

BEEF TIPS



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Department of Animal Sciences and Industry

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Feeding wheat to cattle

By Steve Paisley, Extension Specialist, South Central Area; and Gerry Kuhl, Extension Feedlot Specialist

With wheat harvest over and weaning dates approaching, some producers may be considering including wheat in growing and/or finishing rations this year. In general, wheat energy values are similar to corn, with protein ranging from 12 to 15%, although this year's crop has been reported to be somewhat lower in protein. Considering both energy and protein, the relative feed value of wheat is approximately 103 to 105% that of corn. When economical, wheat can be used to partially replace more traditional livestock grains such as milo or corn, and also can be used in cow herd and stocker supplementation programs.

Comparing the cost of wheat

Because of wheat's heavier bushel weight, lower moisture level, and slightly higher relative feed value, wheat is normally included in least cost rations when its price is less than 110 to 115% of corn per bushel. Because of current corn prices, wheat still may not enter into least cost rations, despite low market prices. For example, if current prices for corn and wheat at the local elevator were \$1.70 and \$2.05, respectively, wheat prices would have to drop slightly ($\$1.70 \times 115\% = \$1.95/\text{bu}$) before wheat is included in many rations.

Although relative grain prices may not dictate feeding wheat, producers still may be interested in including wheat in growing and finishing rations, particularly if low test weight or sprout damaged wheat is available at discounted prices.

Growing Rations

Wheat can be 3 to 5% higher in protein than corn or milo, and works well as a grain substitute in backgrounding rations. Fort Hays research suggests that 4 pounds of wheat can replace 4.5 pounds of corn or 5 pounds of milo, and may be used as the only grain source in silage-based growing rations. Dry, hay-based growing rations should limit the use of wheat to no more than 50% of the grain to reduce fines. Because the starch in wheat is more rapidly digested than that of corn, cattle should be adjusted to wheat slowly and monitored closely. The addition of Rumensin® or Bovatec® is suggested to improve feed efficiency and help reduce the slight chance of bloat and acidosis.

Finishing Rations

In high concentrate rations, the amount of wheat generally should be limited to 30 to 50% of the grain. Because of the rapidly digested starch in wheat, ration changes should be made slowly. Other suggestions

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"If you have any questions concerning feeding wheat grain to beef cattle, please contact your county Research and Extension agent."

include using a coarse roll or grind on the wheat, keeping the fiber level of the ration above 6%, and including Rumensin® or Bovatec® to reduce the chances of acidosis and bloat. Feedyards with flakers can steam-roll wheat to about 37 to 39 pounds test weight, and make an excellent tough flake.

Discounted wheat

One low-cost feeding alternative is feeding off quality, light test, or sprouted wheat. Research in North Dakota, Montana, and Canada shows very little effect of light test weight on the feeding value of wheat. On the basis of these studies, producers can assume that wheat weighing over 45 pounds per bushel should have at least 95% of the feeding value of normal wheat for cattle. In addition, sprouted wheat also works well in livestock rations. Idaho researchers have shown that sprouted wheat can be substituted for normal wheat without affecting feedlot performance. In their trials, the wheat was approximately 60% sprouted and tested 56 pounds/bushel.

Concerns

When feeding off-quality wheat to cattle, there may be concerns about molds and mycotoxins when feeding wheat with head blight, or “wheat scab”. Most livestock feeds have mold spores on them. Even when mold counts increase to the point that they are visible, either in the field, during storage, or in the bunk, not all molds produce the mycotoxins responsible for decreased intake and performance. If the grain you are feeding has visible mold and a distinct musty odor, and you have noticed decreases in feed intake and/or performance, lab analyses may be necessary to determine grain quality and the presence of mycotoxins such as zearalenone and vomitoxin. Fortunately, growing and finishing cattle tolerate fairly high levels—up to 10ppm—of these two mycotoxins without problems, but breeding cattle are more sensitive.

It's Time to Think About . . . for Spring Calving Cow/Calf Producers

By Twig Marston, Extension Specialist, Cow/Calf

August and September are months when forages are maturing, weaning time is approaching, and weather dictates several key management decisions.

Breeding Season

- If heifers/cows are still showing signs of heat, look for problems such as:
 - Inadequate bull power.
 - Nutritional stress.
 - Inadequate body condition.
 - Reproductive disorders including IBR, Vibrio, Lepto, cystic ovaries, uterine infections, etc.
- Cull cows that are not conceiving after three or four services by a fertile bull.
- Remove bulls after 90 days of service (preferably 60 days with cows, 45 days with heifers).

Cowherd Nutrition

- Provide ample amounts of clean, fresh drinking water.

- Consider limited-intake creep feeding if:
 - Drought conditions develop and persist.
 - Range conditions limit milk production.
 - Creep feed/grain prices are low.
 - Value of gain allows for economic benefits.
- Tips for successful limited-intake creep feeding:
 - Limit intake to less than 2 pounds/head/day.
 - Use an ionophore or other feed additive to maximize efficiency.
 - Protein level should be 16% or greater.
 - High salt levels may help limit intake, but can be tough on feeders.
- Pre-purchase bulk rate winter supplementation needs prior to seasonal price increases.

Herd Health

- If pinkeye is likely to be a problem, consider the following preventive and therapeutic measures.

- Preventive:
 - Make sure herd is receiving adequate vitamins and trace minerals in their diet.
 - Consider using a medicated mineral supplement.
 - Consider vaccination for pinkeye and IBR.
 - Control face flies.
 - Clip pastures with tall, coarse grasses that may irritate eyes.
 - Provide ample shade.
- Therapy
 - Administer an intramuscular injection of long-acting oxytetracycline when symptoms are first noticed.
 - Shut out irritating sunlight by patching eyes, shade, etc.
 - Control flies.
 - Consult your veterinarian.
- Consider revaccinating for the respiratory diseases any animals that will be taken to livestock shows.
- Vaccinate suckling calves for IBR, BVD, PI3, BRSV, and possibly pasteurella at least 3 weeks prior to weaning.
- Revaccinate all calves for blackleg (4-way or 7-way clostridial).
- Vaccinate replacement heifers for brucellosis (4 to 10 months of age).
- Monitor and treat for footrot.

Forage/Pasture Management

- Enhance grazing distribution with mineral mixture placement away from water sources.
- Observe pasture weed problems to aid in planning control methods needed next spring.
- Monitor grazing conditions and rotate pastures if possible and/or practical.
- If pastures will run out in late summer, get ready to provide emergency feeds. Start supplemental feeding before pastures are gone to extend grazing.
- Harvest and store forages properly. Minimize waste by reducing spoilage.
- Sample harvested forages and have them analyzed for nitrate and nutrient composition.
- Plan winter nutritional program through pasture/forage management.

- For stocker cattle and replacement heifers, supplement maturing grasses with an acceptable degradable intake protein/ionophore (feed additive) type supplement.

Reproductive Management

The following methods contribute to a more uniform calf crop, make winter nutritional management easier and increases the success rate of next year's breeding season.

- Remove bulls to consolidate calving season.
- Pregnancy check and age pregnancies 60 days after the end of the breeding season. Cull cows that are short-bred.

General Management

- Avoid unnecessary heat stress—don't handle or truck cattle during the heat of the day.
- Repair, replace and improve facilities needed for fall processing.
- Order supplies, vaccines, tags, and other products needed at weaning time.
- Consider earlier than normal weaning if:
 - Drought conditions develop and persist.
 - Range conditions limit milk production.
 - Cows are losing body condition.
 - Facilities and management are available to handle lightweight calves.
- First calf heifers have the most to gain.
- Resist the temptation to feed the cows without weaning; feeding early weaned calves is more efficient.
- Look for unsound cows that need to be culled from the herd.
- Prepare to have your calf crop weighed and analyzed through your state, regional, or breed performance testing program.
- Document cost of production by participating in Standardized Performance Analysis (SPA) programs.
- Plan your marketing program, including private treaty, consignment sales, test stations, production sales, etc.

"Resist the temptation to feed the cows without weaning; feeding early weaned calves is more efficient."

Kansas Feedlot Performance and Feed Cost Summary*

Gerry Kuhl, Extension Feedlot Specialist, Kansas State University

June 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 July-Placed Cattle
Steers:10,241	1,214	142 (128-159)	3.46 (3.00-3.66)	5.66 (5.28-6.24)	.86	\$42.62 (40.63-44.64)	\$41.75 (41.00-42.00)
Heifers:13,924	1,121	152 (138-180)	3.02 (2.79-3.44)	6.06 (5.56-6.29)	1.13	\$45.64 (42.74-47.81)	\$43.75 (42.00-45.00)

Current Feed Inventory Costs: July 15 Avg. Prices	Range	No. Yards
Corn	\$ 2.13/bu	6
Ground Alfalfa Hay	\$63.83/ton	6

*Appreciation is expressed to these Kansas Feed-yards: 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 normally are not included.



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