

**Testimony of
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Before the

U.S. Senate

**Committee on Commerce, Science, and Transportation
Subcommittee on Consumer Protection, Product Safety, Insurance, and Data Security**

Washington, D.C.

November 14, 2017

Technology in Agriculture: Data Driven Farming

Good afternoon Chairman Moran, Ranking Member Blumenthal, and members of the Subcommittee. My name is Todd J. Janzen, I am the president and attorney with Janzen Agricultural Law, LLC, a law firm based in Indianapolis, Indiana that serves the needs of America's farmers, ag technology providers, and agribusinesses.

One of the reasons we founded Janzen Ag Law in 2015 was that we wanted to be at the forefront of the changes that have been occurring on the farm for the past few years. Farms are becoming more digital every day, and together with that digitalization is a movement of agricultural data stored on computers in the farm office to cloud-based data storage devices. Agricultural data (ag data) can be many things, including yield data, soil data, planting information, weather data, financial data, etc. This marks the first time in history that the majority of the information that farmers generate and use on their farms has been moved into the hands of companies outside the farm.

As a result, we are seeing a digital land-rush occurring across the United States. The past few years have seen millions of dollars pour into ag data startups from Silicon Valley, to Kansas City, to North Carolina. Historic legacy agricultural companies, such as John Deere, are also at the forefront of this movement by expanding their product offerings to include cloud-based data storage platforms. All of these companies are scrambling to get the most acres of data into their platforms so that when consolidation of ag technology providers (ATPs) begins, they are in the strongest position.

In the race to the cloud, we must also be cautious so that the American farmer is not left behind. Today I will address the issues facing farmers as digitalization occurs and how the industry has begun to address these issues.

Issues Facing Farmers as Ag Data Moves into the Cloud

American Farm Bureau Federation (Farm Bureau) conducted a poll of over 400 farmers in 2016 to understand their issues concerning ag data privacy, security, and control. The poll highlighted what are essentially three issues that continue to come up when asking farmers about ag data concerns:

1. Lack of Trust

Seventy-seven percent (77%) of farmers expressed concern about which entities can access their farm data after the data is uploaded to cloud-based servers. The same percentage expressed concern about whether uploading the data could cause it to be used for regulatory purposes.

Sixty-seven percent (67%) of farmers said they consider how outside parties will use their ag data when deciding whether to entrust their data with a certain ATP.

A farmer's lack of trust can come from many sources, but I speculate it originates in two places. Many ag data companies are new. Ag data startups lack the goodwill that older agricultural companies have spent years building. They have new sales associates who are strangers to the farm, or in some instances, strangers to agriculture. They are viewed as outsiders.

Older, long-established agricultural companies do not suffer from a general lack of trust with the farmer, since they have spent years building that relationship. But when a seed company, equipment manufacturer, or ag retailer begins offering an ag data platform to store the farmer's ag data, farmers often are skeptical about whether the storage provider is trying to help the farmer raise a better crop or using the ag data to sell the farmer more or higher-priced goods and services. This skepticism may erode a farmer's trust.

2. Concern with Losing Control

Farmers are also concerned that uploading their ag data to cloud-based platforms means they will lose control over downstream uses. Sixty-six percent (66%) of respondents in the Farm Bureau poll believe farmers should share in the potential financial benefits from the use of their data beyond the direct value they may realize on their farm.

Farmers raised concerns that ATPs could use their ag data to gain an unfair advantage in the marketplace. Sixty-one percent (61%) of farmers expressed worry that ATPs could use their data to influence market decisions.

These concerns arise from a fundamental legal truth about ag data—there are no laws that specifically protect farmers’ privacy and security concerns. Ag data is not typically “personally identifiable information,” such that it would be protected by state laws which prevent misuse of personal information like name, address, and phone number. Nor does ag data fit into a class of data that Congress has chosen to protect legally, such as medical information (HIPAA). Finally, ag data does not neatly fit into existing legal protections for intellectual property, such as patents, trademarks, or copyrights. Ag data ultimately may be deemed a trade secret under existing state and federal trade secret laws, but that will depend upon whether courts interpret existing statutes to include information such as agronomic data.

These uncertainties mean that the contracts between farmers and ag tech providers are very important. These contracts will determine farmers’ rights in the ag data their farms create.

3. Frustration with Complexity of Current Legal Agreements

Fifty-nine (59%) percent of farmers were confused about whether current legal agreements allowed ATPs to use their ag data to market other services, equipment, or inputs back to them. Zippy Duvall, president of Farm Bureau, said: “This indicates a higher level of clarity and transparency is needed to secure grower confidence. One of the topics I hear most about from farmers on the data issue is having a clear understanding about the details of ‘Terms and Conditions’ and ‘Privacy Policy’ documents we all sign when buying new electronics. You should not have to hire an attorney before you are comfortable signing a contract with an ag technology provider.”

Our experience as a law firm working in this area confirms that this is a real problem for farmers and ATPs. There is no standard agreement that governs ag data transfer, use, and control by ATPs. Instead, technology companies have adapted other forms of legal agreements to try to address the issues associated with moving ag data into cloud-based platforms, but with limited success. A farmer seeking to compare two similar products today might find that they are governed by two very different sets of contracts.

This only adds to a farmer’s confusion. If we want to make technology easy to embrace and use—and we do—then we need to simplify the contracts farmers sign when implementing new ag data technology on the farm. Contracts that no one reads and understands set the stage for problems down the road.

How the Ag Industry is Addressing Farmers' Concerns

1. The Privacy and Security Principles for Farm Data

Farm Bureau, National Farmer's Union, and national commodity organizations for corn, soybeans, wheat, and sorghum, led an effort in 2014 to establish fundamental principles for companies working in the ag data space. These organizations held a series of meetings where roundtable discussions occurred among industry stakeholders, such as John Deere, CNH Industrial, AGCO, Monsanto, DuPont Pioneer, Beck's Hybrids, Dow Agrosiences, Farmobile, and other ag technology providers. The culmination of these efforts was the drafting of the "Privacy and Security Principles for Farm Data," also known today as ag data's "Core Principles."

The Core Principles address thirteen key elements related to ag data. These include:

- Education
- Ownership
- Collection, Access and Control
- Notice
- Transparency and Consistency
- Choice
- Portability
- Terms and Definitions
- Disclosure, Use, and Sale Limitation
- Data Retention and Availability
- Contract Termination
- Unlawful or Anti-Competitive Activities
- Liability & Security Safeguards

After releasing the Core Principles in 2014, Farm Bureau asked companies to voluntarily “sign on” to the document. As of October 2017, the following organizations and companies have agreed to implement the Core Principles into their contracts with farmers.

AGCO	Farm Dog	National Cotton Council
Ag Connections, Inc.	Farmobile LLC*	National Farmers Union
Agrible, Inc.*	Granular*	National Potato Council
AgSense	Grower Information Services	National Sorghum Producers
AgWorks	Cooperative	North American Equipment
Ag Leader Technology	GROWMARK, Inc.*	Dealers Assoc.
American Farm Bureau Fed.	Independent Data Management	OnFarm
American Soybean Assoc.	LLC*	Raven Industries
Beck’s Hybrids*	John Deere	Reinke Manufacturing Co., Inc.
CNH Industrial	Mapshots, Inc.	Syngenta
Conservis*	National Assoc. of Wheat	The Climate Corporation – a
Crop IMS	Growers	division of Monsanto
CropMetrics	National Barley Growers Assoc.	USA Rice Federation
Dow AgroSciences LLC	National Corn Growers Assoc.	Valley Irrigation
DuPont Pioneer		ZedX Inc.

*Company certified to be Ag Data Transparent. For more information, visit www.agdatatransparent.com

A copy of the Core Principles is attached as Exhibit A.

2. The Ag Data Transparent Effort

Having the Core Principles in place was a great starting point for the ag data industry to address farmers’ concerns with ag data privacy, use, and control. However, the Core Principles are only guidelines, and only valuable if companies incorporate the Core Principles into their contracts with farmers. Therefore, following the release of the Core Principles, several farm groups and industry stakeholders worked together to create an independent verification tool that could help farmers determine if ag tech providers are abiding by the Core Principles. This tool is called the Ag Data Transparency Evaluator. It is a simple three-step process:



- Participating companies must answer 10 questions about how they store, use, and transfer ag data.

- The 10 question answer form is reviewed by an independent third party for transparency and completeness.
- If the evaluation is acceptable, the company is awarded the “Ag Data Transparent” seal of approval for use on its future marketing materials.

Participation is voluntary, but all companies that signed onto the Core Principles have been asked to participate in the Ag Data Transparent effort as well.

a. The 10 Question Evaluation. Here is a list of the 10 questions that each participant is asked to answer as part of the evaluation:

1. What categories of data does the product or service collect from me (the farmer)?
2. Do the Ag Technology Provider’s (ATP’s) agreements address ownership of my data after my data is transferred to the ATP?
3. If the ATP contracts with other companies to provide data related services, does the ATP require these companies to adhere to the ATP’s privacy policies with me?
4. Will the ATP obtain my consent before providing other companies with access to my data?
5. After I upload data to the ATP, will it be possible to retrieve my original complete dataset in an original or equivalent format?
6. Will the ATP notify me when its agreements change?
7. Will the ATP notify me if a breach of data security occurs that causes disclosure of my data to an outside party?
8. Upon my request, can my original dataset be deleted when my contract with the ATP terminates?
9. Do the ATP’s agreements establish how long my original datasets will be retained?
10. Do the ATP’s agreements address what happens to my data if the ATP is sold to another company?

Answers to all questions except for question 1 are “yes” or “no,” but companies are also given space to explain their answer.

b. Reviewing the 10 Question Evaluation.

After an ag tech company completes the 10 question evaluation form, the company submits its answers to an independent third party evaluator to determine compliance. Janzen Agricultural Law LLC is the law firm that has been selected to conduct the evaluations. After reviewing a

company's answers, we typically go back to that company with suggestions for improving its contracts and policies to bring into compliance with Core Principles. Companies then make those revisions to their contracts and policies and resubmit their 10 question form. Once a company's answers align with the Core Principles, we send an official letter designating the company as "Ag Data Transparent" and authorizing use of the seal of approval.

The final, approved 10 question answer forms are posted on the Ag Data Transparent website at www.AgDataTransparent.com. Farmers can research and review companies' answers online. The website requires no log in and is free to use. An example of the home page is attached as Exhibit B.

c. The Ag Data Transparent Seal of Approval

Companies that undergo evaluation and are approved as "Ag Data Transparent" may then use the seal of approval on their websites and marketing materials. To date, nine companies have completed the evaluation and been approved as "Ag Data Transparent." These nine companies are:



- AgDNA
- AgIntegrated, Inc.
- Agribile, Inc.
- Beck's Hybrids
- Conservis Corporation
- Farmobile
- Granular
- GROWMARK
- Independent Data Management LLC

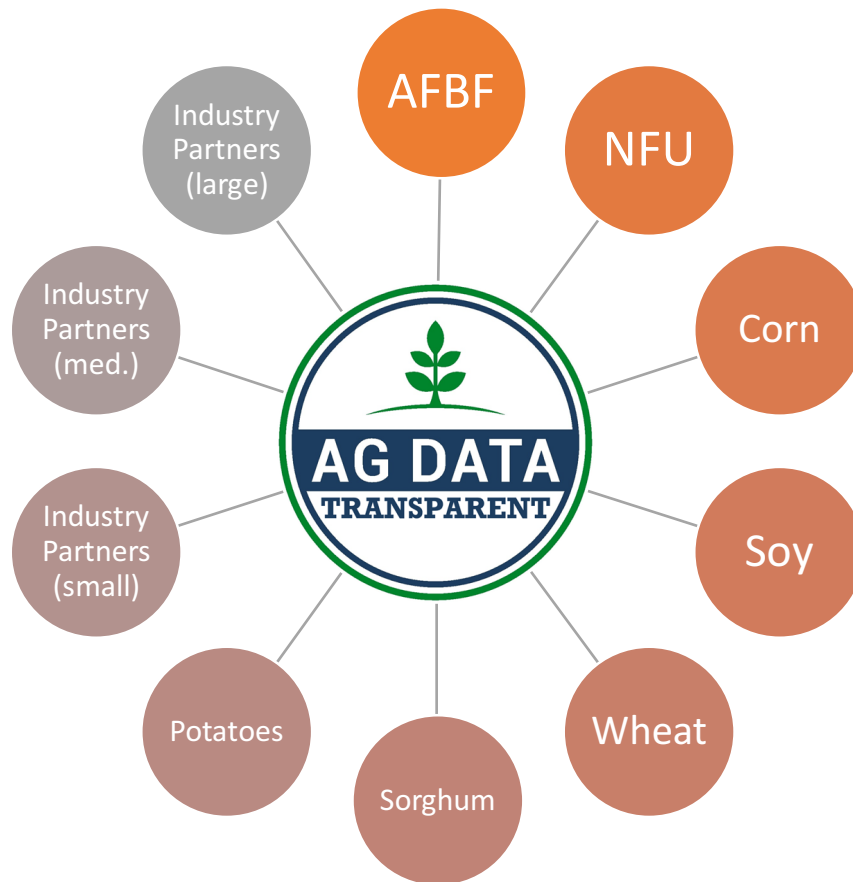
The participants are diverse, from a Silicon Valley ag tech startup, to a Midwestern seed company, to one of the nation's largest farm cooperatives and ag retailers. These companies may use the Ag Data Transparent seal on their websites, denoting their compliance with the Core Principles. Farmers who see the seal of approval will know the company went through the time and effort to certify its contract.

The Ag Data Transparent process addresses farmers' three main concerns with ag data. First, the process instills trust. No company submits its contracts to a voluntary evaluation unless the company is willing to revise its contracts, as necessary, to bring them into compliance with the Core Principles. Second, loss of control is addressed by requiring tech providers to obtain farmer consent before transferring data to third parties. Finally, farmers' complexity frustration

is addressed by condensing all of a tech provider’s contracts into a 10 question form that answers the questions farmers want to know. The Ag Data Transparent process makes contracts better.

d. Who is behind the Ag Data Transparent effort?

The Ag Data Transparent effort is governed by a non-profit corporation, the Ag Data Transparency Evaluator Inc. The corporate bylaws create two classes of directors: (1) farm organizations that are made up of farmer-member organizations; and (2) diverse ag technology providers, referred to as “industry partners.” The farm organizations are American Farm Bureau Federation, American Soybean Association, National Corn Growers Association, National Farmers Union, National Sorghum Producers, National Association of Wheat Growers and National Potato Council. The industry partner board members are ag technology providers ranging from large corporations, medium-sized companies, and ag tech startup organizations.



Janzen Agricultural Law LLC, which serves as the administrator of the program and conducts the evaluation reviews, is not a board member.

3. The Ag Data Use Policy

Our law firm also drafts terms of service, license agreements, privacy policies, and other contracts for ag technology providers. This work has confirmed many concerns facing farmers today when it comes to ag data. We see how companies struggle to communicate clearly how they intend to store, use, and transfer ag data.

For these reasons, we have encouraged companies to draft “data use policies” or “data use agreements” for their farmers. In a typical data use contract, the technology provider addresses all of the issues raised by the 10 questions and the Core Principles. For example, a data use policy will explain what information the provider collects and what permission is required before the provider transfers that data to another party.

From our standpoint, the Ag Data Transparent effort has helped drive more technology providers into creating data use policies. Thus, the effort has paid dividends even for some companies that have not participated in evaluations because it has caused them to rethink how they are contracting with farmers.

Conclusion

The Ag Data Transparent effort is great step towards bringing transparency to ag data contracts between farmers and their technology providers. Wider participation would certainly help the effort, but that is up to the industry. Out of the dozens of ag tech providers with cloud-based platforms on the market today, only nine have completed the certification process. A few companies are in the process of certifying, but uptake could be better.

Farmers should ask their technology providers why they have not earned that Ag Data Transparent seal. This Subcommittee should ask technology providers this question as well when they come before you to testify in future hearings.

Thank you, Mr. Chairman and Ranking Member for your time and attention to this important issue. I look forward to answering any questions you may have for me.

Todd J. Janzen, Janzen Agricultural Law LLC

Exhibit A

Privacy and Security Principles for Farm Data

(Ag Data's Core Principles)

November 2014

The recent evolution of precision agriculture and farm data is providing farmers with tools, which can help to increase productivity and profitability.

As that technology continues to evolve, the undersigned organizations and companies believe the following data principles should be adopted by each Agriculture Technology Provider (ATP).

It is imperative that an ATP's principles, policies and practices be consistent with each company's contracts with farmers. The undersigned organizations are committed to ongoing engagement and dialogue regarding this rapidly developing technology.

Education: Grower education is valuable to ensure clarity between all parties and stakeholders. Grower organizations and industry should work to develop programs, which help to create educated customers who understand their rights and responsibilities. ATPs should strive to draft contracts using simple, easy to understand language.

Ownership: We believe farmers own information generated on their farming operations. However, it is the responsibility of the farmer to agree upon data use and sharing with the other stakeholders with an economic interest, such as the tenant, landowner, cooperative, owner of the precision agriculture system hardware, and/or ATP etc. The farmer contracting with the ATP is responsible for ensuring that only the data they own or have permission to use is included in the account with the ATP.

Collection, Access and Control: An ATP's collection, access and use of farm data should be granted only with the affirmative and explicit consent of the farmer. This will be by contract agreements, whether signed or digital.

Notice: Farmers must be notified that their data is being collected and about how the farm data will be disclosed and used. This notice must be provided in an easily located and readily accessible format.

Transparency and Consistency: ATPs shall notify farmers about the purposes for which they collect and use farm data. They should provide information about how farmers can contact the ATP with any inquiries or complaints, the types of third parties to which they disclose the data and the choices the ATP offers for limiting its use and disclosure.

An ATP's principles, policies and practices should be transparent and fully consistent with the terms and conditions in their legal contracts. An ATP will not change the customer's contract without his or her agreement.

Choice: ATPs should explain the effects and abilities of a farmer's decision to opt in, opt out or disable the availability of services and features offered by the ATP. If multiple options are offered, farmers should be able to choose some, all, or none of the options offered. ATPs should provide farmers with a clear understanding of what services and features may or may not be enabled when they make certain choices.

Portability: Within the context of the agreement and retention policy, farmers should be able to retrieve their data for storage or use in other systems, with the exception of the data that has been made anonymous or aggregated and is no longer specifically identifiable. Non-anonymized or non-aggregated data should be easy for farmers to receive their data back at their discretion.

Terms and Definitions: Farmers should know with whom they are contracting if the ATP contract involves sharing with third parties, partners, business partners, ATP partners, or affiliates. ATPs should clearly explain the following definitions in a consistent manner in all of their respective agreements: (1) farm data; (2) third party; (3) partner; (4) business partner; (5) ATP partners; (6) affiliate; (7) data account holder; (8) original customer data. If these definitions are not used, ATPs should define each alternative term in the contract and privacy policy. ATPs should strive to use clear language for their terms, conditions and agreements.

Disclosure, Use and Sale Limitation: An ATP will not sell and/or disclose non-aggregated farm data to a third party without first securing a legally binding commitment to be bound by the same terms and conditions as the ATP has with the farmer. Farmers must be notified if such a sale is going to take place and have the option to opt out or have their data removed prior to that sale. An ATP will not share or disclose original farm data with a third party in any manner that is inconsistent with the contract with the farmer. If the agreement with the third party is not the same as the agreement with the ATP, farmers must be presented with the third party's terms for agreement or rejection.

Data Retention and Availability: Each ATP should provide for the removal, secure destruction and return of original farm data from the farmer's account upon the request of the farmer or after a pre-agreed period of time. The ATP should include a requirement that farmers have access to the data that an ATP holds during that data retention period. ATPs should document personally identifiable data retention and availability policies and disposal procedures, and specify requirements of data under policies and procedures.

Contract Termination: Farmers should be allowed to discontinue a service or halt the collection of data at any time subject to appropriate ongoing obligations. Procedures for termination of services should be clearly defined in the contract.

Unlawful or Anti-Competitive Activities: ATPs should not use the data for unlawful or anti-competitive activities, such as a prohibition on the use of farm data by the ATP to speculate in commodity markets.

Liability & Security Safeguards: The ATP should clearly define terms of liability. Farm data should be protected with reasonable security safeguards against risks such as loss or unauthorized access, destruction, use, modification or disclosure. Policies for notification and response in the event of a breach should be established.

The undersigned organizations for the Privacy and Security Principles of Farm Data as of April 1, 2016.

AGCO
Ag Connections, Inc.
Agrible, Inc.*
AgSense
AgWorks
Ag Leader Technology
American Farm Bureau Federation
American Soybean Association
Beck's Hybrids*
CNH Industrial
Conservis*
Crop IMS
CropMetrics
Dow AgroSciences LLC
DuPont Pioneer
Farm Dog
Farmobile LLC*
Granular*
Grower Information Services Cooperative
GROWMARK, Inc.*
Independent Data Management LLC*
John Deere
Mapshots, Inc.
National Association of Wheat Growers
National Barley Growers Association
National Corn Growers Association
National Cotton Council
National Farmers Union
National Potato Council
National Sorghum Producers
North American Equipment Dealers Association
OnFarm
Raven Industries
Reinke Manufacturing Co., INC.
Syngenta

The Climate Corporation – a division of Monsanto
USA Rice Federation
Valley Irrigation
ZedX Inc.

*Company that has also certified its policy is compliant with the Ag Data Transparency Evaluator. For more information, visit www.agdatatransparent.com

Exhibit B

Ag Data Transparent Homepage

AG DATA TRANSPARENT

[ABOUT US](#) [CORE PRINCIPLES](#) [TRANSPARENT COMPANIES](#) [MEDIA](#) [SUPPORTERS](#) [FAQ](#) [CONTACT US](#)

Is Your Tech Provider Ag Data Transparent?

[View Ag Data Transparent Companies](#) [Certify Your Company](#)

Machine Operation

Water

TRANSPARENCY, SIMPLICITY, TRUST

The Ag Data Seal of Approval

The Core Principles Behind the Ag Data Transparent Seal

10 Questions Determine Compliance with Our Core Principles

How Companies Can Obtain the Ag Data Transparent Seal

www.AgDataTransparent.com