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7 Keys *to* Profitable Forage Production

Forage specialists suggest these management steps for success.

Story by
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Some producers are more productive and profitable in their operations than others. Why is that? Look a little closer and commonalities for success can be found in certain management decisions employed by top-notch producers.

From a forage perspective, Garry Lacefield, Extension forage specialist at the University of Kentucky, and Don Ball, Auburn University Extension agronomist, have compiled a list of several traits common in successful forage producers. Lacefield and Ball shared these “keys to profitable production” at the Second National Conference on Grazing

Lands Dec. 7-10, 2003, in Nashville, Tenn.

“Many of these management ideas are basic fundamentals, but they do make a difference in production and profitability — regardless of the species of livestock you are grazing,” says Lacefield, who has traveled with Ball to evaluate forage systems in several countries.

Common Themes

1. **Focus on forage.** “We’ve found that successful producers know the resources on their farm. They’ve diversified the species of grasses and legumes and have a mix of cool- and warm-season forages so they can match the feed value to the nutritional needs of their animals,” Lacefield says. This

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includes knowing a plant's stage of maturity and when it offers the highest quality to the animal.

Additionally, he reports that these producers have selected specific varieties of forage species that suit their climate and soils and offer improved yield, quality and pest resistance. Lacefield emphasizes that

forage quality can increase livestock efficiency. "Better varieties will make you more money over time," he says.

2. Utilize soil tests. "An effective forage program begins with a soil test," Ball says. Based on soil test results, apply fertilizer and other nutrients if necessary and feasible, he suggests. "Fertilizer is expensive, but it

can boost profitability if the resulting forage is utilized with proper stocking rates and grazing management."

3. Use legumes whenever economical. "Yes, bloat is a concern with legumes," Lacefield says. But, he adds, "We lose so much money in operations today because of the fear of bloat.

"There are many different species of legumes, and profitable producers know that, with management, bloat can be minimized," he says. For instance, avoid putting animals on legumes when it is wet or if they are overly hungry.

By using legumes, producers can boost a pasture's forage yield and quality, dilute endophyte toxicity from tall fescue, and reduce fertilizer costs by improving nitrogen fixation in the soil. Because they are rooted deeper, legumes can also provide forage during mid- to late summer when other forages taper off, Lacefield says.

He suggests including legumes at 25%-50% of a pasture mix and says, "Legumes can increase conception rates, weaning weights and milk production. They may not fit in every

Take extra time when establishing forages

Another management tactic often overlooked is taking time to properly establish a new forage stand. "Establishment is the time to pay attention to all the details," says Auburn University Extension agronomist Don Ball. "Proper establishment leads to thick, healthy stands and a good root system that can take more abuse," he adds.

Producers should consider:

- preparing the seedbed and dealing with herbicide residue, current weed growth, and the possibility of annual weed seeds in the soil;
- purchasing high-quality seed from a reputable source;
- determining if legume inoculation is needed;
- planting date;
- seeding rate; and
- planting depth.

Ball says to be sure to use enough seed and to watch planting depth. "This is where many plantings go wrong," he says.

Ball cautions not to graze the stand too early after plants emerge. "Hoof damage can pull up young plants, and grazing too soon can prevent the root system from developing carbohydrate reserves for future growth," he says.

Consult your area Extension specialist for assistance in evaluating forage establishment considerations.

operation, but ask yourself what role they might play.”

4. Minimize stored feed requirements. Another common trait among successful forage producers is they reduce the amount of hay being fed, which extends the grazing season. “It is cheaper to let the cows harvest the forage,” Ball says, adding that pasture forage quality is usually better than hay quality.

To extend the grazing season, he suggests growing a variety of cool- and warm-season grasses, using perennial legumes as companions to perennial grass stands, and selecting varieties with yield differences and distribution of growth to fit your needs.

To get more mileage out of grazing, producers should also consider planting annual forage crops that could be grazed in early spring or late fall; stockpiling forages starting in late summer and then strip grazing them in the fall or winter; and, if available, grazing crop residues. “Even if these options only allow you to graze for an additional two or three weeks, those are days you saved money because you did not have to feed hay,” Ball says.

5. Reduce weathering losses to stored hay. “Unfortunately, a lot of hay that is put up isn’t very good by the time it’s consumed,” Ball says. He estimates weathering can reduce forage quality of stored hay by 30%-50%.

To minimize losses, he suggests producing larger, tighter bales, storing outdoor bales on rock pads or wood pallets, placing bales together on the flat ends, and storing bales in rows away from trees.

He adds, “Forages like Sudan grass won’t make tight bales. Therefore, they should not be stored outside for a long period of time.”

6. Prevent or minimize pest and plant-related disorders. Weeds, disease, insects, nematodes and animal disorders such as bloat and endophyte toxicity are all potential robbers of profitability, Ball and Lacefield say. The solution: Arm yourself with information. “There are a lot of things successful producers do to avoid these pests that don’t cost money. They have a knowledge base and can, therefore, make management decisions to deal with such challenges,” Lacefield says.

7. Improve pasture utilization. “Grazing management offers the greatest potential to use more of what you grow,” Lacefield says. Producers can reduce the amount and length of time hay is fed and ultimately improve profitability.

As indicated by the points outlined above, Lacefield says, “Producers do have opportunities to reduce the need for feeding hay. It starts by having a forage base that can be grazed, and then utilizing that system efficiently.

For example, he says a common

problem he sees is pastures that are too large. “In those situations, the animals make all of the decisions. But producers can control those decisions with practices such as fencing and rotational grazing,” he says.

Lastly, Ball and Lacefield add that results require an investment in thought, time, effort and a certain amount of money. Ball says, “Each of these keys may

seem simple, but they are important to success. It’s a matter of implementing them.”



Editor’s Note: These key points are adapted from the book *Southern Forages*, which Lacefield and Ball have co-authored with University of Georgia professor Carl Hoveland. The textbook is available for \$30, plus shipping and handling, from the Potash and Phosphate Institute by calling (770) 447-0335.