

AgGuide

AGRICULTURE NEWS & TRENDS



Farming and Drones

One glance toward the sky on a technologically advanced farm in America shows first-hand how far we have come. Farmers are using unmanned aerial vehicles — drones — as key pieces of equipment.

According to the Association for Unmanned Vehicle Systems International, agricultural drones are expected to make up 80 percent of the future commercial market. Drones can be used to spray crops, collect key field-related data and make farms more efficient.

This new focus on flying objects as useful agricultural tools marks an exciting time for the modern farmer.

HOW DRONES WORK

Operators can send drones on specific aerial tracts over all portions of farmland. Specific goals may include using high-resolution imaging to uncover the areas most in need of advanced pest control or fertilizer. Drones can help farmers target these areas with more efficient processes, helping them save money and resources that they may have otherwise not been able to conserve.

Drones also can help farmers count overall field yields down to the plant. Knowing how well a specific crop is performing can help farmers lessen their use of common fertilizers, such as nitrogen, herbicides and insecticides. This can lead to healthier land and waterways in surrounding areas.

REGISTRATION PROCESS

Given the fact that they



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require the use of airspace, drones are regulated by the Federal Aviation Administration. The agency has implemented a streamlined, web-based registration process for unmanned aerial vehicles used

by business owners and farmers.

You can register at faa.gov/uas/registration. The registration process is simple, and you'll need to provide only basic information, such as

your name, home address and an e-mail address. When you complete the registration, the system generates a Certificate of Aircraft Registration and Proof of Ownership that includes a unique identifica-

tion number. This number must be marked on the aircraft.

Why register? Penalties can equal as much as \$27,500 for an unregistered drone, according to the FAA.

Become a Better Farm Manager

Running a successful farm is about more than operating equipment and tending to your fields.

It's about operations management, team leadership, budget control and continuous improvement. You also need skills in sales, relationship building and business development. It is this collection of strengths that help differentiate a good farm from a great one. Read on for our three ways to become a better farm manager.

1. USE AN ACCOUNTANT

Your farm business will fail quickly if your numbers aren't in order. And the financials are where many farmers find themselves in the weeds. Consider hiring a professional accountant to keep your books. Doing so will ensure total accuracy for your profit and loss statement, as well as what you report to the government in wages, insurance costs and other variables.

Work closely with your accountant to evaluate costs and revenues to make stra-



tegic decisions on payroll, equipment purchases and land investment. Having a good sense of your numbers can help you manage your farm more efficiently and confidently.

2. HIRE THE RIGHT PEOPLE

One of the tipping points between a marginally successful farm and one that is raking in heavy profits is the hiring dilemma. Should you on-board employees? If so, how many? How do you go about finding professionals who meet your specific needs?

Start with finding reliable and honest employees who are willing to work as hard as you. Advertise your job announcements in your local newspaper or other media source. This will create local demand to work at your farm and will show the community that you are a growing source of agricultural products.



Interview potential employees and make sure to check references to gain an understanding of your candidates' work background.

3. SAFETY FIRST

Operating a successful farm also is dependent on safety.

The Occupational Safety and Health Administration offers the following tips on how you can foster a safer farm environment, which will lead to higher morale and productivity in your workforce:

- Read, follow and enforce instructions in equipment operator's manuals and on product labels.
- Routinely inspect equipment for problems that may cause accidents.
- Discuss safety hazards and emergency procedures with your workers.
- Install approved rollover protective structures, protective enclosures, or protective frames on tractors.



Choosing Equipment

Depending on the acreage of your farm, choosing the right equipment can be a numbers game. Equipment that is too small can hinder your progress in the field, while oversized machinery can be too expensive.

The key to toeing the line between equipment that is too small or large for your farm is understanding your specific needs.

WHERE TO FIND EQUIPMENT

Before you settle on your next equipment purchase, first determine whether you will be buying new or used. Check your local newspaper for ads from equipment dealers and head to your local farm auctions. You may be able to find a quality used item that could save you thousands of dollars in the long run compared to buying new.

Lean on your local farming association or organization, as well. Other farmers are your best friend when it comes to finding out the best types of equipment, fair market value and sellers trying to unload their equipment. Find farmers who are operating farms at sizes comparable to yours. This approach can be the most practical way to start the buying process.

NEGOTIATE YOUR PURCHASES

Let's say you opt for a used two-row cultivator from your local machinery dealer. Remember that buying farm



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equipment is just like buying a car — you should never play full price. Don't be afraid to pull out your negotiation skills to get the best deal possible.

If a dealer is offering numerous rebates and discounts on new machinery, ask what they can do to help your final price on used

equipment. It always counts to research ahead of time to see what price range your equipment will likely fall into. Always stick with your budget goals, even if negotiating is required.

SPREAD OUT YOUR PURCHASES

If you plan to buy multiple

pieces of equipment, it may make the most sense to spread out your purchases over time. This can not only lessen the financial burden, but also can make it possible to find various deals throughout your buying cycle.

Farmers just starting their operations should plan to buy basic equipment initially

and save the specialized items for the future, once the business has been established. Have a good understanding of your farm's strategies in regards to which crops you will grow and what kind of work is required on the land. This will help you prioritize your equipment purchases.

Succession Planning

You've worked your whole life to build a successful agribusiness. Sweat, blood, tears and long hours have accompanied you on this journey. That's why handing over the keys to the next generation may be bittersweet.

With the right succession plan, you can make the transition a painless one. Succession planning is the process of formally transitioning management of your farm business from one generation to the next. This can mean an outright sale to a younger family member or a phased plan that involves you remaining in the business on a part-time or consultative basis.

There is no universal plan that will work with every family. The secret to building a strong succession plan is involving key family members in the decision and working through all major facets of it to ensure everyone is on the same page.

WHY SUCCESSION PLANNING IS IMPORTANT

Succession planning allows your family to keep the business running in the manner that makes the most sense for all involved parties. It helps longtime owners transfer the ownership of the business on their terms, and also enables successful handling of legal, tax or family relationship issues that may come along with the transition.

The first step to creating your succession plan involves regularly meeting with family



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members, tax professionals and legal advisors. Have open discussions about goals, methods and decisions and let all voices be heard.

If you've kept your operational procedures under wraps over the years, it's time to let others in on your activi-

ties. Doing so will position the next generation for success, which is the ultimate goal of a succession plan.

WHAT TO INCLUDE

A comprehensive succession plan contains several dynamic parts, meaning they

can be changed over the years as the situation calls for. The most important components of any well-built succession plan include:

- Legal language spelling out the processes related to ownership and transfer of assets.

- Financial matters including salaries and retirement incomes.

- Federal, state and income tax matters, including the impact of any gift tax or transfer taxes.

- Business entity selection and formation.

Recovering from a Flood

As an agricultural professional, your eye is constantly set to the sky. Weather-watching is one of the most critical activities for any farmer because of its massive impact on the success of your year.

That's why major weather disasters such as the extreme flooding the country saw at the beginning of 2016 poses such a headache for farmers. Fortunately the federal crop insurance program provides coverage for 254 million acres in the United States, with more than half devoted to corn and soybeans.

Farmers can also count on the Risk Management Agency, which administers the program under the guidance of the Federal Crop Insurance Corporation. The program is a partnership between the federal government and 15 private insurance companies to ensure coverage, specifically for affected producers operating in flood-prone river basins.

FLOODING ISSUES

Flooded soils create significant challenges for agricultural lands. According to the Risk Management Agency, flooding has many direct impacts on farmland including:

- Deposition of sand and debris on productive lands;
- Erosion of agricultural soils; and
- Flooded soil syndrome, defined as the loss of beneficial fungi that mobilizes soil-based plant nutrients.

Farmers dealing with flooding areas may face major yield losses and the destruction of their land. What can be more frustrating is the slow process required for arable soils to fully recover from an impactful flooding event.

POST-FLOODING MANAGEMENT

There are many steps to recovering from flooding, the first of which includes the removal of sediment and debris barriers that may have built up. Depending on the severity of the weather event, not all fields can be reclaimed. Removing debris and surveying the damage will give you an insight into how successful you will be in restoring your land.

Other steps include repairing the physical damage to the soil, stimulating microbial activity and limiting the indirect impacts that can occur down the road.

If you're not sure where to focus your attention after a severe weather occurrence, check in with your local agricultural consultant or extension staff at your local university. These professionals will be able to provide information about various methods and available financial assistance for your efforts.





Conservation Easements

As a cornerstone program of the landmark 2014 Farm Bill, the Agricultural Conservation Easement Program provides financial and technical assistance to help conserve agricultural lands and wetlands.

The National Resources Conservation Service provides financial assistance to eligible partners for purchasing easements that are reserved to protect their agricultural and conservation values.

This is of vital interest to farmers because it helps preserve grasslands and rangeland that may otherwise be compromised.

So who qualifies as an eligible partner? The NRCS has determined that eligible partners are Indian tribes, state and local governments and non-governmental organizations that have farmland or grassland protection programs.

BENEFITS OF EASEMENTS

Land protected by agricultural land easements ensures the longevity of productive working lands,

while also providing additional public benefits, including environmental quality, historic preservation, wildlife habitat and protection of open space.

Additionally, wetland reserve easements provide habitat for fish and wildlife. This can include threatened and endangered species. This preservation of valuable wetlands helps improve water quality by filtering sediments and chemicals, reduce flooding, recharge groundwater, protect biological diversity and provide opportunities for educational, scientific and limited recreational activities, according to the NRCS.

WHAT QUALIFIES AS AN EASEMENT?

The United States Department of Agriculture defines easements

as follows:

Permanent easements: Conservation easements in perpetuity, for which the NRCS pays 100 percent of the easement value for the purchase of the easement. Up to 100 percent of restoration costs also can be covered by the program.

30-year easements: Expiring after 30 years, these easements are protected by the NRCS, which pays 50 to 75 percent of the easement value for the purchase of the easement. Up to 75 percent of restoration costs are covered.

Term easements: Allowed for the maximum duration allotted under applicable state laws. The NRCS pays 50 to 75 percent of the easement value for the purchase of the term easement and up to 75 percent of restoration costs.

30-year contracts: The program offers 30-year contracts for acreage owned and enrolled by Indian tribes.

Wetland reserve easements: The NRCS pays all costs associated with recording the easement in the local land records office, including recording fees, charges for abstracts, survey and appraisal fees and title insurance.

HOW TO APPLY

Looking to enroll your land in the agricultural land easement program? Eligible partners may submit proposals to the NRCS state office to acquire conservation easements on eligible land.

To enroll land through wetland reserve easements, landowners may apply at any time at their local USDA Service Center.

Working With Farm Animals

Many farm animals, including cattle, goats, sheep, swine and poultry, can carry germs such as salmonella or E. coli that can make you sick.

Even if they appear healthy, animals can carry bacteria that can easily contaminate their fur, feathers, skin or any surrounding areas with which they come into contact.

So how can you make sure your health is protected when working so closely with such dangerous germs? Perhaps more importantly, how can you protect your children while at the same time teaching them the rewards and value of working with animals?

AT-RISK PEOPLE

Anyone can get sick from farm animals, but some people are more likely to have a serious illness, according to the CDC, including:

- Children younger than 5 years of age;
- Adults 65 years of age or older;
- Pregnant women; and
- People with some illnesses (such as cancer) that weaken immune systems.

PREVENTION TIPS

The CDC offers the following tips to help prevent illness from farm animals:

- Wash your hands thoroughly with soap and water right after touching farm animals or anything in the areas where they live and roam.
- If soap and water are not



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available, use an alcohol-based hand sanitizer that contains at least 60 percent alcohol.

- Supervise children younger than 5 years of age if they

handle or touch farm animals or animal areas and equipment.

- Keep your food and drinks away from farm animals and out of animal areas.

• Keep animals away from areas where food or drink is prepared, stored or consumed, including kitchens and outdoor patios.

- Have a set of dedicated

shoes or boots, gloves, coveralls or other work clothes that you use just for working in animal areas. Remove them as soon as possible after leaving animal areas.