



2015 Sorghum Pointers for use of Huskie Herbicide

(Including Label Updates—Oct. 2013 & Nov. 2014)

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The needed disclaimer: This summary of Huskie herbicide for grain sorghum is not a label substitute. For specific label questions or where there is possible uncertainty, contact your local or regional Bayer CropScience rep.

Weed Management in Grain Sorghum—New in 2012

Huskie® Herbicide
Bayer Crop Science

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Sources of Label Information

& **AgriLife** Extension Weed Scientists

⌘ Labels for herbicides, insecticides, fungicides, seed treatments, growth regulators, etc.—access through <http://www.cdms.net>, click 'Services' then 'Labels' then enter Brand name

☑ After 'Labels' you can also search by active ingredient (looking for a generic?) through "Other Search Options" but will need to register for a free password

⌘ **Texas High Plains**—Dr. Pete Dotray, Lubbock, (806) 746-6101, pdotray@ag.tamu.edu

⌘ **Central & South Texas**—Dr. Paul Baumann, College Station, (979) 845-3041, pbaumann@ag.tamu.edu

⌘ **South Texas**—Dr. Josh McGinty, Corpus Christi, (361) 265-9203, joshua.mcginty@ag.tamu.edu

Huskie Herbicide for GS (2014+)

A thick, horizontal yellow brushstroke underline that spans the width of the slide, positioned directly beneath the title.

- ⌘ Selective Post-emerge, including Palmer amaranth, redroot pigweed, kochia, species of morningglory, devil's claw, henbit, marestail; partial control on bindweed, puncturevine
- ⌘ Best weed control from label suggests spray by 4" tall weeds
 - ☑ The larger the weeds the more likely you get incomplete control & some weeds will recover

Huskie in Cotton Production Regions



⌘ Huskie appears to be a much better all around option than 2,4-D or dicamba in regions where cotton is grown, particularly where these chemicals can severely injure cotton due to drift

☒ Huskie does not volatilize, but must physically drift

☒ 2,4-D amine is better for minimizing drift, but may give up to 10% less weed control than ester formulations (Brent Bean, TX AgriLife, Amarillo)

⌘ Huskie cost relative to 2,4-D or dicamba may be a concern for some dryland farmers

Huskie Herbicide for GS (2014+)

- ⌘ Apply over-the-top, 3-leaf stage to **30" tall or flag leaf emergence, whichever comes first (new; but no atrazine after 12" tall)**

- ☒ Label from 2013 & earlier: Apply up to 12" tall (about 7-8 leaf stage, or 4-5 weeks after planting)

- ⌘ Pyrasulfotole + 2 active ingredients similar or same as Buctril (bromoxynil)

- ☒ Buctril is already labeled in grain sorghum

- ⌘ Many tank mix options, but for grain sorghum the key is **atrazine: 0.25-1.0 lbs. (0.5-2.0 pints) atrazine per acre** to 'strengthen and expand weed control' (from the label)

- ☒ This atrazine rate is somewhat lower than for straight atrazine applications (~1/4 to 1/2 less)

Atrazine with Huskie #4

Early Pre-plant or Pre-emerge options...

- ⌘ Using other Pre-plant or Pre-emerge options (including propazine) may be better to provide **preventive weed control** and “save” atrazine for pairing with Huskie
- ⌘ These options include:
 - ❖ Propazine (Milo-Pro) as PP or PRE
 - ❖ Individually, s-metolachlor (Dual Magnum), alachlor (Micro-Tech, Intrro), or acetochlor (Warrant)
 - ❖ s-metolachlor or alachlor in combination with reduced rates of atrazine (e.g., Bicep II Magnum, Cinch ATZ, Bullet, Lariat, etc.)
 - ❖ Also dimethenamid (Outlook), possibly mixed with atrazine (Guardsman Max)
 - ❖ Saflufenacil (Sharpen), possibly mixed with dimethenamid or reduced atrazine rates

Current Bayer Suggestion

Texas High Plains & All Other Texas Regions

⌘ For optimization of weed control:

1 pint/A (16 fl. oz.) of Huskie
+ 1 pint/A (16 fl. oz. or 0.5 lb. a.i.) of
atrazine*

+ 1 lb./A of Ammonium Sulfate

☒ *Also a new 2014 label comment on possibly using NIS or HSOC*

☒ *Atrazine only if grain sorghum ≤12" tall*

⌘ Growers on loamy and clayey soils with 2 pints/A rates of atrazine can split the atrazine into two 1 pint/A applications if making two applications < 12" tall

☒ Consider maintaining atrazine in PPI/PRE program

Further Huskie Label Info.

Texas High Plains & All Other Texas Regions

- ⌘ Labeled rate is 12.8 to 16.0 oz. of Huskie per acre, but likely use full rate
- ⌘ 32 oz. per acre allowed season-long in a total of two applications
- ⌘ Two sprays a minimum of 11 days apart
- ⌘ With wider application window then there is more time for a potential second spray
 - ☒ Still use atrazine in 2nd spray for enhanced control? NO! ATZ only through 12" tall.

Additional Label Change/ Comment for 2014 (#1)



⌘ **Why AMS?**—“When Huskie Herbicide is applied under challenging conditions, the addition of 1 lb./A of ammonium sulfate (AMS) is recommended to optimize herbicidal activity.”

Additional Label Change/ Comment for 2014 (#2)

⌘ Why NIS or HSOC?—"For optimal weed control in grain sorghum in arid environments, Huskie herbicide + 1 lb./A AMS can also be combined with 0.25% v/v NIS **or** 0.5% v/v HSOC"

- ☒ Use NIS for sure if tank mix partner requires it
- ☒ At least 80% of the NIS surfactant product must be active non-ionic surfactant. Avoid products that do not accurately define their ingredients.
- ☒ HSOC, a new category of adjuvant: **H**igh-**S**urfactant-**O**il **C**oncentrate (50% oil & 25-50% surfactant).
- ☒ HSOC products can be used in spray-mix combinations of glyphosate and ACCase (post graminicide) herbicides to control volunteer glyphosate-resistant corn, etc.

Huskie Herbicide for GS (2014)



- ⌘ Other tank mixes for broadleaf control: includes Ally, dicamba, 2,4-D, Peak, Starane
- ⌘ Label suggests spray grade ammonium sulfate (AMS) at 0.5-1.0 lbs./A
- ⌘ NIS (non-ionic surfactant) if tank mix partner requires it
- ⌘ TX AgriLife has noted only minor to ~15% leaf burn/injury at 4-leaf sorghum, essentially all disappears by 3 weeks; similar to none at 8-leaf stage
- ⌘ No maturity delay or reduced yield due to Huskie has been observed in TX AgriLife trials, 2009-2011

16 oz./A Huskie + 1 pint/A Atrazine + AMS - Day 0
2012—Nazareth, TX

Photo series courtesy
Bayer CropScience



16 oz./A Huskie + 1 pint/A Atrazine + AMS - Day 5
2012—Nazareth, TX



16 oz./A Huskie + 1 pint/A Atrazine + AMS - Day 7
2012—Nazareth, TX



16 oz./A Huskie + 1 pint/A Atrazine + AMS - Day 14
2012—Nazareth, TX



Two Considerations— Delayed Huskie Applications

⌘ Now that Huskie labels grain sorghum applications up to 30" tall (no ATZ after 12" tall) or flag leaf emergence, potential uses include:

- ☒ 1) Mid-season rescue treatment: Though this may be appealing, view this only as a last resort and do not rely on late application if it should be made 1-3 weeks sooner due to weed size. **Waiting until 30" tall or near flag leaf emergence means that pigweed and other problem weeds are likely larger and much harder to kill.** Weed control will more likely be incomplete and a new round of pigweed seed may be generated.
- ☒ 2) If Pre-emerge weed control is good but has some escapes, then a later mid-season application may be needed to clean these up. Good PRE weed control will provide the opportunity to delay mid-season Huskie applications to taller sorghum, enabling control of later emerged weeds (label guidelines are still ≤ 4 " tall weeds) and/or extend the opportunity for preventive weed control with atrazine.

Huskie in Crop Rotations

⌘ 7 days: wheat, barley, grain sorghum

⌘ 1 month: Oats, rye, triticale, certain forage grasses

⌘ 4 months: alfalfa*, corn, millet, soybean

☒ *Alfalfa: Thorough tillage AND $\geq 12''$ rain/irrigation

⌘ 9 months: corn, sunflower, canola, numerous peas & dry beans, safflower

⌘ 2013 note: High Plains AgriLife weed science staff observed some carryover injury to peanuts and cotton from Huskie for the first time (see next slide for 2014)

☒ This will be examined further.

Huskie in Cotton Rotations

- ⌘ Cotton? “Field Bioassay” for reduced restriction—no specific number of months is stated (*does not say 18 months although that is what Bayer staff have mentioned verbally in the past*)
 - ☒ Prior to 2013 Texas A&M AgriLife & Bayer staff had not yet observed any problem rotating to cotton the next year after a Huskie application;
 - ☒ 2013—some rotation injury was observed in the High Plains to cotton and peanuts for the first time.
 - ☒ 2014 in particular—there was damage on cotton (including field loss) attributed to Huskie, and it was on fields with and without atrazine (in 2013) as well as fields that were not stressed in 2014: **AgriLife weed science consensus—bone-dry Fall 2013 through May 2014 led to little soil breakdown of residual Huskie...**
 - ☒ It is possible that rotation to crops like cotton the following year after Huskie use might eventually include provisions (as some other herbicides do for a combination of rainfall and irrigation minimum number of inches?) in order to plant certain rotation crops (e.g., like the Huskie label currently notes for alfalfa)

A Final Thought

Huskie + Atrazine POST **vs.** Good PRE Program

- ⌘ The advent of Huskie for Texas sorghum should not overshadow the fact that a farmer's weed control decision about sorghum pre-plant/pre-emergent weed control is more important than the option Huskie offers.
- ⌘ **In fact, pre-emerge (or PRE) weed control is the most important weed control decision a farmer will make in grain sorghum production in Texas.**
- ⌘ Dr. Wayne Keeling, AgriLife Research weed scientist, Lubbock, notes that although Huskie is a good asset, our priority effort should remain focused on effective PRE weed control. **Our goal?**—Prevent weeds in the first place, especially during sorghum emergence and early growth. Then post-emergent (POST) weed control (Huskie, dicamba, Ally, Permit, 2,4-D, etc.) can focus on controlling escapes as needed. Furthermore, if PRE weed control is good, producers may be able to delay needed POST control by 1 to 3 weeks (the Huskie label is now extended to 30" tall sorghum) to provide a longer window of either direct control of existing weeds or extending residual control further into the growing season.