



WORKING STANDARDS AND QUALITY DATA

HOW WE CAN SERVE YOU BETTER

Quality Statement: ABG Ag Services believes that there are fundamentals and general knowledge items that can help us better serve you to ensure quality and timely data. We work hard to standardize processes to eliminate mistakes and give you accuracy.

Protocols:

A clear and concise protocol is a key to successful trial management. The listed items to follow are good starting points when writing and developing protocols. 1. Title, 2. Objective, 3. Critical Tasks, 4. Experimental Design and Plot Dimensions, 5. Assessment Details, 6. Data Collects, and 7. Treatment List. We would be glad to help you design or review a protocol.

Agronomic Research Management (ARM):

We use ARM software to manage your research data. We recommend using ARM software to create protocols and manage research trials. We also use E-study, Excel and proprietary data management systems. ARM data can be converted to Excel if needed. Also, if you have a need for data entry into ARM, we have staff that can assist you.

Common Dates:

Protocols: We would like to review, bid, organize and plan trial placement by February - March.

Seed Related Trials: We would like to have seed and treatment for the following crops by these dates.

Crop	Seed Delivery Date	Location Site	Planting Dates
Alfalfa	April 15th	South Dakota	May 1-May 31st
Cereals	April 1st	South Dakota	April 10-30th
Corn	March 15th	Indiana	April 5-May 25th
	April 10th	South Dakota	April 25-May 31st
Oil Seeds	April 20th	South Dakota	May 1-June 20th
Soybeans	April 1st	Indiana	April 25-June 30th
	April 20th	South Dakota	May 10-June 10th
Sorghum	April 15th	South Dakota	May 5-May 31st

Efficacy Trials: Please provide testing products for trials by March 31st. If you need assistance with determining amounts of test substance, we would be glad to help you. ***If possible, avoid using glass containers for storing test substance.***

Fertility Trials: We would like to have testing products and fertilizers for trials by March 15th. Mixing, measuring, coating, and application takes time.

General Planting and Harvesting: The bulk of planting will happen in April through Early June. The bulk of harvesting will happen September through October. Cereals are harvested from mid-July through August. ***If you would like subsamples of grain, we recommend sending sampling kits and have testing labs selected well in advance of harvest.***

Additional Information:

PLOT SIZE: For yield trials, we encourage customers to utilize a standard plot size of **10 feet by 40 feet**. We understand that crop, test substance amounts and sampling may require a different size plot and we will do our best to accommodate that need.

REP SIZE: Standard REP numbers can help ABG place trials to utilize land and minimize soil variability. We encourage customers to utilize the rep size that will ensure good statistical results. Rarely should less than 3 reps be used, and we recommend 4 or more.

CROP MATURITIES: *The following list is the general range in maturity for crops.*

Crop	Maturity/ Group /Height	Location Site
Alfalfa	2-4 Fall Dormancy	South Dakota
Cereals	early-medium, short to medium height	South Dakota
Corn	105-115 day (108 day optimum)	Indiana
	88-101 day (95 day optimum)	South Dakota
Oil Seeds	early-medium (less than 110days)	South Dakota
Soybeans	2.8-3.4 group (3.2 optimum)	Indiana
	0.5-2.0 group (1.1 optimum)	South Dakota
Sorghum	70-90 day	South Dakota

SEED Trial quantities:

Corn: 34,500 S/A (10x40 plot with 10% overage) 350 seeds per plot.

Soybeans: 140,000 S/A (10x40 plot with 10% overage) 1414 seeds per plot.

Wheat: 1,400,000 S/A (5x40 plot with 10% overage) 7070 seeds per plot.

GROWING DEGREE UNITS: Our Indiana site receives on average 3100-3300 GDU's. Our South Dakota site receives on average 2100-2350 GDU's.

PRECIPITATION: Annual rainfall in Indiana is around 40-45 inches for the growing season. Our annual rainfall for South Dakota is around 15-25 inches for growing season.

COMMON PESTS: *We can inoculate for several of these pests at both locations. We need at least 6 weeks lead time to order and have proper permits in place.*

Indiana Pests

Insect	Weed	Disease
Cut Worms	Common Waterhemp	Cercospora Leaf Blight
Ear Worms	Giant Foxtail	Common Rust
Stalk Bore	Giant Ragweed	Fusarium (Scab)
Western Corn Rootworm	Lambsquarter	Gray Leaf Spot
	Morning Glory	Northern Corn Leaf Blight
	Velvetleaf	Septoria Brown Spot

South Dakota Pests

Insect	Weed	Disease
Corn Aphid	Canada Thistle	Bacterial Blight
Cut Worms	Common Waterhemp	Brown Stem Rot
European Corn Bore	Lambsquarter	Cercospora Leaf Blight
Grasshoppers	Kochia	Common Rust
Northern Corn Rootworm	Marestail	Frogeye Leaf Spot
Pea and Cherry Aphids	Pigweed Species	Fusarium (Scab)
Soybean Aphids	Yellow Foxtail	Northern Corn Leaf Blight
Thistle Caterpillars	Wild Buckwheat	Septoria Brown Spot
Western Corn Rootworm	Wooly Cupgrass	White Mold
Wheat Stem Saw Fly		



Bacterial Blight,



WCR



Insect Trap Crop



WaterHemp/Foxtail

Research Equipment: This is a partial list of research equipment at both our sites:

John Deere 5 and 6 series tractors with Greenstar GPS, 4 row WHITE planters (bulk in-furrow/insecticide) with Precision Planting equipment, 4 row Almaco 360 and SRES planters (packet plots, rate/product treatment in-furrow,) Kincaid 8XP combines with Harvestmaster (Mirus Data Management Software), multiple fertility spreading tools, 3pt mounted sprayers, Hand booms (for walk on spray applications).

Our in-furrow systems are most commonly used at 5 GPA and we can make up to 12 in-furrow applications per trial. We use GPS autosteer guidance (JD Greenstar) on our equipment to give you more accuracy and reproducibility.



DRONE Images: Our sites are equipped with drones and multiple camera platforms. The most frequent use of drones is for collecting NDVI and monitoring crop development.



We look forward to serving you. Please let us know if you have questions or needs that we can help you with.

