

Highlights of the Farm Bureau Big Data Survey – May 2016

Top five concerns for farmers:

- 77 percent of farmers are extremely concerned or concerned about which entities can access their farm data and whether their data could be used for regulatory purposes. This number was 78 percent in the 2014 survey;
- 67 percent of farmers stated that the conditions governing the use and treatment of their data by an outside party is a very important or important consideration to them in deciding which technology or service provider to use;
- 66 percent of producers said it was extremely important or important that they share in potential financial benefits of their data beyond the direct value they may realize on their farm. 25 percent said it was slightly important and only 9 percent said it was not important;
- 61 percent of farmers are extremely concerned or concerned that their data could be used by companies or individuals to potentially influence their decisions in the market; and
- 59 percent of survey respondents don't know if their agreement or contract allows a technology or service provider to use their data to market other services, equipment or inputs back to them.

The survey reaffirms that agriculture's efforts to bring the principles to life has been correctly targeted:

The Ag Data Coalition's mission is to help farmers better control and manage their electronic data and promote innovation and progress in the agricultural marketplace. ADC is developing a farmer-controlled cooperative data repository where farmers can securely store and control the information collected every day in the fields by their tractors, harvesters, aerial imaging and other devices. Over time, that data can be scrubbed, synced and transmitted in an efficient and uniform way to third parties – researchers, crop insurance agents, government officials, farm managers, input providers or anyone else the farmer chooses.

- 71 percent said they were interested in having access to a central data repository that allows them and their service providers to interact on the use and sharing of their farm data – one that also provides them the option to fully control and track those who have access to their farm data. The breakdown is: 9 percent were very interested, 28 percent were interested, 34 percent were slightly interested and 29 percent were not interested. The 2014 survey showed 34 percent were not interested in such a data repository.
- Importantly, 49 percent of farmers said it was extremely important that such a data repository include farmers on its governing board and an additional 33 percent said it was important, for a total of 82 percent.

The Ag Data Transparency Evaluator is a tool that analyzes contract terms and conditions based on a set of ten questions, boiling lengthy contracts down to simple yes or no answers. These allow

producers to quickly and easily determine the answer to many concerns they have about their farm data. The answers provide hyperlinks to the actual contract terms as well, should farmers desire to dig deeper into any particular question. Companies that provide transparent answers to the questions are granted one year's use of the "Transparency Evaluator Seal of Approval."

- For those in the survey who responded that they have signed contracts with companies, 55 percent said the contract does not expressly state that the farmer controls or owns their data. 33 percent said it did state ownership/control and 12 percent said the contract did not.
- For those in the survey who responded that they have signed contracts with companies, only 21 percent said the contract expressly states how their data will be used. 34 percent said they don't have documentation, 38 percent said they weren't sure and 7 percent said the document did not state how the data would be used.
- When asked if they were aware of all the ways a company intends to use their farm data, 79 percent responded no. In a very similar question asked in the 2014 survey, 37 percent said were fully aware or aware of all the ways a company intended to use their farm data, 30 percent were slightly aware and 33 percent were not aware at all.
- For those who said they were aware of all the ways a company intends to use their data, only 32 percent said this sharing with an off-farm company's third party, business partner or affiliate required their prior approval. 54 percent said they were unsure and 14 percent said no, the company did not require a farmer's prior approval. The 2014 survey showed 48 percent said that prior approval was required, 33 percent said no and 19 percent said they were unsure.

Contract Awareness:

When farmers were asked if they had a signed privacy policy, licensing agreement or terms and conditions document with those who collect or store their data, 28 percent said they had never heard of these agreements, and 39 percent said they were aware of the agreements but had not signed any. Seventeen percent said they had agreements with all the entities that have their data, and an additional 16 percent said they have agreements with some of the entities that have their data.

When asked, do you believe additional laws and regulations are needed to protect farmers' data, 38 percent said yes and 33 percent said maybe – for a total of 71 percent.

Benefits of precision agriculture and the use of data:

While not surprising, there is no doubt that most farmers who keep and "use" their farm data believe it benefits their farming operation. Specifically:

- 83 percent said it provides great benefits or benefits in providing information for farm business decisions;
- 76 percent said it provides great benefits or benefits in giving them confidence as a manager;
- 72 percent said it provides great benefits or benefits in increasing their crop yields;
- 67 percent said it provides great benefits or benefits in reducing skips and overlaps in the field;
- 61 percent said it provides great benefits or benefits in increasing their operational efficiency; and
- 53 percent said it provides great benefits or benefits in lowering seed costs.

We are confident this survey is “representative” of U.S. agriculture for major farm commodities and demonstrates useful feedback from those that actually use precision agriculture and some data technology:

- (1) Nearly 400 farmers from 32 states responded. They were geographically dispersed across most of the lower 48 states with the exception of the states in the northeast.
- (2) When asked which two commodities they produced most often, the survey responses are provided below and are compared to 2014 actual U.S. plantings:

Commodity	Plantings	Survey
Corn	34%	27%
Soybeans	32%	28%
Wheat	21%	9%
Cotton	3%	5%
Sorghum	3%	3%
Rice	1%	2%
All Others	6%	26%

- (3) When asked how much acreage they farmed, the survey responses are provided below and are compared to 2012 NASS census data for farms with at least 180 acres of harvested cropland:

# Acres	Survey	NASS Census
Less than 500	36%	50%
500-1000 acres	16%	22%
1,001-2,000 acres	23%	15%
2,001-5,000 acres	19%	10%
More than 5, 000 acres	6%	3%

- (4) Most responders were technology savvy, used and managed the data, and indicated it was important in their farming operation. Specifically:
 - 77 percent said they planned on investing in new or additional data technologies in the next three years. This is up from 50 percent in the 2014 survey, which is notable since most commodity prices were higher in 2014;;
 - 72 percent said the analysis of their farm data was very important or important in allowing them to obtain usable results and information;
 - 75 percent said they or a family member currently managed their data. Only 25 percent of it is managed off the farm; and
 - 79 percent said they (or with the assistance of a service provider) store, archived and/or planned to use historical production information in the measurement of their farming operation.