

FALL Farm & Ranch



A Checklist for Winter

Veteran ranchers know at least one truism: you can't control Mother Nature.

But you can prepare for the known issues that occur each season. And while you can't safeguard for the extremes the weather might bring, stocking up for the approaching winter season is always a smart plan.

As with any plan, preparing a checklist in advance will help you ready your ranch and prepare you, your family and your livestock, land and equipment for the coming cold weather. The experts at Beef Magazine put together this general checklist to get you started.

Stockpile forages: Take an inventory of feedstuff available. Haul hay stacks home. Order extra loads to have a good stockpile on hand.

Check waterers: Make sure you have parts and light bulbs for those electric waterers. A heater or two would be useful for stock tanks. A spare hose and float are always good to have on hand, as well.

Add insurance with additional power sources: If the ranch loses electricity, icy or snow-packed roads could delay power companies from restoring your electricity. Do you have a generator or two on hand to power waterers, refrigerators, heaters or equipment?

Fuel up: Make sure you have plenty of gasoline, pro-



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pane and diesel on hand to fuel tractors, generators and trucks.

Stock the pantry: Ranching families need fuel, too, to get through a cold spell. What do you have on hand in your pantry that could be prepared quickly and possibly without a heat source?

Take an inventory of your

animal health and calving supplies: A cold front can be stressful on livestock, resulting in sick animals. It can also cause cows to start calving earlier than expected. Are you ready to treat illness or take care of a surprise calf or two? Check your calving supplies and medicine cabinet to make sure you have things on hand

in an emergency.

Check with the neighbors: Do you have elderly neighbors who might not be able to handle the harsh weather in a bad storm? What's their plan, and are you close and available to help in the event of bad weather? Can you help them fill hay feeders and prepare for the storm ahead of time?

Consider those around you, as well as your own family, to keep everyone safe during inclement weather.

Watch the weather closely: Don't let a blizzard catch you by surprise. Prepare now and keep an eye on the forecast to ensure your ranch survives and thrives through every blizzard or cold spell this winter.

Benefits of Agritourism

As an industry, agriculture offers no guarantees. But there are ways to help ensure farms and ranchers remain solvent during lean times. Increasingly, many are turning to agritourism to diversify and add value to their enterprises.

As more Americans discover the farm-to-table movement in stores and restaurants, their interest in visiting the source has also increased. Touring farms and ranches helps them understand agriculture and horticulture and the operations behind them. Some also take part in farming or ranching activities; others simply find the experience an illuminating and educational day out.

But creating a new revenue stream is only one of the benefits of agritourism. Here are more.

Planting a seed: Besides the extra income, farmers and ranchers who've taken the plunge into agritourism as a side business find the extra effort valuable because they get to advocate and dispel myths and stereotypes. They also get to make the connection between the people who produce the agriculture products people rely on every day and their efforts to protect land and livestock.

New jobs and businesses: Launching an agritourism business may encourage other farms and ranchers who also want to reap the rewards. In turn, a developing agritourism landscape may have the potential to reverse negative economic trends by creating new jobs. Local businesses may also benefit and new ventures may arise.



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Not just tours: With diversification into agritourism, many operations find their successes lead them to expanding from tours and activities to such options as creating a “life-on-the-farm” experience. Others might recognize the value in renting facilities for weddings or other events.

Festivals: A large farm or ranch, or a group of farms and ranches, can create bona fide seasonal festivals that combine many of the popular elements of agritourism such as tours and traditional farming activities with local vendors and live music.

Community involvement: Agritourism is not only a boon to farms and ranches, but can also provide bene-

fits to the surrounding community or communities. Community involvement can help increase visibility through marketing efforts. The full participation of the community in planning tourism is essential to a successful program.

However appealing these benefits and the possibility of additional income, not all farmers and ranchers are prepared for the downsides: modest returns, interference with the main farm operations, loss of privacy, increased responsibilities, labor needs and liability risk.

As with any business, it's smart to assess your capabilities, gauge your interest and dedication to the effort and form a plan. If you decide to make the

leap into agritourism, here's a brief list of tips to help get you started:

- Assess your assets, beginning with your inventory with what you already have;

- Evaluate your marketplace and identify your potential buyers;

- Evaluate the technical feasibility of your prospective business;

- Evaluate the financial feasibility of your prospective business;

- Develop a business and marketing plan;

- Take into account any “right to farm” related issues that will affect your business; and

- Take advantage of tourism industry resources.

Dealing with Predators

Despite the many advancements in technology and agriculture — from genetics to health, productivity and profitability — farms and ranches face one constant: predators.

Whether they be human rustlers or animal invaders, the plague of predators affects every operation.

“Ranchers in these parts are still dealing with predators, especially coyotes,” said Russell Hessler, a south Texas rancher, in a recent issue of *Farm Progress*. “I have lost calves to coyotes, as have most of the ranches in Victoria County, and all of us, farmers and ranchers, are having to deal with feral swine rooting up fields and pastures.”

While local and state organizations, such as parks and wildlife departments, attempt to aid ranchers with the problems of predators, it is farmers and ranchers who must keep daily vigilance over their land and livestock. Most producers will shoot predators found during daylight, but predation often happens at night — and predators are smart and can often outwit hunters and traps.

FENCING

One of the most practical and best ways to protect against predators is, of course,



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to fence them out. According to an article in *Hobby Farms*, fencing is always a farmer’s best friend and there are many types to choose from. Here’s just a few examples the magazine recommends:

Tall, woven-wire fencing buried partly in the ground will prevent predators from jumping over and burrowing under. An electric strand at the top will keep raccoons and opossums, which love to climb, from getting over.

An electrified net, portable fence can be effective against many critters — raccoons, opossums and foxes — but persistent dogs and coyotes

can jump 5 feet or higher, right over the fence.

High-tensile, electric-wire fencing with strands spaced 6 inches at the bottom graduating to 12 inches at the top so predators cannot squeeze through is another option.

Fladry is a wire fence with long, red flags hanging at 18-inch intervals which can be effective against wolves, particularly if it’s moved regularly.

GUARDIAN ANIMALS

One way ranchers are combating the plague of predators is with guardian animals. Bill and Nicolette Niman, ranchers in northern California, have

used guardian animals for years to protect their ranch from predators and have come to rely on them.

The mere presence of the guardians, the Nimans told *The Atlantic* magazine, offers a significant deterrent to potential predators. Because of the advantages of guardian animals, the Department of Agriculture reports they have become common across the United States.

While dogs are the most common guardian animals, the Nimans have also used llamas to guard their goats. Llamas are vigilant protectors of herds and flocks, the Nimans report. They

also have the added benefit of eating natural vegetation, so they don’t need additional feed.

Unfortunately, many find these individual methods of thwarting predators useful for only part of the problem.

“The National Wildlife Center recommends a combination of tools: fencing, guard animals, trapping, shooting, deterrents,” Peter Orwick, executive director of the American Sheep Industry Association in Centennial, Colorado, told *Tractor Supply*. “Fencing alone won’t do it. Fencing is limited by terrain, and too many predators can dig under, climb over, or smash through.”



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The Farm of the Future

The challenges of farming and ranching are myriad. But so are the techniques and innovative spirit farmers and ranchers bring to the calling.

Still, some question whether their efforts are just sustaining their livelihoods for the present instead of preparing the long haul.

For a birds-eye view, AgWeek magazine recently took stock of the six forces poised to change the industry. Here's the highlights from the results of those findings.

CONSOLIDATION

It's no secret farms are in decline; that's been the case since the 1930s. But while the average size of farms has increased, the amount of land in agri-

culture has remained flat. The last Census of Agriculture reported that of the 2.1 million farms in the United States, only 15% are at-scale production farms. These farms also control 80% of acreage. That figure will decrease to 100,000 production farms, experts predict, with 5% of farms producing 75% of output.

PSYCHOLOGY

Agriculture debt — some \$410 billion in 2018 — is at its highest level since the 1980s, data reveals. Many farmers question their viability if these trends continue. Operating profitability is declining as loans become harder to repay. According to figures amassed by Aimpoint Research, nearly 60% of farmers were concerned about their ability to deal with debt.

TECHNOLOGY

It's no surprise that young people are interested in and have an affinity

for technology, but an increasing number are also interested in agriculture and how these two fields can converge. According to the USDA, some 69% of young farmers will have college degrees and return to farms determined to shake up the status quo by utilizing new technology. Even older farmers are embracing technology as they see competitors do so and themselves falling further behind the curve.

CONSUMERS

Price, healthiness and freshness are the top factors driving consumer decisions when it comes to agriculture products. Because consumers are the center of gravity when it comes to change in agriculture, what they perceive is changing the industry. Some of those factors — non-GMO, organic, locally produced foods — are perceived as better than the alternatives. Whether producers know these beliefs

to be true or not, retailers are responding.

MARKETS

Even while commodity prices are low, farmers continue to increase production due to the growing world population. Analysts predict a 70% increase in food supply will be necessary to meet those needs — especially in South America, which experts predict will become the breadbasket of the future.

GOVERNMENT

The Congressional Budget Office projects the 2018 Farm Bill, which traditionally provides support for many farmers and rural areas, will cost \$428 billion over the next five years. Besides funding issues, trade policy also has a direct effect on operations. Agriculture exports are expected to fall \$141.5 billion this year as a result of the trade war. Other top issues include labor and regulatory reform.

Tech's Role in Equipment

As technology marches on at a dizzying pace, farms and ranches are not immune. Many of the advancements, especially in new equipment, are designed to help producers to achieve more efficient results than ever before.

If you're in the market for new equipment or if you're just interested in what's new, the Farm Bureau Financial Services identified several new trends in agriculture technology you'll soon find available.

PLANTING AND HARVESTING

Smart Ag, an agriculture tech company, has developed new software it calls AutoCart. The system allows you to monitor and control a self-driving grain cart, allowing a tractor to become fully automated and the cart it's pulling to follow. Using the technology, you can be confident your work was being done as efficiently as possible.

DATA AND NAVIGATION

The concept of connecting any device to the internet, known as the Internet of Things, extends to farm equipment. Agriculture tech firms have developed sensors with



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image recognition capability that allow you to view crops anywhere. The data they collect enables you to make changes in water and nourishment immediately. Similar devices can be added to equipment to track the health of the machine itself, in addition to GPS capability, yield mapping and harvest documentation, significantly reducing downtime.

ROBOTICS

Automation has long assisted in the more tedious aspects of manufacturing. But combined with robotics, this tech-

nology can increase productivity, producing faster and higher volume yields. Among the players in farm robotics is equipment giant John Deere, which recently purchased a start-up that concentrates on spraying and weeding. Other systems in the works include laser and camera guidance, as well as plant-transplanting and fruit-picking robots.

MACHINE LEARNING

Identifying which traits and genes are best for crop production is the focus of machine learning and analytics, which

could assist farmers worldwide in predicting which breeds are best for their location and climate. These algorithms are also useful to consumers, who can see which products are popular resulting in more successful farming forecasts.

OTHER ADVANCEMENTS

According to Coastal Farm stores, several other advancements in farm technology should not escape modern operators. Oregon State University is propelling developing the digital farm of the future using such technologies

as drones, fiber-optic cables and the use of radio frequencies. Each of these systems is designed to help farmers and ranchers make the best decisions possible based on real-time data.

Smart collars are also poised for advancements. While the tech has been around for a while, development continues to make it easy to track fertility, activity, feed intake, stress and illness. In a related area, camera systems have been developed to monitor broods of chickens to decrease problems using predictive models.

From Veteran to Farmer

Military veterans just returning to civilian life or those who've served and are seeking new career opportunities can look to farms and ranches, where they can put their valuable skills and work ethic to use.

As the USDA notes on its website directed at recruiting veterans considering farming, being a farmer means you'll get the opportunity to be an entrepreneur, equipment repair specialist, soil scientist and land steward all rolled into one. If you're a veteran and you'd like to entertain a career in agriculture or agribusiness, there are many resources available.

EMPLOYMENT

The USDA is looking to military veterans across the country to fill the roles that keep America's food supply safe and secure, preserve and strengthen rural communities and restore and conserve the environment. The department itself offers many opportunities for veterans in farming at one of its more than 2,100 county offices across the country, or at its headquarters in Washington, D.C. In addition, the USDA partners with organizations to offer apprenticeships to veterans to gain on-the-job training.

EDUCATION

According to a recent Purdue University study cited by the USDA, there are thousands of jobs in agriculture and agribusiness that remain unfilled because there aren't enough graduates with expertise in food, agriculture renewable natural resources



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or the environment. But obtaining a degree is just one way to gain knowledge and experience in farming. Student farms offer veterans an alternative route by receiving training firsthand in a variety of agriculture practices.

SUPPORT

The USDA's support of veteran farmers doesn't end with education and employment. If you're considering starting a farm there's also plentiful resources to back you, including connecting you with financial, educational and training resources, and business planning support.

For those veterans from rural com-

munities who wish to return to their roots, the USDA also offers support to entrepreneurial veterans who want to strengthen and develop rural communities through starting or growing a business. These include help with more than 40 loan, grant and technical assistance programs that you can use to get started.

OTHER ORGANIZATIONS

Veterans Healing Farm: This North Carolina organization aims to serve veterans by offering workshops on innovative farming techniques and foster a thriving micro-community of veterans and civilians who build deep friendships and cultivate emotional,

physical and spiritual health.

Veterans to Farmers: The mission of this Colorado group is to assist veterans to assimilate effectively, productively and permanently into private citizenry through agricultural training and education. Veteran classmates work alongside each other, learning new skills and experiencing the grounding effects of the farm.

Farmer Veteran Coalition: Headquartered in Davis, Calif., the coalition seeks to cultivate a new generation of farmers and food leaders, and develop viable employment and meaningful careers through the collaboration of the farming and military communities.

Highlights from the Census

The U.S. Department of Agriculture released the results of the 2017 Census of Agriculture in April. The report spans 6.5 million new points of information about America's farms and ranches and the people who operate them.

Since the last census in 2012, the report notes that both farm numbers and land in farms continue to decline by small percentages. Additionally, there continues to be more of the largest and smallest operations and fewer mid-sized farms, with the average age of all farmers and ranchers continuing to rise.

Here are some key highlights from the latest census:

There are 2.04 million farms and ranches (down 3.2% from 2012) with an average size of 441 acres (up 1.6%) on 900 million acres (down 1.6%).

The 273,000 smallest (1-9 acres) farms make up 0.1% of all farmland while the 85,127 largest (2,000 or more acres) farms make up 58% of farmland.

Just 105,453 farms produced 75% of all sales in 2017, down from 119,908 in 2012.

Of the 2.04 million farms and ranches, the 76,865 making \$1 million or more in 2017



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represent just over 2/3 of the \$389 billion in total value of production while the 1.56 million operations making under \$50,000 represent just 2.9%.

Farm expenses are \$326 billion with feed, livestock purchased, hired labor, fertilizer

and cash rents topping the list of farm expenses in 2017.

Average farm income is \$43,053. A total of 43.6 percent of farms had positive net cash farm income in 2017.

Ninety-six percent of farms and ranches are family

owned.

Farms with internet access rose from 69.6% in 2012 to 75.4% in 2017.

A total of 133,176 farms and ranches use renewable energy producing systems, more than double the 57,299 in

2012.

In 2017, 130,056 farms sold directly to consumers, with sales of \$2.8 billion.

Sales to retail outlets, institutions and food hubs by 28,958 operations are valued at \$9 billion.