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AG CONNECTION

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Roth 401(k) – Roth IRA on Steroids

The need for personal retirement planning and investing is increasingly capturing the attention of Americans – it's about time! If you are at that age where you are closer to the end of your working years than the beginning, you're probably spending more time thinking about how you'll pay for those golden years.

Roth IRAs are a popular retirement savings vehicle that has been available since 1997. Roth IRAs can offer several advantages for individuals or couples with adjusted gross income less than $99,000 and $156,000, respectively. For the 2007 tax year the maximum contribution amount to a Roth IRA is $4,000 ($5,000 if age 50 or older). Since 2006 workers have an opportunity to participate in a super-sized Roth retirement vehicle – a 401(k) Roth. Here is how the 401(k) Roth is super-charged – first, there is no maximum adjusted gross income limit as there is with the Roth IRA and second, the annual contribution limit for 2007 is $15,500 or $20,500 if age 50 or older. If you are over 50 and trying to build a retirement nest-egg as quickly as possible, the difference in the maximum annual contributions of $5,000 versus $20,500 is gigantic.

Both types of Roth accounts foster the tax-free growth of investment funds while providing more flexible withdrawal rules. While Roth IRAs and the new 401(k) Roth offer some attractive features, they will not always be the best investment vehicle for everyone in every situation.

Some of the interesting features of Roth IRAs and the 401(k) Roth are:

- if held for five years or more, the distribution of gains will be tax-free – however you must be 59½ or older to avoid the early withdrawal penalty on the gains
- withdrawals of your contributions are always tax and penalty free;
- contributions are based on earned income and can be made at any age, even after age $70\,^{1}/_{2}$
- the owner is not required, regardless of age, to take distributions from the Roth account.

The Roth accounts can be excellent vehicles for accumulating retirement funds. The longer the time period the Roth is held - the better. In fact, Roth accounts would be excellent assets to be "passed on" to the surviving spouse and/or other heirs. This is due to the extended potential compounding time period without any federal income tax liability in your hands and that of your heirs and because Roth accounts will not be considered income in respect of decedent (as with most traditional IRA and pension accounts). Heirs of traditional IRA accounts have to report distributions from a traditional IRA as income, just as the original owner would have – this is not the case with Roth accounts.

In addition to employees, this new 401(k) Roth could be an excellent retirement vehicle for farmers and other business owners. Many business owners invest nearly all of their disposable income into growing their business – only to realize as they enter their late 50's and 60's that they have limited funds stashed away for retirement (unless they are willing to sell their business). If you like the concept of the Roth IRA – opting to super-size with the 401(k) Roth could be an excellent vehicle for enhancing your retirement funding.

Author: Parman R.Green, Ag Business Management Specialist

Heat and It's Effect on Livestock

Heat has an effect on all of us. We need to particularly think about the effect heat has on livestock and what we can do about it. Livestock experience impaired functions as a result of excess heat. These can be drop in production, increased days open, depressed immune system, and decreased fertility.

Animals have a different ideal temperature than humans do because of the heat they generate and they don't have the ability to turn on a fan like humans do. For example, the ideal temperature range for a dairy cow is between 25º F. and 65º F. At a temperature above 80º F., a reduction in feed intake may be seen. At temperatures over 90º F., cows may reduce feed intake and milk production may drop. Temperatures of 100º F. and 80% relative humidity may be fatal to dairy cattle.

Animal species vary in their ideal temperature range so be sure to check your livestock carefully as hot weather arrives. Sometimes, the first heat wave can be the most harmful to livestock as they often adapt after the first one and later heat waves don't affect them as much.

In very hot weather, animals lose most of their heat by evaporative cooling. Most evaporative cooling is from the lungs. Some sweating and evaporative skin cooling occurs with horses and to a lesser extent with cattle and hogs. Hot weather ventilation is important to prevent excessive temperatures in buildings.

Other things that can help increase animal comfort are:

- Circulation fans to increase air velocity across the animals
- Spraying water on the animals
- Air conditioning and earth tube heat exchangers
- Evaporative cooling of ventilating air
- Shade

Let's take a closer look at these items.

Circulation fans: These help distribute inlet air and provide higher air velocities across animals. They can be especially helpful on still days. Circulating fans should be placed throughout the building with a spacing of 25 times the fan diameter. Direct the airflow downward toward the animals. Fan motors should be sealed. Be careful that fan blades don't create slow moving shadows when used in poultry buildings. The shadows can be interpreted as predators.

Spraying water: The best sprinkler systems wet the animal and then allow the moisture to evaporate. A thermostat connected in series with a timer can regulate the operation of the sprinklers. Sprinklers should deliver droplets large enough to wet a cow's skin, not produce a fog. Care should be taken to ensure that sprinkler systems do not create mud holes. Swine can be cooled with drip cooling systems.

Air conditioning or earth tube heat exchangers: These are fairly high cost investments and may be considered for the long term. The corrosive atmosphere in animal units prevents recirculation of treated air. This causes more costs in air conditioning air than we would see in a home system. More information is available from MU Extension.

Evaporative cooling of ventilating air: Evaporative coolers can be used in some cases. They provide air movement through the evaporative unit. This results in several degrees of cooling of ventilating air. The evaporative unit is a fibrous pad that water is pumped through.

More information on cooling livestock can be obtained from your local University of Missouri Extension Center.

Authors: Don Day, Natural Resource Engineer; Mark Stewart, Livestock Specialist

Farm and Ranch Emergency Preparedness

Emergency planning is one of those things that everyone says they should do, but somehow never quite get around to accomplishing the task. Denial ("That will never happen to me/us/here.") is probably the main reason people avoid this task. This is unfortunate, because disasters happen. Look at Greensburg, KS.

Seemingly even more remote, is the chance of a Foreign Animal Disease (FAD) outbreak, such as Foot and Mouth Disease. The impact of such a situation, whether naturally caused or as a result of a terrorist act, is almost to contemplate. For example, consider that the initial control area from a premises with a suspected FAD is 12.4 miles (20 kilometers) from the borders of the premises. This is the size of the area that initially needs to be quarantined in an attempt to isolate and control the spread of the disease. The more information you can provide to first responders, the quicker the situation can begin to be controlled. The faster a bad situation can be contained, the better off everyone will be.

Here are some things for you to consider for your emergency plan. These 12 steps are taken from UM Extension publication MP745 "Plant Biosecurity Preparedness Plan for U.S. Agricultural Producers": http://extension.missouri.edu/explore/miscpubs/mp0745.htm

- Post emergency response phone numbers and contact list.
- Complete a risk assessment checklist.
- Create maps and records of your operation.
- Enhance your crop scouting and pest management skills.
- Post visible address numbers and safety signage.
- Sponsor an emergency responder's tour of operation and training event.
- Meet with your insurance agent.
- Conduct emergency response drills with employees, neighbors, frequent visitors and family members.
- Evaluate, revise and update your preparedness plan.

- Involve others in preparedness planning.
- Use your risk assessment checklist to identify mitigation activities.
- Assemble your plan in a notebook for emergency responders.

The publication will guide you through the process of compiling the necessary information and includes sample forms you can use. Much of this information will be valuable in the case of either a natural or man-made disaster.

Keep in mind that many first responders may not have any experience with or knowledge about the type of equipment found on a modern farm. They may not have experience around livestock, either. For these reasons, detailed maps of buildings, chemical and fuel storage, wells, etc. are particularly critical. A tour of your operation for emergency personnel would also be helpful. You may learn as much from them as they learn from you.
Author: Gene Schmitz, University of Missouri Extension Livestock Specialist

Foreign Animal Diseases

In the United States, Missouri is ranked in the top ten for cattle and calves, hogs and pigs and turkeys. If a foreign animal disease event (FAD) occurred in Missouri, there would be a huge economic impact to animal agriculture. What exactly is a FAD event and how does that relate to agroterrorism? How much do you as a producer understand about FAD's and agroterrorism?

Foreign animal diseases include foot and mouth disease and avian influenza. They are not necessarily spread by agroterrorists, but can be introduced accidentally. According to the International Association of Emergency Managers, on any given day in the US, over 1.3 million people and over 38,000 animals enter the US. Also, FAD's can be introduced through the migration or movement of wildlife and even through the natural occurrences of disease. Despite how FAD's are introduced the disease response will remain the same. The only difference between a natural occurrence and a terrorist act is that if the FAD is determined to be a terrorist action the FBI will coordinate activities with animal health officials.

In 2001, United Kingdom producers lost entire herds of cattle, sheep and hogs due to foot and mouth disease. Thousands of animals were destroyed and sixty farmers committed suicide during this tragedy. Producers should realize FAD's will not just affect animals; it will affect them as well.

Agroterrorism is meant to destroy economies and make people feel more vulnerable—it has nothing to do with the actual animals that will be affected. Agricultural targets are not limited to animals or plants but can also include: transportation systems, water supplies, grain elevators or other storage facilities, restaurants and food handlers, grocery stores, food and agriculture research labs, and packing and food processing facilities.

Animal diseases make good terrorism agents because they are low tech, low-cost and have a high impact. They also spread rapidly from animal to animal and are difficult to trace. US agriculture is considered a "soft target" because of the difficulty to maintain biosecurity at all points from farm to table. A nationalized ID program on cattle, sheep, goats and swine would increase biosecurity in this country.

Joplin Regional Stockyards is an example of how many states could be affected if a FAD occurred. In one day, during certain times of the year, cattle sold through the facility can be shipped to 26 states! Imagine if a FAD was introduced, how this would impact those 26 states! Producers know their animals better then anyone and if ANYTHING looks remotely suspicious, producers need to call the local veterinarian! That is why it is so important for producers to get involved with the agroterroism prevention process.
Author: Wendy Flatt, Livestock Specialist

Armadillos Among Us?

Armadillos moved into the U.S. in the mid 1800s. They found their way in to central Arkansas in the mid 1970s and mid Missouri in the last few years. Even though they do not tolerate cold weather well, they continue to spread northward. Armadillos range as far north as southern Nebraska. It is believed they will eventually be found along the east coast at latitudes at least equal to ours.

Reports of armadillo damage have increased so University of Missouri Extension has published a guide sheet: G 9456, Armadillos in Missouri: Techniques to Prevent and Control Damage. This guide is available at County Extension Centers or via the Internet at: http://extension.missouri.edu/explore/agguides/wildlife/g09456.htm.

Damage is usually more of nuisance rather than being economic. If control is necessary, the process may be problematic. Fencing to exclude them must be angled outward and buried since they can climb as well as burrow and swim. Modifying the habitat around the damaged areas may work. Reducing insect numbers, cleaning up debris and brush and installing electric fencing may make problem areas less attractive.

Armadillos are nocturnal. They use their strong, front digging legs to find insects, worms and other invertebrates. The tracks have three toes with long claw impressions. Often the damage, holes, is all that can be seen. By the time we arrive, they have gone underground in their burrows to rest during daylight hours.

A burrow is usually about 7 to 8 inches in diameter and up to 15 feet long. Damage in gardens, flower beds and lawns are pit like holes from a few inches to 5 inches in diameter. Areas may appear to have been "rooted" up by hogs. They may install burrows under foundations, driveways and other structures.

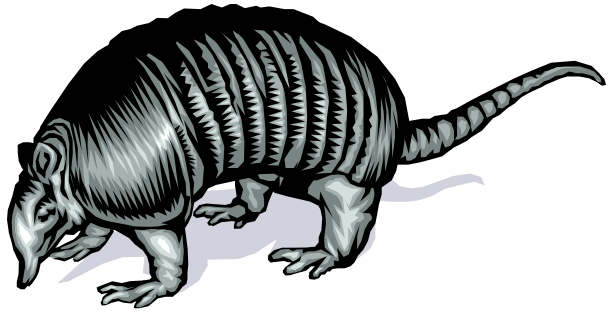
Water presents little resistance to their migration. They can walk across the bottom of streams by holding their breath for as long as 6 minutes. By filling their stomach with air, they can float and swim across rivers or lakes.

Trapping can be one of the more effective methods of control. Larger live or box traps work if placed along paths to burrows or fences where armadillos travel. Boards 4 to 6 inches tall and 6 feet long can be used as "wings" to funnel them into the live trap. Baiting the trap is not absolutely necessary. But over ripe or spoiled fruits, meat or fresh meal worms can be effective.

Selective shooting works where it is legal. It is a night time activity so extreme caution must be observed. Just finding the armadillos out of their burrow and moving around requires vigilance and patience.

There are no poisons or repellants registered for use against armadillos at this time.

Author: Jim Jarman, Agronomy Specialist



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