PIONEER® WILDCAT AGRI-SERVICES

1123 West 4th Street
Sedgwick, KS. 67135

STANDARD

U.S. Postage Paid

Sedgwick, KS.

Permit # 14

Corn Seed Return Deadline is May 18th

If you are still planting please call us and we will work with you.

Don't forget that when you paid for your seed you locked in your infinity level discount for savings all year long. Any seed that you buy now or later on this planting season will be at the same Infinity level discount as the seed your purchased previously.

YouTube This month's topic is **Cold Weather: What it Means for Your Field's Crop's** Go to YouTube and type this into the search bar and it will show up for you. For more topics search Pioneer Seeds.

Contact Information

Pioneer & Wheat Seed Needs

Korey Carmichael 316-641-3160
korey.carmichael@plantpioneer.com

Tye Engel 316-217-6253
tye.engel@plantpioneer.com

Mike McGinn 316-772-7171
mikemcginn@plantpioneer.com

Tanner Gatz 316-284-1597
TGATZ4@gmail.com

Insurance

Steve McGinn 316-284-1935
mcginnst@hotmail.com

Billing Questions

Susannah McGinn Off. 316-772-5050
susannah.mcginn@plantpioneer.com

National Yield Contests If you are interested in entering into either of these contests please call Susannah at the office to get registered!

National Corn Growers Association

National Sorghum Producers — the voice of the sorghum industry

Ag Risk Management

Crop Insurance today offers...Lots of choices, if you want a crop insurance agent that can help you make choices from a farmers perspective contact Steve McGinn 316-284-1935

farmside SERVICES On Your Side.

Turn your Corteva Cash into chemicals you can use on your farm. Call Korey Carmichael today to place your order!

Korey 316-641-3160

WILDCAT AGRI-SERVICES

Volume 23 Issue 4
May 2020

Pioneer Premium Seed & Treatments, Crop Insurance, Agronomy Services, Field Days, Seed Wheat, Seed Delivery, and Personal Service

Inside this issue:

Thank you for Your Support of Wildcat Agri-Services

We wanted to take a moment to recognize the fact that you do have choices when it comes to whom you partner with on your seed selections. There are many good hybrids and varieties out there, as well as folks who offer them. Sometimes we may forget in the heat of the moment to say **"Thank You"** for supporting Wildcat Agri-Services through your purchases of Pioneer seed, and other ag products. Evenings, and weekends, we figure its all part of the job– again part of being a local independent dealer.

As it looks to be a fairly good wheat crop if you are thinking about some double crop seed after harvest this year, please keep us in mind for your needs. We have a good supply of both grain sorghum and STS soybeans . Give us a call and we will be happy to tell you all about the varieties available and what would work best on your farm.

Thank you again for the support of Wildcat Agri-Services and we look forward to serving you this season. Good luck in the months ahead.

Achieving 100 bu./acre Yields in Soybeans

Increasing Yields in Soybeans

⇒ Improvements in genetics and management have driven substantial gains in soybean yields in eh US over the past 50 years, at a rate of .48 bu/acre/year

⇒ US average soybean yields topped 50 bu/acre for the first time in 2016 and again in 2018.

⇒ 100 bu//acre has often served as a target yield level for farmers seeking to see how high they can push yields with optimized management and the newest genetics

⇒ Across all of the on-farm genetic and agronomic trials Pioneer conducts each year in the US and Canada, it has not been unusual for a few entries each year to top 100 bu/acre.

⇒ In 2018 the number of plots exceeding 100 bu/acre increased dramatically. The majority of these plots were planted to the new Pioneer® brand A-Series soybean varieties.

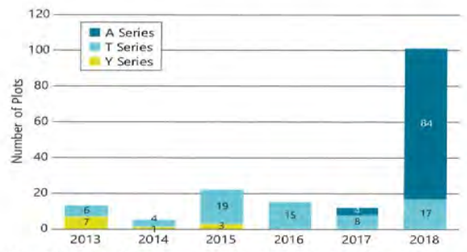


Figure 2. Series of Pioneer brand soybean varieties used in Pioneer on-farm trial entries exceeding 100 bu/acre, 2013-2018.

Pioneer On-Farm Trial Results

⇒ A total of 101 on-farm soybean trial entries exceeded 100 bu/acre in 2018, 84 of which were planted to A-Series soybean varieties.

⇒ 100 bu/acre was achieved with 35 different Pioneer brand varieties from maturing group 2.3-5.2

⇒ Yields over 100 bu/acre were achieved over a relatively wide geography from 2013 to 2018, including 17 US states and 2 Canadian provinces.

Agronomic Practices

⇒ 100 bu/ace yields were achieved in a range of different environments with a arrange of different agronomic practices

⇒ Analysis of management practices used in yield contest winners in other crops have produced similar findings indicating that there is no single one-size-fits-all formula for achieving high-yield potential

Previous Crop

The vast majority of 100 bu/acre plots were planted to corn the prior season—155 of 168—while 9 were planted to soybeans and 4 to another crop.

Tillage

The most common tillage system used at locations with 100 bu/acre plots was conventional tillage, followed by no-till

Continued on page 2

Seed Treatments & Custom Treating

We will have most all types of seed treatments available again this year. Upon request we can deliver these along with your seed order to your farm. We are also able to custom treat your beans with insecticide, fungicide, or inoculants again this year. We will also have again this year "ILeVO" seed treatment to treat for sudden death in soybeans.

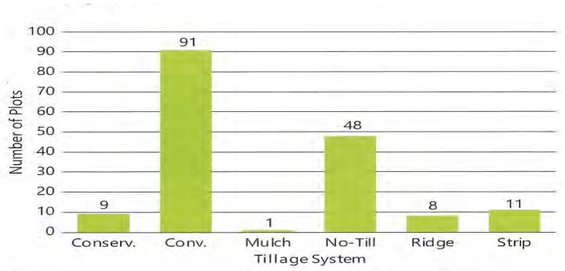
The cost for "***The Works***" (insecticide, fungicide & inoculant) is a little less than 1 bushel of soybeans. This is an excellent time to give those products a try. Call us for pricing.

PIONEER PREMIUM SEED TREATMENT

Achieving 100 bu/acre Yields in Soybeans — Continued

Seeding Rate

⇒ Seeding rates used in plots yielding above 100 bu/acre ranged from 110,000 seeds/acre to 200,000 seeds/acre, with an average of 157,000 seeds/acre



⇒ Average seeding rate was slightly higher among no-till locations than conventional-till locations

⇒ Seeding rates differed among the 4 states with the most 100 bu/acre plots:
- The average seeding rate across Kansas and Nebraska locations was 170,000.

⇒ Seeding rates in Kansas and Nebraska are similar to those documented in a larger, multi-year survey of high-yield soybean production in these states, which found an average seeding rate of 174,000 seeds/acre.

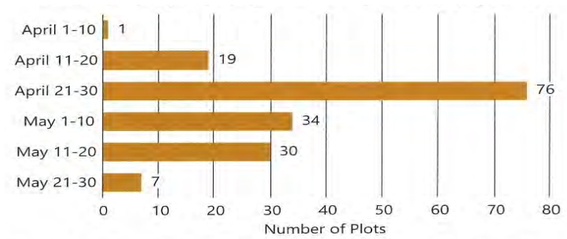
Row Spacing

⇒ Over half of the 100 bu/acre plots were planted in 30-inch rows with most of the rest in 15-inch rows or other narrow row configurations and a few in rows wider than 30 inches

⇒ Geographic distribution of row=spacing practices roughly corresponded with findings of recent USDA surveys, with 30 inch rows most common from Illinois west and narrower rows more common from Indiana east.

Planting Date

⇒ Recent research has shown the importance of early planting for maximizing soybean yields. Most trial locations with 100 bu/



acre plots were planted in the latter half o April through the first half of May.

Other Practices

⇒ Other management practices employed at locations with 100 bu/acre plots included foliar fungicides, foliar insecticides, and supplemental nitrogen applications.

Sorghum Production Information

by Brent Bean Ph. D. Sorghum Checkoff Director of Agronomy

Sorghum Seeding Rates

Of all the major crops grown in the U.S., grain sorghum clearly has the widest range of seeding rates. Depending on the region of the country, and to a lesser extent within a region, seeding rates can vary from 20,000 to 120,000 seeds per acre. Two experienced sorghum agronomists, even from the same region, are likely to offer two different recommendations for any given set of conditions, largely due to the unique ability of the sorghum plant to adapt to its environment.

The sorghum plant has the ability to tiller, as well as adjust the size of its panicle (head), in response to growing conditions. Tillers are secondary stalks that grow from the basal nodes of a plant at or just below the soil surface, usually within two weeks of plant emergence. Sorghum's ability to tiller gives growers a lot of flexibility in seeding rates. A minor change in a seeding rate of a few thousand seeds per acre often results in no significant difference in yield.

Yield is determined by the interaction of three components: number of grain kernels per panicle, weight of the individual grain kernels and number of panicles per acre. The typical number of grain kernels per panicle can vary from 1,000 to 3,000, for an average of approximately 2,000 kernels. Weight of the individual grain kernels is normally expressed as weight per 1,000 kernels (TKW). The most common TKW is approximately 21 grams. Using these numbers the average size panicle will have 0.1 pounds of grain. Using 0.1 pounds of grain per panicle, growers can easily calculate the number of panicles per acre needed for any given yield goal.

The number of harvestable panicles is determined by the seeding rate, emergence rate and tillering. The interaction between the seeding rate and environmental conditions soon after emergence plays a large role in the number of viable tillers per plant in any given field. For a more detailed discussion on tillering, visit the Agronomy Insights page of the Sorghum Checkoff website.

Growers should select their seeding rate based on yield goal and current and expected short-term environmental conditions at planting. An optimum seeding rate should be low enough that the established plants can withstand short periods of drought yet high enough to achieve a reasonable yield goal with or without significant tillering.

Seeding rates can be adjusted to fit local conditions, but are appropriate under most environments. Some agronomists recommend increasing the seeding rate on narrow rows, for example when switching from a 30-in row spacing to a 15—inch row spacing. Typically

Utilizing Starter Fertilizer in Grain Sorghum

Reduced and no-till cropping systems have become increasingly important as growers recognize the benefits of these systems to soil health, sustainability, yield and profitability in many regions of the U.S. However, early in the season, increased surface residue results in cooler soil temperatures at planting leading to slower emergence and reduce root growth. This reduced root growth results in a lower rate of nutrient uptake reducing early season growth and plant health. The use of starter fertilizer at planting can help minimize the effect of cool temperatures.

Starter fertilizer can be applied in band over the row, in the seed furrow, below the seed, on the surface to the side of the row, or on the side but below the surface. In-seed furrow placement, often referred to as 'pop-up' placement, has been shown to increase early season growth, but any yield advantage to this treatment has been inconsistent. Part of the reason for this is that the rate of nitrogen placed in the seed furrow must be kept low, generally less than 8 lb./A, depending on soil type, to prevent injury to the germinating seed. However, much higher rates can be applied when fertilizer is placed a small distance from the seed.

In a three year study conducted in Kansas, positive yield results were obtained by placing nitrogen and phosphorus either dribbled on the surface two inches from the row, or by injecting the fertilizer two inches to the side and two inches deep (Figure 1). All plots received a second application of N following planting to bring the total N in each plot to 140 lbs. A combination of both N and P were needed in the starter mix to maximize yield. Best yields were obtained with 30 lbs. of N and 30 lbs. of P applied two inches to the side and two inches deep. Both dribbling on the surface and injecting the fertilizer improved yields, but in all treatments injecting provided the highest yield.

Another major benefit to the starter fertilizer application was the decrease in time it took the sorghum to reach maturity. Sorghum reached mid-bloom eight days faster in the 30x30 treatment compared to when no starter fertilizer was applied. Decreasing the time it takes sorghum to reach physiological maturity can potentially make a big difference at the end of the season to avoid damage from an early freeze event. In the Kansas study, grain sorghum reached 15 percent moisture 13 days earlier than the sorghum that received no starter fertilizer.

Pre Emergence Weed Control

Weed control is critical for the success of any crop, and grain sorghum is not an exception. Unlike many other crops, the nonselective herbicides glyphosate and glufosinate cannot be used post-emergence to control weed escapes. In addition, research repeatedly has shown that maintaining weed control during the first 30 days after crop emergence is critical to protecting the yield potential of sorghum.

To successfully grow sorghum, a pre-emergence weed control program is essential. Recent research completed by both Texas A&M and Kansas State Universities have shown that an increasingly high number of fields across the sorghum belt have populations of weeds that have either increased tolerance, or in some cases 100 percent resistance to popular herbicides. While resistance is easy to spot, tolerance -- which is when the weeds require a higher dose for control or activity is inconsistent when conditions are less than ideal, is harder to recognize. This increase in tolerance to popular herbicides is one reason why consistent weed control from field to field or from year to year has become more difficult to achieve.

Growers will get the best results when they use two or more active ingredients with different mode-of actions for pre-emergence weed control. Below are the most common and effective pre-mixes for weed control in sorghum:

⇒ Bicep II Magnum, Bicep II Lite Magnum, Cinch ATZ, other generics Contain atrazine and S-metolachlor (some generics use metolachlor)

Continued on page 4

Sorghum Production information Continued

⇒ Degree Xtra, Fultime NXT Contain atrazine and acetochlor

⇒ Lumax EZ, Luxar EZ Contain a three-way mix of atrazine, S-metolachlor and mesotrione

All of these mixes require sorghum seed that is treated with the safener Concep III. If Palmer amaranth is the primary weed of concern, the two-way mixes of atrazine and either S-metolachlor or acetochlor normally will provide good control. Use the maximum rate for the soil type and crop rotation. Adding mesotrione to make a three-way mix is appropriate in heavier textured soils, especially in those fields where weed resistance to atrazine is known to exist. Soil type restrictions do apply to both atrazine and mesotrione and should not be ignored or significant crop injury can occur. If atrazine cannot be used because of soil type (only use in medium- and fine-textured soils) or other considerations, metolachlor (Dual), acetochlor (Warrant) or dimethenamid-P (Outlook) should be used pre-emergence. Then, in most cases, atrazine can be applied early post-emergence to provide additional residual control.

Another non-atrazine pre-emergence treatment that has gained in popularity over the last few years is Verdict + Outlook. Verdict contains saflufenacil (Sharpen), which has good burndown activity as well as some soil residual. The product can be a good one to use if small weeds are present at planting. In addition to saflufenacil, Verdict contains dimethenamid-P. However, Verdict does not have enough dimethenamid-P to provide adequate residual control. For this reason, it is recommended to apply Verdict at 10 ounces plus an additional 10 ounces of Outlook. Check labels for soil-type restrictions.

The main reason for pre-emergence weed control failure with any of the mentioned treatments is heavy rainfall after application that leaches the herbicide away from the weed seed in the soil. Most weed seed germinate from the top one inch of soil. If this is suspected to have happened, consider applying s-metolachlor, acetochlor or dimethenamid-P to the emerged crop as soon as possible. While these herbicides will not provide any control of emerged weeds, they will control those weeds that have not emerged and lengthen the amount of residual control that can be expected later in the season.

S-metolachlor vs metolachor

S-metolachlor and metolachlor are slightly different forms (isomers) of the same molecule; however, S-metolachlor is more effective than metolachlor when applied at the same rate. When a label lists the active ingredient as metolachlor, it actually contains four different metolachlor isomers. In contrast, a label that lists the active ingredient as S-metolachlor will contain approximately 88 percent of the more active S-metolachlor isomer. Differences in weed control between S-metolachlor and metolachlor can be observed, particularly in fields with high weed populations and when environmental conditions are less than ideal. If metolachlor is used, increase rate at least 25% to account for its lower weed control activity.

Dual Magnum vs Dual II Magnum

Growers sometimes asked what is the meaning of 'II' in Dual II Magnum and Bicep II Magnum. The 'II' indicates that the product includes the safener benoxacor. This safener has nothing to do with sorghum, but it increases the ability of corn to metabolize metolachlor and reduces the potential for plant injury. As mentioned earlier, sorghum seed must be treated with Concep III safener when using metolachlor, acetochlor or dimethenamid-P. All of the different environments and circumstances that determine if and how any given herbicide can be used cannot be discussed here. Consult the product label for the specific use of each herbicide.

Fertilizing Grain Sorghum

The cost of planting grain sorghum is much less expensive than other crops, primarily because of seed price. As a result, many growers assume they can save on other input costs as well. The best example of this involves the use of fertilizer. On a per bushel basis, grain sorghum requires a similar amount of most nutrients as corn. If a grower wants to produce a 100-bushel sorghum crop, the grower must support this yield goal with a supply of adequate nutrients, including phosphorus, nitrogen, sulfur and potassium. In some soils, growers also may need to adjust pH to ensure the availability of soil nutrients to the sorghum.

Soil pH

This critical component determines if nutrients in the soil can be taken up by the plant. Optimum nutrient availability occurs within a pH range of 6.5 to 7.5. When pH drops below 5.6, liming is warranted to reduce soil acidity, which then allows plants to utilize soil nutrients.

Phosphorus

Phosphorus is especially limited when pH drops below 6 or is above 8. When pH falls outside the optimum range, agronomists often recommend applying phosphorus in or close to the seed furrow or in a narrow band a few inches to the side and a couple of inches deep into the soil. By concentrating the phosphorus, the nutrient has less opportunity to become “tied up "by the soil. In addition, common phosphorus fertilizer sources contain nitrogen and sometimes sulfur, which tend to lower the pH within the narrow band to allow greater phosphorus availability. Growers should base the amount of phosphorus fertilizer applied on soil test estimates and yield goal.

Nitrogen

In most farming environments, the most limiting nutrient to yield is nitrogen. Sorghum is no exception, requiring 1.12 pounds per bushel of grain produced, which is very similar to the recommendation for corn. As shown in the graph below, yield becomes less responsive to nitrogen as yield approaches 150 bushels per acre because yield becomes limited by other factors. Growers must base the amount of nitrogen applied on factors including yield goal, the amount of residual nitrogen in the soil profile and the expected nitrogen amount mineralized from soil organic matter. Soil sampling and analysis are critical for this determination and will prevent both the over application and under application of fertilizer.

Going into the growing season, growers often find it difficult to set a yield goal and, in turn, struggle with calculating the proper amount of nitrogen needed. Since growers do not want to over apply nitrogen, they can manage nitrogen with a multiple-application plan. Growers should consider applying no more than 50 percent of the anticipated needed nitrogen as a preplant application and then adjusting the remainder of the nitrogen applied to meet the anticipated yield potential as the season progresses. A multiple-application plan is particularly important on sandy soils where preplant nitrogen can leach out of the sorghum root zone following heavy rains.

Once sorghum is established, two critical growth stages occur when lack of nitrogen can significantly impact yield. The first stage occurs approximately 30 days after emergence, when sorghum enters a rapid growth period and the potential number of grain kernels start to form. Adequate nitrogen must be present to support this rapid growth period. The second stage is at or just prior to the boot stage, which occurs approximately one week prior to heading, when nitrogen supports good pollination, grain set and grain fill.

Sulfur

An often neglected nutrient in grain sorghum is sulfur, which improves nitrogen use efficiency and is especially important as yield

Continued on page 5

Sorghum Production Information Continued

increases. Growers should strive to keep the nitrogen to sulfur ratio at approximately 15-to-1.

Potassium

In most U.S. soils, potassium is available in adequate supply for the needs of sorghum. However, growers may need to add potassium in very shallow soils with reduced rooting depths and on sandy soils.

Post Emergence Weed Control in Sorghum

Grain sorghum, in particular, is greatly dependent on a successful preemergence program. If preemergence herbicides were not applied or not effective due to weather conditions, growers should apply postemergence herbicides. There are several postemergence herbicide options available for sorghum crops, especially for broadleaf weed control.

Atrazine. This product has an added advantage when applied postemergence because atrazine is not only very effective on small emerged broadleaf weeds, but at the same time, provides preemergence activity. Soil restrictions often prevent preemergence use of atrazine in sandy, high pH or low organic matter soils due to the potential for crop injury, but these restrictions do not apply to postemergence application. Growers, however, should check for any crop rotation restrictions that might apply.

Clarity (dicamba) or 2,4-D amine. Either Clarity applied at 8 ounces per acre or 2,4-D applied at 1.0 to 1.5 pints per acre are effective treatments on most broadleaf. Risk of crop injury is an issue with Clarity or 2,4-D, and yield reduction can occur even when physical injury symptoms are minimal. To reduce the risk of crop injury, Clarity or 2,4-D should be applied after all sorghum has emerged but before the height exceeds 15 inches. Drop nozzles are recommended once sorghum exceeds a height of 8 inches. The addition of surfactants and other adjuvants with Clarity or 2,4-D is not recommended because it tends to increase crop injury. Weeds less than 4 inches tall are much easier to control than larger weeds. If dicamba drift is a concern, the new low-volatile products Engenia, FeXapan and XtendiMax are labeled for use in sorghum.

Starane Ultra. An alternative to Clarity and 2,4-D, Starane Ultra is safer to use on a sorghum crop. The product has good activity on kochia, morning glory species and a few other broadleaf weeds. Starane Ultra does not provide good pigweed control, but use of the Starane NXT formulation, which contains the addition of bromoxynil, can help with pigweed.

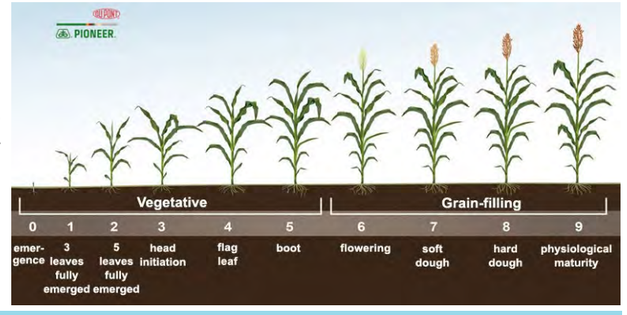
Huskie. This product contains the HPPD active ingredient pyrasulfotole plus bromoxynil and is one of the most effective products used in sorghum for broadleaf weed control but should be used only in areas free from HPPD-resistant weeds. Though most effective on small weeds, when necessary, growers can use Huskie as a rescue treatment on larger weeds. Growers can apply Huskie to sorghum plants up to 30 inches tall before flag leaf emergence. The addition of a low rate of atrazine plus an adjuvant provides the best control. Temporary sorghum leaf spotting and yellowing likely will occur with the use of Huskie, but sorghum typically rebounds from these injury symptoms within a few days.

Peak. This herbicide is very safe on sorghum plants up to 30 inches tall. However, Peak, a sulfonylurea herbicide, is not as effective on larger broadleaf weeds as some other products and can be especially weak on pigweed. Peak should not be used where AL resistant weeds are present. Typically, Peak applied in a mix with Clarity or atrazine provides better control. Crop rotation restriction to cotton or soybeans is 18 months in many regions. Permit. For fields infested with nutsedge,

Permit is a good choice. The product also is effective on cocklebur, sunflower and a few other broadleaf weeds, but Permit is not effective against pigweed. Some premixes on the market contain Permit plus Clarity or Peak to broaden the spectrum of controllable weeds.

Facet or Quinstar. Currently, no postemergence treatment effectively controls grass weeds in sorghum. Facet, or its generic counterpart Quinstar, may provide some suppression of very small annual grasses. Looking forward, a herbicide-tolerant sorghum that allows postemergence herbicide use to control grass weeds may be commercially available in 2021.

Dual Magnum, Warrant and Outlook. Not all postemergence herbicides provide soil activity, for these products growers may want to consider adding either Dual II, Warrant or Outlook, to the mix. These products have no postemergence activity on weeds, but will provide soil activity and prevent new weeds from emerging.



2020 Pioneer Replant Policy

If you find that you need to replant any field (for any reason) originally planted with Pioneer brand corn, grain sorghum, forage sorghum, sorghum sudangrass, sunflowers or soybean seed; Pioneer will furnish replant seed at 50% -100% off of the current variety price . The discount amount you qualify for will depend upon what level Infinity Discount you are at.

Platinum customers qualify for 100% replant. Gold level qualify for 75% replant and Silver level qualify for 50% replant.

Replant seed will be authorized only for the same year that the product is invoiced. Replant seed will be of suitable maturity for the conditions. Pioneer is not obligated to furnish specific hybrids/varieties or kernel sizes for replanting.

Only the purchaser (person invoiced and paying for the order) is qualified for service under the replant policy. The replanting agreement is not transferable by the purchase to any other seed used. The sales representative is required to verify each field that is to be replanted. We will need the location of the field for replant to enter into the Pioneer system.

If you decide to not replant after the replanted stand is initially established then Pioneer shall not be obligated to extend any replant offer should chemicals, weather, livestock, or other events cause damage to the growing crop.