Cattle transitioning to wheat require acclimation period

by Bryan Nichols / bmNichols@noble.org and Corey Moffet / camoffet@noble.org

One scenario that producers may be faced with in cool-season stocker cattle production is whether or not to continue grazing with a set of cattle through graze-out or to sell these cattle and replace them with lighter calves. An observation that has been made when turning cattle out on lush wheat pastures is that a transition occurs in which cattle may only maintain or even lose weight for a period of time. We also observed this in calves at the Noble Foundation following wheat pasture turnout in 2013.

Figure 1 shows daily weight data collected using a GrowSafe Beef system. This data shows that it took 10 days after turnout for the cattle to reach their original turnout weight. The red line in the figure depicts what the daily body weight would be if the cattle were gaining 2 pounds per day. It shows that it took 21 days for the cattle to reach an overall growth rate of 2 pounds per day. Before Day 21, overall performance was less than this, and after Day 21,
From this study, three take-home points can be gleaned:
1) An acclimation period of at least seven days is necessary for cattle grazing wheat pasture. However, becoming acclimated does not equate to positive weight gain. Positive weight gain may require more time.
2) The acclimation period is likely shorter in the spring compared to fall and may be influenced by the size of cattle.
3) Cattle previously acclimated to grazing wheat may continue to outperform cattle that are naive to wheat, but this difference is likely to diminish over time.

The goal of selling heavier cattle and replacing them with lighter cattle is to increase profits. This is generally done by capturing a greater value of gain typical for lighter cattle and/or increasing pounds of gain per acre. The costs associated with this decision such as receiving costs, marketing costs, labor, etc. must also be accounted for. If using this strategy, a potential difference in performance when introducing naive cattle to wheat pasture should be considered.

**ECONOMICS**

**New crop insurance option protects producers**

by Jon T. Biermacher / jtbiermacher@noble.org, Josh Maples / josh.maples@okstate.edu and B. Wade Broersen / wade.broersen@okstate.edu

The U. S. Department of Agriculture (USDA) established the Rainfall Index Annual Forage Plan (RIAFP) in May 2013. The program offers catastrophic risk (CAT) and/or buy-up coverage (BC) to producers who annually plant crops used for livestock feed or fodder, including grasses and mixed forages such as ryegrass and sorghum-sudangrass, and small grains like wheat, rye and oats. The forage insurance program relies on a rainfall index that is calculated using weather data collected by the National Oceanic and Atmospheric Administration and is designed to insure against declines in the index in each 0.25 degree latitude by 0.25 degree longitude grid. Premiums for CAT are subsidized 100 percent by USDA. Plus, producers have the option to purchase subsidized BC coverage for which they are required to pay only a portion of the premium.

Participation in RIAFP requires producers to make a series of choices that influence their premium cost and coverage level. First, the producer must choose the growing season. Growing Season 1 means the crop is planted between July 15 and Dec. 15 and has available index intervals from September through March. Growing Season 2 means the crop is planted from between Dec. 15 and July 15 with available index intervals from March through September. Producers can double crop and receive indemnities for two growing seasons within a year if they can prove they have double cropped for the past two years.

Additional choices that a producer must make include: 1) the value per acre of their forage production, which is accomplished by choosing a productivity factor to adjust the producer’s respective county base value provided by the USDA for each county within the participating states, 2) the coverage level (trigger index level) and 3) which rainfall indices to use in terms of months and the percent of value to allocate to these indices. These choices are used to determine the cost of the producer’s BC premium, the value of a potential indemnity payoff, and the value of the subsidy that the producer receives. For example, if the actuarially fair premium total cost is $2.16 for $21.60 of coverage per acre, the Federal Crop Insurance Corporation pays a 51 percent subsidy so the producer only pays $1.06 per acre for the insurance. In general, higher productivity factors and coverage levels lead to higher premiums, higher potential indemnity payoffs and lower subsidy levels in terms of percent of premiums.

Research using long-term forage experiments at the Noble Foundation found little correlation between the rainfall index and ryegrass forage yields, so the RIAFP may not do much to reduce risk. However, because the insurance premiums are highly subsidized, profit-maximizing producers are encouraged to sign up for the program at the maximum levels allowed, as long as this does not affect their eligibility for other programs. In particular, producers should be aware that CAT coverage is not available if the forage is intended for grazing purposes. That is, it is not possible to enroll in CAT coverage through the RIAFP and enroll for coverage in the Livestock Forage Disaster Program (LFDP). Therefore, only acres planted for hay production can get the 100 percent subsidized CAT coverage offered by the RIAFP. Forage planted for grazing can be protected with BC insurance, but the producer is required to pay a portion of the premium. Forage producers are eligible to sign up for BC with the RIAFP while also signing up for coverage through LFDP. Moreover, wheat produced for grain (even if grazed) does not qualify for crop yield protection if those acres have been insured through RIAFP.

Producers interested in learning more about the details of this forage insurance program are encouraged to contact their crop insurance agent or read about the program online at: www.rma.usda.gov/news/2013/05/annualforage.pdf. In addition, an online decision tool has been developed to aid producers with the choices involved with this program. The tool can be found at: http://af.agforceusa.com/ri.

Please note that producers who are interested in the program need to sign up for the program by July 15 for crops planted in the fall of 2015, and Dec. 15 for crops planted next spring (spring of 2016).
Early management promotes healthy pasture

by Hugh Aljoe / hdaljoe@noble.org

The spring growing season is at hand. Therefore, it is time to develop management plans for our warm season pastures. Developing a pasture management plan now ensures the most optimal outcome for this growing season. The following is a list of considerations pertaining to pasture management to assist in developing a management plan.

1. Establish introduced pastures such as bermudagrass and old world (introduced) bluestem varieties during the early growing season. For hybrid bermudagrass varieties, the best time to plant is late winter or early spring, prior to spring flush (certainly by mid-April if possible). Tifton 85 bermudagrass is the exception; it needs to be planted after it breaks dormancy in the spring. Plant seeded bermudagrass varieties and old world bluestems according to species recommendations in the spring after the last frost of the year. Apply needed amendments such as lime, phosphorus and potassium at planting, and be prepared to control weeds in new stands. Apply nitrogen after seedling emergence. For specific products, rates and timing of herbicides in newly established stands, visit with your weed management specialist.

2. Fertilize introduced perennial pastures to meet production goals. Use current soil tests or take soil samples immediately to determine nutrient requirements for introduced pastures. Introduced pastures are most productive when managed according to nutrient analyses, although cost-benefit analyses need to be performed simultaneously. Apply recommended nutrients at green-up based on desired production. Target the most productive pastures (soils and forages) first and cover the acres you can afford to do well.

3. Be prepared to apply appropriate pesticides to introduced perennial pastures, especially if fertilized. Pests, such as weeds or insects, rob production from introduced pastures. Appropriately applied pesticides can protect the fertilizer investment. If six or more weed plants per square foot emerge early in the season, herbicide treatment is usually recommended. Grasshoppers or armyworms can be effectively treated with appropriate pesticides if treated early. For specific products, rates and timing, visit with your pest management specialist.

4. Spray unwanted weeds in native range pastures if weed pressure is expected to inhibit forage production. In native range, a forage composition of 15 to 25 percent forbs is normal and not usually at an economic threshold to warrant treatment. If wildlife is an important component of the operation, a healthy population of desirable forbs is needed. However, if weeds such as ragweed, broomweed and sericia lespedeza were an issue last year, a timely application of an appropriate weed spray could be beneficial. If an herbicide application is deemed necessary, target the most productive range sites. Planning now can ensure a more timely application and improve the efficacy of the treatment. For specific products, rates and timing, visit with your weed management specialist.

5. Provide rest and recovery to overgrazed or overused native range pastures. The recovery process for native range pastures begins with rest during the growing season. When possible, rest (do not graze) a targeted pasture for the entire grazing season. Graze the pasture lightly during winter, leaving adequate residual and ground cover. Another scenario would be to graze native pastures through early summer then defer grazing from July until after frost.

6. Maintain adequate residuals in all grazed pastures throughout the year. A residual height of at least 6 inches in native range pastures and 3 inches in introduced pastures should always be maintained. Managing residuals enhances pasture productivity by insulating the ground from high temperatures, maintaining plant vigor and resiliency, and allowing more water infiltration during rainfall events. These are a few considerations to assist in preparing a pasture management plan for the growing season. Plans made now will impact production throughout the growing season.
Proper management increases weed control success

by Eddie Funderburg / efunderburg@noble.org

Many factors must be considered to implement a weed control program for summer pastures. This article deals with the basics that must be done for your weed control program to be successful.

First, scout your pastures to see if you have enough weeds to justify spraying. Sometimes, the inclination is to spray without looking to see if you should. A well-managed and properly stocked pasture should not need herbicides every year. A little time spent scouting may save you a lot of unnecessary time and money on spraying when your weed population is not high enough to justify it.

If you have enough weeds to spray, identify the species present. Correct weed identification is essential to select an herbicide that will control your weed spectrum. Incorrect weed identification can lead to two types of errors. You may choose an expensive herbicide when a less expensive one would have done the job, or you may choose an herbicide that does not adequately control the weeds you have, regardless of its cost. Refer to plant identification sites on the Internet and reference books, or take the plants to someone you trust to help you with identification.

Once you have identified the weed species in your fields, get prices on pasture herbicides sold in your area and check their labels for the weeds they will control. Herbicide labels are attached to their containers or can be found on different sites on the Internet such as Agrian.com or CDMS.net. Match this information with the price per acre to determine the best and most economical herbicide to fit your weed spectrum. Time spent examining your herbicide options can either save you money or save you from having a weed control failure.

When you have decided on a herbicide, scout the fields again to make sure the weeds are in the correct growth stage to achieve good control. Most weeds should be sprayed when they are small and actively growing, but there are exceptions to this. The label will usually show the weed height or growth stage that is optimum for control.

Before you spray, calibrate your sprayer. This is an essential step that many farmers and ranchers omit. There is no way to know how much herbicide to put into the tank if you do not know the output of the sprayer. Sprayer calibration is not difficult and does not take a lot of time. The Noble Foundation has calibration guidelines for boomless sprayers (http://bit.ly/boomless-sprayer-calibration) and for sprayers with booms (http://bit.ly/boom-sprayer-calibration).


Read the label carefully to determine if additives are required for the herbicide to work at an optimum level. A nonionic surfactant is usually required, but some herbicides may require a different adjuvant. Also, some herbicides contain surfactant and no more is needed. The only way to know is to read the label.

After you have done all the things listed above, make sure the correct environmental conditions are present before you spray. The major environmental considerations are wind speed and direction. If the wind speed is too high, the herbicide will not be properly deposited on the weeds. If the wind is from the wrong direction and your spray drifts onto sensitive plants belonging to a neighbor, you may be in legal difficulty.

Keep accurate records of your spray activities. Learn and follow the rules and regulations that pertain to your state.

Implement these simple rules when you plan your pasture weed control program and your chances of success should be good. Ignore these rules and your chances of success are much lower.
The wild turkey is an iconic figure across its range in the 48 contiguous states and into Mexico and southern Canada. There are six subspecies of the wild turkey with the Rio Grande turkey (Meleagris gallopavo intermedia) and eastern wild turkey (Meleagris gallopavo silvestris) being the two most common subspecies in the Southern Great Plains. Unregulated hunting and habitat loss reduced wild turkey numbers, almost to extinction, in some areas by the early 1900s. However, due to the efforts of wildlife agencies, the birds have recovered in most areas.

Breeding season begins in March when males start gobbling and strutting, and winter flocks begin to break up into smaller groups. Most male and female juvenile birds become sexually mature before their first breeding season. Sexually mature males are called gobblers or toms, and 1/2- to 1 1/2-year old males are called jakes. Males may breed with several hens but take no part in nest selection, incubation or caring for young turkeys, which are called poults. Hens select a nest site in March or early April and usually begin laying eggs. Hens scratch out a shallow depression on the ground, usually near a log, stump, shrub, brush pile or thick grass. The nest will be lined with plant material collected adjacent to the nest. Turkey nests average 11 eggs, ranging from four to 17, which are laid over approximately two weeks. Hens need only one successful mating for all eggs to be fertile. Incubation takes about 28 days. Within 24 hours after the poults hatch, the hen and poults usually leave the nest. If the nest is destroyed, mature hens may attempt to renest, sometimes as late as August.

Land managers with turkey management goals must take into account that turkeys’ daily and annual movements typically cross one landowner’s property boundaries. Turkeys may move from 1 to 5 or more miles per day, covering from 100 to 1,000 or more acres. This varies depending on time of year and habitat characteristics. Annual home ranges vary as well depending on sex and maturity of the turkey and configuration of available habitat. When managing habitat for wild turkeys, the limiting habitat component must be addressed.

Turkeys need a reliable water source, adequate space, grasses, forbs, mast producing trees and roost trees. Maintaining roost trees on the landscape can be essential for turkeys to use a property. Unfortunately, many roost sites are lost to encroaching underbrush, Eastern red-cedar, mechanical removal and human disturbances. For more information about roost site management, see Conserving roost sites helps maintain Rio Grande turkey (www.noble.org/ag/wildlife/turkey-roosts). Proper use of prescribed fire and grazing are necessary to maintain foraging and nesting cover as well as brood rearing areas. Turkeys use different habitat types during fall and winter months compared to those used during the spring and summer months for nesting and brood rearing. This explains why some land managers see turkeys only during a portion of the year on their properties.

Turkeys have huntable populations in many areas. They are an excellent game species and spring gobbles of toms create an exciting outdoor experience. When managing harvest, consider taking no more than 25 to 30 percent of available males in the spring. This allows for population growth and provides future hunting opportunities. Since hunting is considered additive to natural mortality, maintaining this level of harvest over a long period may reduce male age structure and the number of males available for harvest. For more information about spring harvest management, see Spring Harvest Management for Rio Grande Turkey (www.noble.org/ag/wildlife/spring-harvest-turkey/).
Saturday, May 2, 2015, is National Wildfire Community Preparedness Day. This day is dedicated to raise wildfire awareness and help protect homes, neighborhoods and communities, while increasing safety for wildland firefighters.

City suburbs continue to spread into rural areas where, as a result of years of fire suppression, wildfires are a real risk. For more seclusion and to be closer to nature, homes in these suburban properties are often tucked into trees and other vegetation that serve as fuel for wildfires. Many suburban areas in the Southern Great Plains are inundated with Eastern red-cedar, a highly flammable tree. Too often, residents overlook the risk of wildfire in their communities, but by working together they can make their neighborhoods much safer from wildfire.

Nine out of every 10 wildfires are caused by man. Wildfires are started in many ways: outdoor welding, tossing out cigarette butts, losing management of “controlled” burns of brush piles or other debris, etc. These activities usually are conducted with little to no prior planning. Whether camping or working around the farm or house, be sure you have a plan in place to prevent a wildfire. This includes understanding weather conditions that cause wildfires and monitoring weather forecasts to avoid starting fires under those conditions.

One way to drastically reduce the frequency and severity of wildfire where suburbs meet rural areas is to support and conduct prescribed fires. Prescribed burning, unlike controlled burning, involves a “prescription” contained in a burn plan that is developed well in advance – sometimes a year or more – before actually conducting the burn. This prescription takes into account appropriate and safe weather variables, firebreak preparation, equipment and labor, smoke management, follow-up monitoring, and more to safely conduct the burn. Prescribed burns reduce the accumulation of vegetation that fuel wildfires. Fewer wildfires mean fewer injuries and property losses, and less expense to fire departments and communities. More information about prescribed burns can be found at www.noble.org/fire/.

Proper planning and management in suburban areas is also important to reduce the spread and intensity of wildfire. Suburban residents can do their part to make their neighborhood safer from wildfire. Here are some tips from the National Fire Protection Association (www.nfpa.org):

**In and around your home**

- Clear leaves and other debris from gutters, eaves, porches and decks. This prevents embers from igniting your home.
- Remove dead vegetation and other items from under your deck or porch, and within 10 feet of the house.
- Screen or box in areas below patios and decks with wire mesh to prevent debris and combustible materials from accumulating.
- Remove flammable materials (firewood stacks, propane tanks) within 30 feet of your home’s foundation and outbuildings, including garages and sheds. If it can catch fire, don’t let it touch your house, deck or porch.
- Wildfire can spread to tree tops. Prune trees so the lowest branches are 6 to 10 feet from the ground.
- Keep your lawn hydrated and maintained. If it is brown, cut it down to reduce fire intensity. Dry grass and shrubs are fuel for wildfire.
- Don’t let debris and lawn cuttings linger. Dispose of these items quickly to reduce fuel for fire.
- Inspect shingles or roof tiles. Replace or repair those that are loose or missing to prevent ember penetration.
- Cover exterior attic vents with metal wire mesh no larger than 1/8 inch to prevent sparks from entering the home.
- Enclose under-eave and soffit vents or screens with metal mesh to prevent ember entry.
- Manage for low growing, less flammable, well-irrigated plants 30 to 100 feet from the home.
- Learn more about how to protect your home and property at www.firewise.org.
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For more information or to register, please visit www.noble.org/agevents or call Maggie Scott at 580.224.6375. Preregistration is requested.

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