Hardee Rancher Beef and Forage Newsletter

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UP COMING EVENTS

August 1999	
10-12	1999 Forage and Pasture Management School - Sebring
26	Body Condition Scoring/Stocking Rate Program - Hardee Agri-Civic Center - Wauchula
September 1999	
2-3	FCA Fall Quarterly Meeting - Ft. Myers
16	Beef Cattle Winter Supplementation Seminar - Sarasota
October 1999	
1	Florida Cattlemen's Association Heifer Sale - 1:00 P.M. Hardee Livestock Market - Wauchula

14	Herd Bull Selection Program - Hardee Cattlemen's Arena - Wauchula
28	Hay Production Field Day - Palmetto

COWBOY GRAZING MANAGEMENT

All flesh is grass and the eye of the master fattens his cattle are true sayings. It is equally true that you will manage the grass or the grass will manage you. As a ranch owner or manager you are the steward who is held responsible for the number and weight of steer calves marketed and heifer calves retained for breeding. Much of the success or failure you experience is directly related to your ability to farm grass. Most of us in the cattle business call ourselves cattlemen or cattle women and neglect to think of ourselves in terms of grass farmers. So lets take a look at how our crop grows and responds to grazing pressure.

Ranchers are paid for commercial cattle based on live weight at sale time. Weight is gained by cattle consuming grass on forage based systems in south Florida. Grass captures the energy in sunlight. But when sunlight falls on bare soil its energy cannot be harnessed.

Principle #1 - Maintain complete plant cover in pastures for as long as possible.

After grazing all plants go through three phases of growth. **Phase 1** occurs after plants have been severely grazed. Fewer leaves are available to intercept sunlight and plants require more energy for growth than they are able to produce through photosynthesis. In order to compensate, energy is mobilized from the roots. The roots become smaller and weaker as energy is used to grow new leaves. Plant growth is very slow at this time but the leaves are extremely palatable and nutritious.

Phase 2 occurs when regrowth reaches one fourth to one third of the plant's mature size. Enough energy is captured through photosynthesis to support growth and begin replenishing the roots. This is the period of most rapid growth. During Phase 2, leaves contain sufficient protein and energy to meet the nutritional requirements of most livestock.

Phase 3 involves continued plant growth and leaves become more and more shaded. The lower leaves die and decompose. Leaves use more energy for respiration than they can produce for photosynthesis. Plant material is stemmy and fibrous. Nutrient content, palatability, and digestibility of leaves is poor.

Remember **Phase 1** - High quality but low quantity.

Remember **Phase 2** - High quality and high quantity.

Remember **Phase 3** - Low quality but high quantity.

Principle #2 - Adjust grazing and rest periods to keep plants in Phase 2, the period of most rapid growth.

Never graze plants to short that they enter Phase 1. Phase 1 regrowth is very slow and will reduce total productivity. Do not allow plants to enter Phase 3 because shading and increased maturity begin to detract from efficiency and cattle do poorly on this overly mature, high fiber grass. The energy harvest from your pastures will be maximized keeping plants in stage 2.

Principle #3 - Adjust rest periods to reflect rate of plant growth. Slow growth = longer rest. Fast growth = shorter rest.

Plant growth rate and recovery from grazing depend on growing conditions (temperature, moisture and soil fertility). The growth rate also depends upon grazing pressure and length of the graze. When plants are severely grazed their recovery is slow. An excellent rule of thumb is to graze half and leave half.

Principle #4 - Make grazing periods as short as possible while maintaining adequate rest periods.

The forage consumed and the quality of the diet changes during an animals stay in the pasture. Cattle are selective grazers and eat the better plants and plant parts first and leave the coarser and less nutritious forage. Cattle will consume the most forage on the first day in a fresh pasture and as the days pass they will consume less because the forage matures and becomes trampled and fouled with feces and urine.

In heavily stocked continuously grazed pastures, any regrowth will be grazed as soon as it becomes available. This phase 1 regrowth is highly palatable and nutritious. The problem is that there is not enough volume to support high cattle numbers.

In lightly stocked continuously grazed pastures plants are in phase 1 and 3. If cattle are forced to eat phase 3 material, which passes through their gut very slowly, their daily consumption will decrease because they simply cannot fit any more into their rumen. The net result is poor performance.

Try to imagine a situation where cattle are frequently moved to fresh feed. Forage consumption would remain high and so would diet quality.

Principle #5 - Use the highest stock density possible.

Stock density is the number of cattle in a particular area at any given moment and is expressed as number of head/acre. Pastures with low stock density appear patchy with some patches very short and others consisting of tall, stemmy material. Many ranchers mow this phase 3 vegetation or use fire to remove old, unpalatable material when what they really need is a higher stock density. More head per acre will increase the uniformity of utilization and maintain forage in a more palatable, digestible and nutritious state.

Overgrazing is a function of time whereas uniformity of utilization is a function of stock density. Of course, overgrazing will occur if high stock densities remain too long. The key is knowing when to open the gate and allow cattle into the next pasture. Visual inspection of distinct characteristics, primarily reflecting leafiness is what to look for.

How Many Pastures Are Needed?

The "correct" answer depends upon the length of the required rest, length of the graze period, stocking density needed to achieve uniform utilization and weather/season.

Most ranchers can begin implementing these principles without building new fences by combining herds, increasing stock densities and closing some gates. If additional fencing is required consider using some electric fences.

Do I Need To Change To Controlled Grazing?

A wise man once said, "No one ever changes until they have to". Controlled grazing is not for everyone, but it is a tool which many ranchers are using to maximize the production of high quality forage in sustainable

production.

There is no magical formula which will provide you with the correct number of pastures, stocking densities, and graze and rest periods. Every ranch has different conditions, objectives and resources and what works on one ranch won't work somewhere else. There are a number of ranchers working with different systems. If you would like to discuss grazing management systems further, please give me a call or stop by the office anytime.

FREE FARM POLICY WEBSITE

This is a new web site that combines daily breaking news...on-line access to primary source documents like the 1996 farm bill and this week's Senate floor debate on agricultural spending legislation...in-depth original analysis of current hot topics...provocative quest commentaries...and over a thousand links to other agricultural and food industry sites. To access go to www.AgricultureLaw.com.

FALL ARMYWORM ALERT

Now is the time of year to be alert to fall armyworms in your pastures and hayfields, especially on recently fertilized forage. It doesn't take these insects long to damage a crop, so be vigilant at this time of year. Flocks of egrets are a real "tip-off" that you may have a problem. Sometimes in the early stages it takes more than a casual drive through the field. So get out and walk around and look closely.

These caterpillars or "worms" are the immature stages of grayish-brown moths. Females lay their eggs on the lower leaves of grasses and the larvae begin to feed as soon as they hatch. Because they often move in large numbers from one area to another in search of food, they are called armyworms. To prevent extensive damage, treatment must be made when the worms are small. The almost mature larvae (1 to 11/2 inches) are difficult to control.

Control Recommendations for Pasture

Insect infestations in pastures usually start in small, isolated areas. Make frequent inspections and spot treat before infestations become widespread. This practice not only saves insecticide, but also prevents extensive injury to the grass and reduces the residue problem.

Apply low rates of materials to light infestations, light forage cover, and smaller stages of pests. Apply higher rates to heavy infestations, dense forage cover, and mature stages of pests.

Following is a list of recommended insecticides that may be used for control of armyworms. See individual brand labels for usage instructions.

Bacillus thuringiensis
Carbaryl (Sevin)
Malathion
Methomyl (Lannate)
Methoxychlor
Methyl Parathion
Naled (Dibrom)
Permethrin (Ambush)
Pyrethrin + Piperonyl
butoxide + silicon dioxide
Pyrethrin + PBO (Pyrenone)

Rotenone (Rotacide)

Mention of product names does not consitiute endorsement by the University of Florida/IFAS, Florida Cooperative Extension Service, or the Hardee County Board of County Commissioners.

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For questions or comments regarding this publication contact  Lochrane A. Gary

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