BEEF TIPS

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K-STATE Kansas State University

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NORTHWEST AREA LIVESTOCK PRODUCTION SPECIALIST

Farmers in the 1990s must be more in tune to business principles, but Sandy Johnson believes that doesn't mean sacrificing old-fashioned farm values and lifestyles.

Johnson is the newly-hired livestock production specialist for Kansas State University's northwest area Research and Extension center in Colby.

Johnson grew up on a cattle and swine operation near Blair, Neb. (north of Omaha). She earned the bachelor of science degree in animal science from the University of Nebraska, and the master's degree in reproductive physiology from the University of Missouri.

Upon completion of the master's degree, Johnson worked as a research technician for the University of Nebraska's west-central Research and Extension center in North Platte. In 1991, she earned the doctoral degree in reproductive physiology from West Virginia University.

From 1993 to 1997, Johnson taught in the agriculture department at Fort Hays State University.

Johnson has utilized ultrasound technology to study follicular growth and early pregnancy detection in cattle and sheep. In recent studies, she has applied findings on follicular growth to improve estrous synchronization systems.

"We are in the information and technology age. We need to continue to apply technology to on-farm needs," she said.

Johnson can be reached at the northwest area Research and Extension center, 105 Experiment Farm Road, Colby, or by calling 785-462-6281.

SUMMER STOCKER DECISIONS

As the summer grazing season approaches, cattlemen placing calves or yearlings on summer grass are watching the markets and putting a pencil to many of the products and practices used in their operation. Listed below is current research addressing some of the management decisions facing summer stocker operators.

HALF VS THREE-QUARTERS GRAZING

Half versus three-quarter grazing of native pastures was recently evaluated over a 9-year period at the Bressner Range Research Project near Yates Center. One-half season grazing produced the highest returns per acre, while ¾-season grazing produced higher returns/steer.

Half vs ¾-season grazing of native grass pastures[a]

Item	½ Season	¾ Season
No. Steers	1354	915
Pastures/9yr	36	36
Average Days	81	112
ADG, lb	2.78[b]	2.48[c]
Gain/animal, lb	225[b]	278[c]
Return, $/acre	$33.31	$29.98
Return, $/Steer	$23.75	$30.61

[a]Brazle et al., 1999 Cattlemen's Day Report
[b,c]Means with unlike superscripts differ (P<.01)

While there were no differences in range condition between the two grazing lengths, forage regrowth following grazing was greater for 2-season pastures. These results suggest that the preferred grazing system used may depend on whether the producer owns the cattle, land, or both.

WINTER GRAZING VS SPRING BURNING OF NATIVE PASTURES

A recent trial compared performance of heifers grazing pastures that were either heavily grazed during the previous winter, or burned in April.

Stocker performance on native pastures[a]

Item	Burned	Heavily grazed
No. heifers	229	181
Starting weight, lb	518	518
Grazing period, days	81	81
Daily gain, lb	1.99[b]	1.80[c]

[a]Brazle, 1993 Cattlemen's Day Report
[b,c]Means with unlike superscripts differ (P<.01)

Although any method of removing the previous year's dormant grass from pastures prior to grazing will improve performance, burning still appears to be the most effective grass management practice to improve gains on IES pastures.

STOCKER CHARACTERISTICS AND ADG

In addition to length of the grazing season, stocker sex, age, and initial weight all affect grazing performance. The following table summarizes research conducted over 10 years with stocker cattle grazing burned, native grass pastures.

Effect of stocker characteristics on grazing performance[a]

Item	ADG, lb
Effect of sex on stocker performance.	
Steers (3,752 head)	2.3[b]
Heifers (2,862 head)	1.9[c]
Effect of age on stocker performance (93 days)	
Calves (103 head, 444 lbs)	2.45[b]
Yearlings (158 head, 587 lbs)	2.68[c]
Effect of steers starting weight on animal performance (18 studies, 3,732 head, 86 days)	
399 lb and lighter	1.77[d]
400 to 499 lb	2.77[b]
500 to 599 lb	2.62[b]
600 to 699 lb	2.39[c]
700 lb and heavier	1.95[d]
Effect of heifer starting weight on animal performance (11 studies, 2,862 head, 81 days)	
399 lb and lighter	2.09[fg]
400 to 499 lb	2.10[f]
500 to 599 lb	1.96[fg]
600 to 699 lb	1.82[g]
700 lb and heavier	.53[g]

[a]F.K. Brazle
[b,c,d]Means with unlike superscripts differ (P<.01)
[f,g]Means with unlike superscripts differ (P<.08)

The ability to better predict animal performance may aid in determining breakeven purchase price for each cattle type.

IMPLANTING GRAZING STOCKERS

There are several implants approved for grazing stocker cattle. In general, grazing implants improve stocker gains by 10% to 15%.

FDA approved implants for calves and grazing stockers

Steers	Heifers
Ralgro®	Ralgro®
Synovex®-C,-S	Synovex®-C,-H
Calf-oid™,Implus™ -S	Calf-oid™,Implus™-H
Component™ E-C, -S	Component™ E-C, -H
Compudose®	
Revalor-G®	Revalor-G®

While some research has indicated that reimplanting midway through a full season grazing period may improve stocker performance, research with stockers grazing native pastures season-long suggest that the additional performance boost is minimal due to declining forage quality and(or) quantity. In these cases, the minimal performance boost rarely pays for additional processing and implant expense.

MINERAL SUPPLEMENTATION

While performance responses to mineral vary due to cattle history and forage mineral variability, native range typically contains .1% phosphorous, well below the .2 to .3% required by growing cattle. A 5 to 8% Phosphorous mineral will generally meet their phosphorous requirements.

Research indicates that the addition of antibiotics such as oxytetracycline and chlortetracycline to the mineral mix improves performance by .15 lb/day; however, animal response may vary, as performance improvements may be due to clearing up subclinical infections and reduction of footrot and pinkeye in the herd.

The addition of zinc methionine to mineral supplements has also reduced the incidence of footrot and improved performance, while the addition of iodine, or EDDI, to stocker mineral supplements has not been as successful at reducing the incidence of footrot.

Finally, the addition of ionophores such as Rumensin and Bovatec, either through grain or mineral supplements, has routinely improved daily gains from .1 to .2 lb/day in grazing trials.

FLY CONTROL

As printed in the May 1996 Beef Tips, the benefits of controlling fly problems has averaged 15 to 25 pounds. Good control may mean providing additional fly control during late summer grazing to control late fly hatches as fly tags begin to lose effectiveness. If you are using fly tags, Dr. Don Mock, K-State entomologist, suggests using oraganophosphate tags for two years, pyrethroid tags for one year, then rotating back to a pyrethroid for two years. When selecting tags, identify the active ingredient, as several different colors (and brands) of tags use the same active ingredient. Producers may also need to use additional fly control methods during August and September.

Some producers have reported success in fly control with larvicides included in the mineral mixture, such as IGRs (insect-growth regulators). People interested in these fly control programs should realize that the success depends on a constant intake of the mineral at levels high enough for

consistent fly control. Also, newly emerged horn flies will travel as far as 10 miles in search of cattle or other suitable hosts. This means if you are using an oral larvicide and neighboring cattle are not, you may still experience some fly control problems.

SUMMARY

When stocker cattle margins are small, reducing nutrition and management expenses does not always improve the enterprise budget. While often difficult to measure, the use of proven products and practices often pay for themselves through increased stocker performance.

Steve Paisley, Extension Specialist, Livestock Production

IT'S TIME TO THINK ABOUT . . . FOR SPRING CALVING COW/CALF PRODUCERS

April and May are transition months for most spring calving herds. Winter weather in most parts of the state has allowed conservation of hay supplies.

Calving Season

- Don't slack off or give up. Managing breeding season length will control calving season. Every cow and calf is important.
- Keep calving area as clean and dry as possible. Give calf a dry, comfortable, and clean environment.
- Get colostrum into the calf as soon as possible (first 12 to 24 hours of life).

Cowherd Nutrition

- Supplement and feed cows to maintain or improve body condition prior to the breeding season. Do not stop supplementing cows before grass is ready to handle the cow's nutrient requirements.
- Sort thin and young cows (2- and 3-year-olds) into separate management herds. Increases in energy and protein intakes may be needed to compensate for greater nutrient demands.
- Mineral supplementation should include greater levels of magnesium (15 to 30 grams/head/day or at least 11% of the mineral mix) for grass tetany prevention.
- Bulls should be in good body condition prior to the breeding season. Thin bulls will run out of stamina.

Herd Health

- Breeding soundness examinations are recommended for all bulls.
- Maintain top management concerning calf scours (sanitary conditions, early detection, electrolyte/dehydration therapy).
- Vaccinating calves for clostridials, dehorn and castrate males prior to pasture turnout. Implant calves that will be sold at weaning.
- If branding calves, consider moving brand away from the ribs.
- Wait for fly control until critical numbers are reached (100 to 200 horn flies per animal).
- If cows are not gathered in the fall now is the time (3 weeks prior to breeding season) to vaccinate for reproductive diseases (consult with your veterinarian).
- Deworm cows and bulls if needed.

Forage/Pasture Management

- Use prescribed fire to eradicate cedars and improve forage quality.
- Fertilize cool season pastures at locally recommended rates.
- Plant sudan, sudan hybrids or other summer annuals for haying or grazing.
- Fertilize according to soil tests.
- Check and maintain summer water supplies.

Reproductive Management

- Palpate and score replacement heifers' reproductive tracts. Cull heifers with infantile tracts.
- Yearling weight of replacement heifers can be used to determine plan of nutrition needed to achieve target breeding weight.
- Consider breeding heifers 3 weeks prior to the mature cowherd to give them a greater chance to rebreed.
- Consider using MGA and prostaglandin or some other estrous synchronization program and artificial insemination (AI) to decrease calving difficulty and increase the value of next year's calf crop. For thin cows, consider 48-hour calf removal and "teasing" with a gomerized bull prior to the breeding season.
- Plan breeding season and bull turn out. Assign yearlings 10 to 15 cows; 2- and 3-year-olds 20 to 25 cows, older bulls 25 to 40 cows. Ninety days should be long enough, 65 days optimum.

Genetic Management

- When purchasing bulls, insist on performance records and EPDs to base selection criteria.
- Order semen and AI supplies well in advance of usage. Check semen tanks for leakage.
- Record yearling weights and submit records to breed associations for genetic evaluation.

General Management

- Record calving information permanently.
- Replace lost or worn eartags.
- Good fences and good brands make good neighbors.
- Check equipment (sprayers, dust bags, oilers, haying equipment) and repair or replace as needed. Have spare parts on hand, down time can make a difference in hay quality.

Twig Marston, Extension Beef Specialist, Cow/Calf Management

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Kansas Feedlot Performance and Feed Cost Summary*

Gerry Kuhl, Extension Feedlot Specialist, Kansas State University

February 1999 Closeout Information**

Sex/No.	Final Weight	Avg. Days on Feed	Avg. Daily Gain	Feed/Gain (Dry Basis)	% Death Loss	Avg. Cost of Gain/Cwt.	Projected Cost of Sept.-Placed Cattle
Steers: 14,722	1,252	138 (123–150)	3.32 (2.83–3.60)	6.39 (6.18–7.15)	.83	$47.94 (46.65–49.48)	$45.75 (44.00–48.00)
Heifers: 16,716	1,150	137 (122–157)	3.07 (2.70–3.49)	6.53 (6.12–6.97)	.96	$49.84 (46.42–53.37)	$47.75 (46.00–49.50)

Current Feed Inventory Costs: January 15 Avg. Prices		Range	No. Yards
Corn	$ 2.19/bu	$ 2.00–2.29	7
Ground Alfalfa Hay	$69.00/ton	$60.00–75.00	7

*Appreciation is expressed to these Kansas Feedyards: Brookover Feed Yard, Brookover Ranch Feed Yards, Decatur County Feed Yard, Fairleigh Feed Yards, Kearny County Feeders, Pawnee Valley Feeders, and Supreme Cattle Feeders.

**Closeout figures are the means of individual feedyard monthly averages and include feed, yardage, processing, medication, death loss and usually sold FOB the feedlot with a 4% pencil shrink. Interest charges are not normally included.

K-State, County Extension Councils, Extension Districts, and U.S. Department of Agriculture Cooperating.

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