

March 27, 2015

To: Those Involved in Grain Sorghum Production

Grain Sorghum Production

Herbicide Carryover: Herbicides containing fomesafen (flexstar, Reflex, etc) have a 10 month plant back interval for grain sorghum. We have seen injury when grain sorghum is planted sooner than 10 months. Other herbicides such as Classic and Newpath (Clearfield rice) could also be a problem. Consult the MP519 2015 Row Crop Plant-Back Intervals for Common Herbicides

Field Selection: After you have determined you don't have an herbicide carry over concern, field selection, specifically field drainage is very important. Grain sorghum, just like corn does not like wet feet, so having adequate drainage is needed. Grain sorghum can perform well on clay, silt loams, or sandy soils if given a fighting change. If the field has Johnsongrass or Texas Panicum, consider not planting sorghum as control options are limited.

Hybrid Selection: Grain sorghum hybrid selection is important. There are several companies that have grain sorghum hybrids that have been tested and have performed well in the Mid-South. The table below has 2-year average yields from all testing sites:

2-Year Average Grain Sorghum Yields (bu/acre) in the Arkansas Grain Sorghum Hybrid Performance Trials, 2013-2014.						
Hybrid/Brand	Keiser Irrigated	Keiser Non Irrigated	Marianna Irrigated	*Stuttgart Irrigated	*Rohwer Irrigated	*Rohwer Non Irrigated
BH 3822	138.0	139.1	143.9	----	----	----
DEKALB DKS51-01	145.5	126.6	155.2	----	----	----
Dyna-Gro 765B	133.8	124.6	143.8	169.4	148.8	129.6
Dyna-Gro M75GB39	120.7	127.4	132.9	----	----	----
Dyna-Gro M77GB52	116.3	119.6	143.0	----	----	----
Dyna-Gro M77GR61	122.0	106.9	137.9	----	----	----
Pioneer 83P99	139.0	127.0	146.7	174.1	147.0	139.6
Pioneer 84P80	136.1	134.0	154.8	170.0	147.2	137.2
REV® RV 9562™	124.4	125.9	142.2	----	----	----
REV® RV 9782™	129.4	126.3	134.9	138.9	139.6	133.9
REV® RV 9883™	125.9	127.9	141.6	147.7	136.7	126.0
REV® RV 9924™	129.6	130.5	141.1	----	----	----

*2012-2013 data

Seed Treatments: There are several seed treatments to consider. Concep treated seed is a must. This seed safener allows s-metolachlor (Dual) to be applied with minimal risk of injury. Without the Concep seed treatment, significant injury will likely occur with preemergence applications of s-metolachlor. **Nearly all seed sold in the Mid-South is Concep treated, but NOT ALL, so double check before you plant.** Seed insecticide treatments such as Cruiser, Poncho, Nipsit Inside, and Gaucho (and generics) have been shown to greatly improve stands and yields in some instances. Seed insecticide treatments are recommended for grain sorghum.

Planting Date: Grain sorghum is not nearly as cold tolerant as corn, but relatively early planting is needed to maximize yields and reduce impacts of insects later in the season, including midge, head worms, sugarcane aphids. In general, there is a 4-6 week window when yields are likely to be maximized, generally during the month of April to early May.

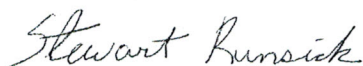
Early-Season Weed Control: Starting off weed free is critical, so an adequate burndown program or tillage is needed. Immediately after planting, a preemergence application of s-metolachlor (Dual) herbicide should be applied to reduce early season weeds and control grasses. There are no "good" grass control options once the grass has emerged in grain sorghum, although atrazine or facet can control very small grass. It is very important to apply s-metolachlor immediately after planting to avoid grass problems. We generally do not recommend atrazine immediately after planting, especially if planting very early. Cold wet soil is stressful enough on small grain sorghum and adding atrazine to that scenario makes it tougher. The re-plant interval for grain sorghum is 10 months following a Leadoff application. Roundup + 2,4-D + Sharpen or FirstShot, or Roundup + Verdict are excellent options for burndown applications in grain sorghum. Verdict provides excellent POST control of henbit and horseweed and adds residual activity on many broadleaf and grass weeds. Growers should consider spiking the Verdict with more Outlook or Dual to increase residual grass activity, or follow up with Dual Magnum PRE.

Row Spacing: Grain sorghum can be successfully grown on any number of row spacings including 38 inch wide rows. In 2014, yields greater than 160 bu/acre were realized on single 38 inch wide rows. In lower yield environments (typically dryland) row spacing did not have an impact on grain yield. Getting grain sorghum planted correctly at the proper planting rate, and uniform seed depth (1 inch) to facilitate even emergence should be the goal regardless of row configuration.

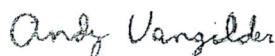
Plant Population: In general for irrigated fields we recommend 75,000 plants/acre (final stand), which would be a planting rate of about 90,000 seeds/acre. This would roughly be 6-7 lbs of seed/acre (depending on seed size). For dryland fields, a final plant population of 60,000 is recommended (75,000 seeds/acre, approximately 5 lbs of seed/acre).

Early-Season Nitrogen Management: Nitrogen management should be performed similar to corn with small amount applied before or at planting (up to 1/3 of total N) and then side-dress the remainder nitrogen once the plant gets to the 5-6 leaf stage. At about the 6-leaf stage, the plant will be entering a rapid growth stage and the plant will need to have the nitrogen available at that time for optimal yields. Total nitrogen will vary on whether the crop will be irrigated and soil type, but generally ranges from 110 units of total N for non-irrigated silt loam/sandy loam fields to 160 units total N for highest yields on irrigated silt loam/sandy loam soils.

Sincerely,



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