.8

[1] Refer to **Table 3** for definitions of soil texture groups.
[2] **DO NOT** apply as a pre-plant or preemergent application on **Coarse** soils categorized as Sand or Loamy Sand.

Crop-Specific Restrictions

- **Postemergence Application (All Soil Textures)** ○ **DO NOT** apply more than 3.8 fl oz/A of F9312-3 (containing 0.111 lb ai of pyroxasulfone and 0.008 lb ai of carfentrazoneethyl) in a single application. ○ **DO NOT** apply more than 7.6 fl oz/A of F9312-3 (containing 0.222 lb ai of pyroxasulfone and 0.016 lb ai of carfentrazoneethyl) per year.

APPLICATION TIMINGS

F9312-3 may be applied in a single application or in sequential applications.

Postemergence Application

F9312-3 is primarily a soil residual herbicide for grasses and small seeded broadleaves with postemergence control of small, broadleaf weeds. **F9312-3** may be applied with a directed spray rig or via a hooded/shielded sprayer directing the spray solution to avoid contact with cotton foliage, green stem tissue, or blooms. **F9312-3** may be applied in tank mixture with other herbicides to broaden weed spectrum and efficacy. **F9312-3** may be impregnated onto dry fertilizer and broadcast over-the-top of cotton. For specific mixing instructions, refer to the Mixing and Loading Instructions under the PRODUCT INFORMATION section. For control of emerged weeds, weeds larger than listed in table 2, or for weeds not covered on this label, a tank mix partner is required. Coverage is essential for good control. The use of an adjuvant is advised for consistent control.

Hooded/Shielded Spray application

Early applications to cotton at 5 to 6 nodes or less must be made with hooded or shielded spray equipment to completely avoid contact with cotton plant tissue. Do not allow fine spray mist to escape the hooded/shielded sprayer. Choose pressure and nozzle combination that avoids fine spray mist.

Early Directed Spray Application

F9312-3 tank mix applications shall be made to cotton that is a minimum of 6 inches in height and has formed sufficient woody bark. Directed spray equipment must direct spray pattern beneath the crop canopy to contact woody stem tissue no more than 3 to 4 inches above the soil surface.

Lay-By Applications

F9312-3 and labeled tank mixtures may be made to cotton plants of 12 inches or more in height with sufficient bark development and height differential between crop bottom leaves and the soil. Spray solution shall be directed at the base of cotton plants to avoid contact with green stem tissue or foliage while maintaining maximum contact with broadleaf weeds that are at appropriate treatment size. **DO NOT** apply when conditions favoring drift exist or wind is above 10 mph.

Postemergence Fertilizer Impregnation

Applications of **F9312-3** impregnated on dry fertilizer are allowed for foliar, broadcast applications from the 2-leaf cotton stage until beginning bloom. Apply a minimum of 200 lb/A dry fertilizer and check application to ensure uniform coverage. Refer to the DRY FERTILIZER APPLICATION section of the **F9312-3** label for additional information.

MINT* (Peppermint and Spearmint)

Table 11.

Use rates of F9312-3 in Mint

Application Timing	Use Rate for F9312-3 (fl oz/A) by Soil Texture[1,2]		
	Coarse	Medium	Fine
Dormant Application	3.5	3.5	3.5

[1]Refer to **Table 3** for definitions of soil texture groups
[2]Refer to **Table 5** for active ingredient use rate equivalents

PERENNIAL GRASSES GROWN FOR SEED

For Use in Idaho, Oregon and Washington Only

F9312-3 may be applied to perennial grasses for seed (fine fescue, perennial ryegrass, tall fescue, and orchard grass), in the fall, or in spring planted (at least 8 tillers) and established stands for preemergence residual weed control of many annual grasses, volunteer sprouts, and winter annual broadleaf weeds listed in **Table 1**. Before applying to perennial grass for seed, verify with your local seed company (supplier) the selectivity of F9312-3 on your variety to avoid potential injury.

Application Rates in Perennial Grasses Grown for Seed

Apply F9312-3 alone, in tank mix or sequentially with other pesticides labeled on perennial grass grown for seed at the residual rates per cropping season (per year) in **Table 14**.

Table 14.

Use rates of F9312-3 in Perennial Grasses for Seed

Application Timing	**Use Rate of F9312-3 (fl /A) o by Soil Texture[1,2]**		
	Coarse	**Medium**	**Fine**
Preemergence application for new seeding (Seed row must have an activated carbon band above them)	Do Not Use	2.75 - 3.0	3.0

ROTATIONAL CROPS

Table 4.

Crop	**F9312-3 Use Rate (fl oz/A)***				
	1.82	3.64	5.46	7.28	9.12
	Rotational Crop Interval (months after application)				
Alfalfa	10	10	10	10	10
Bean, edible dry	9	9	9	9	11
Beans, edible pod and succulent shelled	11	11	11	11	11
Bulb Onion	2	4	4	4	4

[1] Refer to **Table 3** for definitions of soil texture groups
[2] Refer to **Table 5** for active ingredient use rate equivalents

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Canola (rapeseed)	12	12	15	18	18
Celery	0	0	0	0	4
Chickpea	0	0	0	4	4
Corn	0	0	0	0	0
Cotton	1	2	4	4	4
Edamame	0	0	0	4	4
Flax	2	4	6	8	8
Garlic	0	0	4	4	4
Grain Sorghum	6	6	10	12	12
Cool-season Grasses grown for seed*	11**	11**	18	18	18
Warm-season Grasses grown for seed	18	18	18	18	18
Green onion	4	6	8	12	12
Lentils	0	0	0	4	4
Mint	4	4	4	4	4
Peanut	1	2	4	4	4
Peas, edible pod and succulent shelled	9	9	11	11	11
Peas, field (dry)	0	0	0	4	4
Potato	0	0	0	0	0
Rice	10	12	18	24	24
Safflower	0	0	0	2	4
Small Grains (other than wheat)	11	11	11	18	18
Soybean	0	0	0	4	4
Sugar beet	12	12	15	15	15
Sugarcane	4	4	4	4	18
Sunflower	0	0	0	2	4
Other group 20B crops	4	4	4	4	4
Sweet Potato	4	4	4	9	9
Tobacco	9	9	9	12	12
Wheat, Triticale	0	1	4	6	6
Other crops	18	18	18	18	18

NOTE: For rotational crop restrictions when F9312-3 is used in tank mixtures or sequentially with other products, refer to the rotation intervals on the other product label for possible additional restrictions.

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For up to 12 months following application to cotton and potato, the subsequent planted crop may only be a registered crop of cafentrazone-ethyl.
*Only when grown in states of Idaho, Oregon, and Washington. For all other states, see rotational crop interval for “Other Crops”. ** An 11-month rotational crop interval only when greater than 15 inches of precipitation (rainfall/irrigation) has occurred from time of application to planting of grasses grown for seed. If less than 15 inches of precipitation has occurred, the rotational interval is 18 months.

LABEL TRACKING INFORMATION
Label Code: DR-4982 010526 XX-XX-XX

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