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Safety is Essential When Operating an ATV

As the temperatures continue to climb, one might be finding themselves wanting to enjoy the outdoors by riding an ATV (All-Terrain Vehicle) around the farm. All-Terrain vehicles are becoming increasingly popular on farms because of their utility. They can be used to haul livestock feed or transportation to the field. As they have increased in popularity on farms, accidents and injuries to youth and adults have increased. This coincidence reveals the importance of riders understanding all the ATVs safety precautions.



It is important to realize ATVs come in different sizes and one must fit the ATV to the rider's size. For adults, there are sport and utility ATVs, and for younger riders there are three different categories. The youth categories are designed for smaller hands and feet, and travel at slower speeds appropriate for their age. Every ATV manufactured by members of the ATV Safety Institute (atvsafety.org) will have a warning label, clearly stating the minimum age of the rider. This label is affixed so it can easily be read by the rider when seated in the proper operating position.

Even if the rider is older than 16, he/she may not have the skills, strength, or maturity to operate that size of an ATV, making it important that you assess your situation individually to ensure you get the proper size for the rider.

All ATV riders need to have the maturity to understand what safety equipment should be worn. The first priority for all riders should be to wear a properly fitted ATV helmet. There are helmets on the market that are made specifically for ATV riders because they have the proper amount of face protection and have the ability to absorb energy on impact. Bicycling, skateboarding, and rollerblading helmets are not acceptable safety equipment for ATV riders. In addition to having a helmet, the rider should wear some form of eye protection. The eye protection may be attached to the helmet or may need to be purchased separately. If it is not attached, an ANSI-approved pair of goggles with hard-coated polycarbonate lenses should be purchased. Other safety equipment to be worn includes gloves, boots, long pants, and a long sleeved shirt.

Not all safety precautions associated with ATVs are associated with equipment. For instance, all riders should understand and accept the fact that it is not safe to carry a passenger. All-Terrain vehicles are equipped with a single seat and when carrying a passenger, it prevents the driver from being able to shift their weight correctly when making turns. Additionally, there is nothing on the ATV for the passenger to hold onto to prevent them from being thrown off the ATV. Even if the ATV has a double

seat it is still not recommended to ride with a passenger.

No ATV should ever be operated on a paved surface such as a public road because of the safety of non-ATV riders traveling the road. Additionally, ATVs are not designed to travel on paved roads and can be hard to control when on pavement. Likewise, going over jumps, climbing or going down steep inclines, driving through high water, and making sharp turns at high speeds are all maneuvers that are unsafe on ATVs and increase the likelihood of getting injured. Whether or not all ATV riders understand and follow the above suggestions, it is still a good idea for all riders to be supervised because both youth and adults can fall victim to an ATV accident. It is recommended all riders complete an ATV rider course.

Source: *Kent Shannon, ag engineer*



Understanding Beef Yield and Quality Grades

The terminology of quality grade and yield grade are often used interchangeably to describe cattle, but the terms differentiate the two carcass traits. Beef producers, and those thinking of entering value-added beef enterprises, need to recognize the difference and how each is utilized in the cattle industry. Knowledge of how quality and yield grades are applied may increase profitability.

Yield grades equate to an estimate of the percent retail yield of the four primal cuts of beef including the chuck, rib, loin and round. The following traits are used to determine yield grade:

- ▶ Backfat thickness (BF): When determining carcass yield, back fat carries the most influence. A USDA grader will determine the total thickness of fat based on the total fat of the carcass.
- ▶ Ribeye area (REA): The ribeye area consists of muscle situated between the 12th and 13th ribs. This area is noted in square inches and typically measures between 11 and 15 square inches.
- ▶ Kidney, pelvic and heart fat (KPH): The estimated percentage of kidney, pelvic and heart fat is the internal fat around these organs. Typically, most carcasses host anywhere from 1.5 to 4.0 percent.
- ▶ Hot carcass weight (HCW): The hot carcass weight consists of an uncooled carcass minus the

hide, head and all internal organs. In most fed cattle, this dressing percentage will be approximately 63 percent of the live cattle weight.

There are five USDA yield grades from 1 to 5. A yield grade of 1 offers the largest amount of beef, whereas a yield grade of 5 offers the least. Through yield grades, individual animal value is determined and thus profitability is impacted. Producers can utilize these USDA yield grades to market their cattle.



Purchasers of beef tend to be more familiar with quality grade as it relates to palatability (eating experience) of meat. Included in this is flavor, juiciness and tenderness. This is expressed through eight quality grades.

- | | |
|-------------|---------------|
| 1) Prime | 5) Commercial |
| 2) Choice | 6) Utility |
| 3) Select | 7) Cutter |
| 4) Standard | 8) Canner |

These grades impact prices at both the producer and consumer level. Typically, beef that grades prime, choice and select are utilized in retail and restaurants. Lower grades of beef are most commonly used in further processed products, such as canned soups and frozen meals. Quality grade is determined by marbling (intramuscular fat) and maturity (physiological age).

Producers who understand yield and quality grades are better equipped to make decisions about genetics, nutrition, health and production practices, as well as product marketing.

Source: *Jason C. Morris, ag business specialist*



Inspection vs. Grading

USDA employs both *graders* and *inspectors*. Inspectors work for USDA's Food Safety and Inspection Service (FSIS) while graders work for Agricultural Marketing Service (AMS).

Inspectors are responsible for inspecting live animals, carcasses, internal organs and the head. They also evaluate beef, byproducts and the facility for safety, cleanliness and wholesomeness.

Graders evaluate carcasses for quality and cutability. Graders are also responsible for certifying various USDA Certified programs such as Certified Hereford Beef or Certified Angus Beef.

University of Tennessee Institute for Agriculture

Managing Heat Stress in Cattle

As summer temperatures rise, cattle producers should watch for signs of heat stress in their herds. Cattle cannot dissipate heat very effectively compared to other animals, and so are more susceptible to heat stress. They rely primarily on respiration to cool themselves because they do not sweat efficiently. While on pasture, cattle will seek shade to cool themselves. When cattle are in closely confined areas such as trucks, holding pens, and feedlots, or areas without shade access, they are more likely to become stressed.

Heat stress can occur any time the temperature-humidity index is above 80, or if night time temperatures consistently remain above 70 degrees. Early warning signs include restlessness and decreased feed intake. If stress continues, respiration increases and cattle will begin to pant and slobber. Long term effects include decreased weight gain and reduced fertility. Producers should watch for signs of heat stress and be prepared to intervene if necessary.

While the summertime heat is unavoidable, the following measures can be used to lessen the impact in the herd.

- Be sure cattle have access to plenty of water, as intake will increase during heat stress. Cows need about two gallons of water for every 100 pounds of body weight during the summer. Lactating cows need about twice that amount.
- Provide plenty of shade. Plan for 30-40 square feet per cow.
- If possible, feed cattle in the evening to decrease heat produced from digestion. Normal digestive processes and fermentation in the rumen creates body heat, peaking several hours after consumption.
- Avoid working cattle in extreme heat. Core body temperature peaks approximately two hours after peak environmental temperature and returns to normal four to six hours later.
- If cattle must be worked, begin in the morning as soon as daylight allows and take care to keep handling as low stress as possible.

Source: [*Jenna Monnig, livestock specialist*](#)

July Gardening Tips

Ornamentals

- ◆ Continue to pinch mums until mid-July. Pinching later may delay flowering.
- ◆ Deadhead perennials (remove dead flowers) that have finished blooming.
- ◆ Prune climbing roses and rambler roses after bloom.
- ◆ Spider mites may be a problem during hot, dry weather. Leaves will become speckled above and yellowed below. Evergreen needles will appear dull gray-green to yellow or brown.
- ◆ Water newly planted trees and shrubs thoroughly at least once a week, if rain has not been plentiful.
- ◆ Fertilize trees and shrubs by July 4. Late fertilizing may cause lush growth that is more prone to winter kill.
- ◆ Black Spot may be a problem on roses. Remove and pick up infected leaves and spray fungicides as needed.
- ◆ Lilacs may get powdery mildew. It is rarely harmful and shrubs grown in full sun are less susceptible.
- ◆ Divide irises now.

Vegetables

- ◆ Blossom end rot of tomatoes and peppers may become a problem. Maintain soil moisture, and do not let soils dry out. Place a layer of mulch 2-3 inches thick around plants.
- ◆ Keep weeding! Prevent weeds from going to seed.
- ◆ Dig potatoes when the tops die. Plant fall potatoes by July 15th.
- ◆ Harvest onion and garlic when the tops turn brown.
- ◆ Keep cucumbers well-watered. Drought conditions will cause bitter fruit.
- ◆ Sow seeds of carrots, beets, turnips, and radishes for fall harvest the last week of July. Also set out broccoli, cabbage, and cauliflower transplants for the fall garden at this time.

Fruit

- ◆ Protect grapes from birds!
- ◆ Prune out old fruiting canes of raspberries after harvest.
- ◆ Apply second spray to trunks of peach trees for peach borers.
- ◆ Early peach varieties ripen now.
- ◆ Blackberries will begin to ripen soon.

MU Pest Management Field Day (*in person*)

July 8, 2021

Bradford Research Center, Columbia

Fee \$20

To register call: 573-884-7945

<https://ipm.missouri.edu/IPC/2021/6/fieldDay2021-MB/>

Turf

- ◆ Water lawns frequently enough to prevent wilting. Early morning irrigation allows turf to dry before nightfall and will reduce the chance of disease.
- ◆ Monitor lawns for newly hatched white grubs. If damage is occurring, apply appropriate controls, following product label directions.

Pests

- ◆ Blossom-end rot of tomatoes and vine crops is a common occurrence as summer gets into full swing. Control squash vine borers early before they do serious damage.
- ◆ Japanese beetles will continue to cause damage the first part of the month but will then taper off.

Resource: *Missouri Botanical Garden*

MU Field Days

Aug. 3 - Greenley Research Center Field Day
Novelty, MO

Sept. 14 - Forage Systems Research Center Field Day
Linneus, MO

Oct. 2 - Missouri Chestnut Roast
New Franklin, MO

For more information <https://cafnr.missouri.edu/calendar/>



*Happy Independence
Day July 4th*