

# Midwest Farmowner

News & Information from Soy Capital Ag Services

## UAVs Expand Farm Management Options

About 20 years ago, the farming industry was introduced to a breakthrough technology that many felt was too expensive and would never take off. Fast forward to 2017, where a majority of the machinery planting, spraying and harvesting is now equipped with some sort of Auto-Steer technology. History is being repeated with Unmanned Aerial Vehicles (UAVs).

Early experimentation with UAVs can be likened to the “Wild West.” The Federal Aviation Administration (FAA) did not have guidelines in place to permit or hinder certain activities. Many stories hit the news about people losing control of UAVs and they would land or crash in an unwanted area -- most notably, the White House. Legislation has now been implemented creating a license criteria and rules regarding UAV operations.

Since taking flight, people have been utilizing the abilities of UAVs in various ways: construction crews can inspect towers, bridges and dams more easily; film crews can use multiple cameras to get the “perfect” angle; and sports fans may recall the latest Super Bowl halftime show, where floating lights were actually 300 synchronized UAVs.

Putting UAVs to use in agriculture is exciting. Farm managers find it is much easier to fly than walk to the back of a 160-acre field of tall corn to inspect problem areas. Another common use is ag real estate companies enhancing the marketing of a farm with a bird’s eye view of the property. Some companies use high-powered cameras with NDVI technology to detect variations in crop health throughout the field. Similar technology is used in fields with growing crops to



*Soy Capital uses drones to help market farms with a bird's eye view of the property. UAVs also can point out crop health variations, potential drainage and watershed issues.*

photo courtesy of Illinois Soybean Association

provide survey data for potential drainage and watershed issues. In other countries, UAVs even have been equipped with chemical systems and are used to spray crops.

Soy Capital farm managers are up to date with the latest UAV technology and the wide variety of applications available. With two, in-house licensed Commercial Remote Pilots, we are able to legally perform flights. While our UAVs are primarily used to help market farm properties, we will use it elsewhere when needed. Though nothing beats the “boots on the ground” method of scouting, this technology is another tool in our arsenal.

For questions or information regarding UAVs, contact Ross Perkins at 309-665-0059. **MF**

Inside: Soy Capital Stays on Top of Drainage Issues

## Soy Capital Ag Services

# Bloomington Managers Earn AFM Designation



V. Ross Albert



Ross Perkins

**V** Ross Albert and Ross Perkins, both farm managers in Soy Capital Ag Services' Bloomington, Ill., office, recently were awarded the Accredited Farm Manager (AFM) designation from the American Society of Farm Managers and Rural Appraisers (ASFMRA).

Albert and Perkins earned their AFM designations by meeting stringent requirements in experience and education, in addition to passing rigorous oral and written examinations and abiding by the American Society's Code of Ethics. They join a select 45 percent of the ASFMRA membership who have received the accredited status and currently maintain it through the ASFMRA continuing education program.

"By receiving this designation, clients, associates and other individuals in the industry can more easily recognize Albert's and Perkins' personal investment in their career and a dedication to maintaining an exceptional degree of knowledge and skill," says Michael Krause, AFM and the American Society's national president.

Accredited Farm Managers are specifically educated and experienced in agricultural management. They understand efficient production and profitable marketing by focusing on procedure, analysis, critical thinking and innovation. Farm managers have specialized expertise in production, business, environmental issues and government activities. AFMs possess additional specialized expertise and are connected to a national network of professional resources and information for comprehensive knowledge.

"We are dedicated to supporting our managers to obtain the training and professionalism required to serve our clients," says Brian Thompson, Soy Capital Ag Services president. Farm managers Justin Wheeler from Decatur, along with Drew Wright and Sean Riordan from the Kankakee office, are beginning educational coursework toward their AFM accreditation. **MF**

## Soy Capital Helps Navigate Drainage Issue for Landowner

**W**hen a neighboring industrial and commercial site in central Illinois had plans to divert storm sewer water onto the surface of the farmland of a Soy Capital Ag Services farm management client, Mark Smith stepped in to see how he could help. Smith has provided the group of landowners with farm management services for about six years.

"Mark informed and educated us that cooperating with storm water discharge plans could benefit the neighboring site and our farm," says Robert Williams, attorney, founder of Williams and Swee, Ltd., and one of the landowners. "Mark's fundamental knowledge of Illinois drainage law, and its applications in agricultural settings, provided us with a valuable foundation of advice. Thankfully, his quick reaction helped us address the problem before the final engineering plans were approved. There is no doubt that a mutually developed drainage plan could help maintain the value of our land."

Smith learned that when the neighboring site was developed some 15 years ago, the watershed issue needed further consideration. Further development of the neighbor's drainage today could allow for a better solution to protect the farm for future generations.

"With this type of issue, it is easier and less costly to be proactive rather than reactive," says Smith. "It is important for us to protect



Proper farm drainage is critical to maximizing field productivity, as well as helping protect water quality.

USDA-NRCS

our landowners' rights and work to find a solution beneficial to all parties concerned, rather than address the implications later if drainage challenges are not considered up front."

Landowners with questions about drainage issues can contact Mark Smith in Soy Capital's Bloomington office at 309-665-0053 or [msmith@soybank.com](mailto:msmith@soybank.com). **MF**

# Planter Improvements Help Maximize Production Potential

People involved with farming in the 1970s and 1980s may remember the first planter monitor as a loud box with blinking lights. The series of lights represented each row, while each light indicated whether seed had dropped to the ground. When one of the rows stopped dropping seed, farmers got a visual and audible indication. Consistent seed failure, dust, debris or other interferences would trigger the monitor to let farmers know visually when seed was not planting. It also would bellow out a noise that was something between an ambulance and tornado siren.

In the late 1990s and early 2000s, electronic and guidance technology continued to improve. Companies began to invest in planter monitor technology, recognizing the importance of seed depth, seed placement, down pressure, and seed spacing to final yield. Ultimately, equipment was created to do a better job of planting seed at multiple levels, including these six:

**Improved Meters** – Better meters increase seed spacing accuracy for more consistent plant spacing throughout the field. New meters also have improved singulation, measuring the amount of times a seed skip or double planting occurs. Improved spacing and singulation enhances yield by reducing competition between plants, increasing sunlight interception and establishing more plant root-to-soil contact for better nutrient and water uptake.

**Downforce** – Improvements in planter downforce are addressed with air and hydraulic systems. Downforce is the amount of pressure pushing each row unit into the ground. Having the correct amount of downforce reduces sidewall compaction in the seed trench and maintains seed depth. Sidewall compaction can cause the seed trench to open up and restrict root growth and nutrient uptake. Maintaining seed depth establishes uniform plant emergence and growth. Plants only a few growth stages behind can quickly become weeds instead of viable crops.

**Planter Drives** – Historically, a wheel driven by the ground as the planter moves through the field has been the power used to spin seed meters and drop seed into the trench. Ground drive systems are slowly being replaced with hydraulic and electric drive systems. These systems allow for improved population and seed drop control and variable rate seeding. Electric and hydraulic motors spinning the meters improve the accuracy in correlation to speed of the planter, as well as make it easier to start and stop meters at headlands and field edges.

**Seed Tube** -- The accuracy of measuring seed drop and the efficiency of seed moving from the meter to the seed trench during seed drop also has improved. Sensors that measure the seed dropping through the tube have improved accuracy and ability to recognize seed versus dust and debris. The latest advancements involve conveyors that carry seed between the meter and the ground to eliminate bounce in the seed tube which can ruin seed spacing at higher speeds.



Equipment companies continue to invest in planter monitor technology as the importance of seed depth, seed placement, down pressure and seed spacing to final yield, is recognized.

Photo courtesy of AGCO

**Multi-hybrid** – New systems installed on planters allow for operators to switch between hybrids without stopping and cleaning seed out of planters. Research shows certain hybrids do better on certain soil types. Most of the time, a field contains several soil types. A multi-hybrid technology allows specific hybrids to be planted on specific soils or in specific conditions.

Like most new technology, these improvements are being adapted at different levels, with some producers still doing a great job of planting with technology from the 1970s and 1980s. New technologies listed here give farmers more capabilities to monitor what is going on with the planter, plant faster and more efficiently, and spend less time checking or physically adjusting the planter for varying situations. If you have any questions on planter advancements, contact Drew Wright at 815-936-8975 or [dwright@soybank.com](mailto:dwright@soybank.com). MF

## Illinois Farmer Inventor of Early Monitors

Early planting monitors were the creation of farmer Bob Dickey from Chatham, Ill. They were named for Bob and were known as Dickey-John monitors. Bob came up with the idea after an unfortunate accident caused him to lose sight in his right eye.

Even though early monitors were fairly archaic, they were a much-needed improvement above watching the seed fall to the ground or digging after every planter pass. Since Bob's invention in 1966, planter technology has come a long way. But the general principle is still based on Bob's original struggle of trying to better understand what he could not see. MF



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