# CoAXium<sup>®</sup> Wheat Production System Stewardship Guidelines



**CoAXium Wheat Production System Licenses and Agreements** 

- Growers must execute a Grower
  Stewardship Agreement using the online
  AgCelerate system prior to purchasing
  seed of a CoAXium wheat variety.
- In executing the Grower Stewardship Agreement, the grower agrees to use only purchased Certified seed and follow the Aggressor® AX product label and use stated label rates and herbicide timings.

Stewardship is critical to prolonging the utility, features, and benefits of CoAXium and Aggressor AX brand herbicides. Wheat producers, Ag chemical and seed retailers must follow the required and should follow the recommended Stewardship practices designed to maximize efficacy of CoAXium and prevent the development of herbicide resistance in grassy weeds. For the maximum benefit and longevity of CoAXium, growers should apply Aggressor AX brand herbicides for control of winter annual grasses.

## **CoAXium®** Wheat Varieties

- Seed of CoAXium wheat varieties can only be purchased from authorized CoAXium wheat seed distributors.
- A CoAXium wheat variety can be identified by the AX suffix, which is included in the variety name.
- Growers must purchase new seed of CoAXium wheat varieties each year for planting.
  - Saving seed for replanting or reuse is not permitted.
  - CoAXium varieties are sold only as Certified seed.
  - Use of Certified seed ensures the presence and purity of the AXigen<sup>®</sup> trait, which confers tolerance to Aggressor AX brand herbicides.



## Aggressor<sup>®</sup> AX Brand Herbicides

- If applying an ACCase-inhibiting herbicide with the active ingredient Quizalofop P-Ethyl, growers must only apply Aggressor AX brand herbicides. Aggressor AX is the only EPA registered use of QPE that can be applied to CoAXium wheat.
- Always read and follow the Aggressor AX herbicide label instructions.
- Always use a certified adjuvant with Aggressor AX herbicides.
  - Surfactant selection depends on targeted weed species and growth stage. Recommended surfactants include:
    - Methylated seed oil (MSO) @ 1% vol/vol.
    - Non-Ionic surfactant (min 80%) @ 0.25% vol/vol.
  - MSO is to be used in Aggressor AX herbicide tank-mixes only if the tank-mix partner allows the use of MSO.
- Aggressor AX herbicides can be applied with nitrogen-based foliar fertilizers.
  - · Liquid or dry spray-grade ammonium sulfate (AMS) at 28% N, 32% N or 10-34-0.
  - Total application of nitrogen-based fertilizer products are to be below 30% of the total spray volume.
- Only apply Aggressor AX herbicide in combination with approved broadleaf herbicides to prevent CoAXium wheat crop injury.
- Never tank-mix MCPA Amine, Metribuzin herbicide or 2,4-D Amine formulations with Aggressor AX herbicides.
- Clean spray tank thoroughly before spraying Aggressor AX on CoAXium wheat.
  - Injury from residue of herbicides can occur if tanks are not properly cleaned.
- Aggressor AX herbicide should be applied to fields where CoAXium wheat is planted if winter annual grasses are present to help maximize the benefit and longevity of CoAXium Wheat Production System.
  - Especially important to prevent hybridization and gene flow from wheat into jointed goatgrass.
- Do not make applications of Aggressor AX herbicide if temperatures are expected to fall below and stay below 32° F.
- Growing degree days must be accruing before and after an application of Aggressor AX.
- A general guideline would be to have 5 days of heat units prior to or after the application of Aggressor AX.



#### **Best Management Practices**

- Implement an integrated best management weed control program that includes the use of multiple modes of action of herbicides, mechanical, and cultural practices while using CoAXium Wheat Production System.
- Limit sole reliance on ACCase-inhibiting herbicides (Group 1). Follow the crop rotation guidelines listed below and on the Aggressor AX label.
  - Avoid repeated use of herbicides with the same mode of action, which increases the selection pressure for weedresistant biotypes.
  - Use herbicides with different modes of action when using sequential or tank-mix partners.
- Start with a clean seed bed.
  - Use a burn-down herbicide program prior to planting to control emerged grassy weeds.
  - Use of pre-emergence herbicides, Group 15 or non-ACCase herbicides (non-Group 1), is recommended in cases of high populations of early season grassy weeds.

Feral rye TREATED with Aggressor AX herbicide on the left and UNTREATED on the right. Trial conducted by Montana State University – Ed Davis

- Scout fields for weeds.
  - Before Aggressor AX herbicide application to ensure herbicides and rates will be optimum for the weed species and growth stage.
  - After Aggressor AX herbicide applications to evaluate weed control performance.
- Control weed escapes.
  - Use herbicides possessing a different mode of action or use a mechanical control measure to keep escapes from going to seed.
  - Control jointed goatgrass on field borders, adjacent fields, and in fallow to prevent hybridization of CoAXium wheat with jointed goatgrass.
  - Use best management practices on weed seed at harvest and post-harvest to prevent a buildup of the weed seed populations.
  - Thoroughly clean equipment used to plant, harvest, transport and condition CoAXium wheat to avoid the spread of weed seed.



## **Crop Rotations**

- Follow crop rotation restrictions on the Aggressor® AX label.
- Use crop rotation to manage herbicide resistance and reduce the probability of selecting resistant biotypes of grassy weeds.
  - In annual cropping systems, avoid consecutive crops of CoAXium<sup>®</sup> wheat and use of Aggressor AX herbicide on the same acre(s).
  - In a 2-year crop rotation of wheat-fallow only use CoAXium Wheat Production System and Aggressor AX for two winter wheat crops before rotating the third winter wheat crop year with a non-Group 1 herbicide mode of action for grassy weed control.
  - Rotate CoAXium Wheat Production System with spring crops such as spring wheat/barley, corn, sorghum, sunflowers, soybeans, pulses, or large seed legumes to break the cycle of winter annual grassy weeds and allow the use of alternate mode of action herbicides.
  - Do not rotate consecutively with another ACCase (Group 1) herbicide when controlling grasses in a different crop.
- Properly manage weeds in wheat-fallow-wheat rotations.
  - Control grassy weeds in fallow through the use of burn down (non-ACCase mode of action or non-Group 1 herbicide) herbicides and/or tillage.
  - Use of properly timed glyphosate is an excellent rotation of herbicide mode of action in control of grassy weeds.



Call 1-855-DO RIGHT to anonymously report suspected seed IP violations or illegal use of herbicides on CoAXium wheat. **ProtectCoAXium.com** 



Left: UNTREATED downy brome grass population. Right: Aggressor AX @ 8 oz/acre applied. Downy brome grass is choking out the stand of wheat in the untreated check.

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