

The Latest Across the Plains

Timely Reminders

General

- ◆ Don't shake Modified Live Virus Vaccines, roll it.
- ◆ Don't use anything but water to clean syringes.
- ◆ Change needles every syringe fill.
- ◆ Harvest corn silage at 2/3 milkline, or in drought situations when whole-plant moisture is 65%.

Beef

- ◆ PSI on chute head gate should be 550 to 650.
- ◆ Pull your bulls if they have been with cows 60 days or longer, leaving them with cows increases the chances they will stray and become injured.
- ◆ Invest in a hay sampling probe if you do not have one, it will pay to sample each cutting and variety.
- ◆ Prepare pens for incoming cattle.
- ◆ Keep an eye on by-product prices and consider booking for fall.
- ◆ Post-weaning is a good time to put extra weight on cows if they need it. Cows should calve with a BCS of 5+.

Unused Feed

"...there's nothing more practical than beef on the hoof, when folks are begging for it on the fire."

Save Money \$\$\$ Test Your Feeds

Tests are relatively inexpensive, usually costing less than \$18, for the information derived. Contact our office to set up an appointment to have us pull feed samples if we have not done so yet.

What's New in the Industry

Zilmax® is pulled off the market, while Optaflexx® is still available.

A feed mill can no longer mix Rumensin® and MGA® together, but the feedlot can.

Bovatec® and MGA® can still be mixed by the feed mill.

We want to hear from you...

Do you have a question you would like one of the nutritionists to address in depth in our newsletter? Just submit your question through our website www.GPLC-Inc.com and we will get to work on it.

Calendar of Events

- **Sep 6 - 15** Kansas State Fair, Hutchinson, KS
- **Sep 6 - 15** Tennessee State Fair, Nashville, TN
- **Sep 10 - 12** Big Iron Farm Show & Expo, West Fargo, ND
- **Sep 10 - 12** Husker Harvest Days, Grand Island, NE
- **Sep 12 - 22** Oklahoma State Fair, Oklahoma City, OK
- **Sep 17 - 19** Farm Science Review, London, OH
- **Sep 27 - 29** World Beef Expo, West Allis, WI
- **Sep 27 - Oct 20** State Fair of Texas, Dallas, TX
- **Oct 1 - 5** World Dairy Expo, Madison, WI
- **Oct 3 - 5** Ozark Fall Farmfest, Springfield, MO
- **Oct 11 - 20** Arkansas State Fair, Little Rock, AR
- **Oct 15 - 17** Sunbelt AG Expo, Moultrie, GA
- **Oct 21 - 25** Farm Equipment Manufacturers Assoc., Indianapolis, IN
- **Oct 24 - Nov 10** State Fair of Louisiana, Shreveport, LA



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Grazing Crop Residue

By Ki C Fanning, Ph.D., PAS Nutritionist

Grazing crop residue is generally a less expensive option than feeding cattle in bunks and there are a number of benefits to the grain farmer. The first is the reduction in volunteer problems the following year due to the digestion of the grain. Table 1 demonstrates no significant impact of grazing on subsequent grain yields in a crop rotation program. The second benefit is that the majority of the nutrients are returned to the soil through the manure. If a cow maintains her weight while grazing a field than by definition she has not removed any of the nutrients because she is not gaining weight, she is only using and excreting nutrients (i.e. nitrogen recycling). Third is the elimination of the need to shred stalks. The fourth is the ability of the ground temperature to warm faster because of the reduced ground cover. The end result is similar yields to crop ground that is not grazed as reported by Table 2, which shows yields in Iowa and Nebraska comparing yields from grazed and non-grazed corn and soybean crops. Table 3 is a study by the University of Nebraska that reports two years of data without any significant difference in yields but there is a numeric advantage in yields by grazing the stubble ground.

For the cattle producer, grazing crop residue not only can lower feed costs, but it can reduce health problems because grazing spreads the cattle out over a larger area which reduces disease transfer between individual animals. It is generally cheaper to let cattle harvest forages and feed themselves compared with mechanically harvesting and feeding the cows each day.

Typically, cattle stocked at 1.5 animal-units-per-month (one 1200 lb. cow for 44 days) only remove 20% of the total crop residue on fields, leaving plenty of cover and humus for the soil. However, about 50% of the leaves and husks are consumed. According to the University of Nebraska, about 16 pounds of leaf and husk per bushel of corn are produced ($[(bu/acre\ corn\ yield \times 38.2) + 429] \times 0.39$). Therefore, 150 bu. corn produces 2400 lb. of leaf and husk. With 50% of the leaves and husks consumed (1200 lb. of feed) there is 1.76 AUMs available. One AUM is 680 lb. of feed which supports one 1000 lb. animal for a month. In the 2004 Nebraska Beef Cattle Report, (pp. 13-15) Wilson et. al. reported that husks were 67% digestible and 3.6% protein, leaves 47% and 7.8%, stems 47% and 4.5%, and cobs 35% and 2.2%. The leaves and shucks are the most palatable and make up 65 to 72% of the residue consumed according to Fernandez-Rivera and Klopfenstein (J. of Ani Sci, 67: 597, 1989)

If you have a field that has a larger amount of grain, the grain can cause acidosis in cattle and steps should be taken to prevent any acidosis cases. To capture the value of the grain without losses there are several strategies that can be implemented. The first one is strip grazing the field to limit access to the grain a portion at a time. The second option would be running yearlings or cull cows that have been adapted to a higher grain diet in the field first, followed by breeding animals.

To calculate the economic benefit of grazing crop residue one needs to take the daily feed costs, plus the labor and expense of feed, and subtract the cost of fencing, moving cattle, and water-

ing cattle grazing crop residue. The difference is the value of the crop residue or the value of renting the crop residue.

In summary, forages are costly but the costs can be mitigated by allowing the cattle to graze crop residue. This can be done without reducing grain yields the following year and may actually positively affect yields. Additionally, cattle tend to be healthier and labor costs can be reduced, which will also positively affect the bottom line.

If you would like additional information or would like to set up a grazing program for the fall please don't hesitate to contact one of us.

Table 1. Grain Yields (Nebraska Beef Report p39, 2013)

Year	Cropping System	Crop	Grazed Yield	Ungrazed Yield	P-Value
93-95	Irrigated Corn/Soybean Rotation	Soybean	54.67	55.55	0.7418
93-95	Dryland Strip Cropping	Soybean	39.33	42.67	0.8289
93-95	Dryland Strip Cropping	Milo	106.33	107.00	0.8289
93-95	Dryland Strip Cropping	Corn	184.67	174.67	0.8289
93-95	Irrigated Cont. Corn	Corn	185.33	181.67	0.5766
96-11	Fall Grazed Corn-Soybean	Soybean	62.40	60.40	0.0010
96-11	Fall Grazed Corn-Soybean	Corn	208.90	205.80	0.1808
96-11	Spring Grazed Corn-Soybean	Soybean	61.70	60.40	0.0010
96-11	Spring Grazed Corn-Soybean	Corn	207.20	205.80	0.1808

Table 2. Effect of crop grazing in multiple locations (Adapted from Drovers, Dec 2012)

Crop	Location	Yield after Grazing, bu./a	Yield without Grazing, bu./a
Corn	Mead, NE	209	206
Soybeans	Mead, NE	62.4	60.4
Soybeans	Atlantic, IA	55.6	56.1
Soybeans	Chariton, IA	35	35.4

Table 3. Effect of grazing crop residues on subsequent crop yields in a strip cropping system (Nebraska Beef Report p42, 1996)

Crop	Yield after Grazing, bu./a	Yield without Grazing, bu./a
Corn, 1993	187	180
Corn, 1994	219	209
Soybeans, 1993	36	41
Soybeans, 1994	55	51
Grain Sorghum, 1993	71	72
Grain Sorghum, 1994	145	141



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Weaning Receiving Programs

By Jeremy Martin, Ph.D., Nutritionist

Managing the weaning and/or receiving process can be a challenge in a variety of situations. Over the last several years, continued drought has led to the early-weaning of calves across a wide cross-section of our territory. While there is no secret recipe, we as consultants and producers have learned a great deal, by trial and error, if no other way. Given these experiences, I felt it was a good idea to recap what has worked well in numerous situations.

First and foremost, understanding the kind of calves you are receiving is important. There is quite a difference in risk between fully preconditioned calves direct from a single well-managed ranch versus put-together fly-weights collected over the course of 2-3 days at as many or more sale barns. From a health standpoint, we strongly encourage you to talk to your local veterinarian and customize a program for your operation and the kind of calves you deal with. If you are not currently using a veterinarian on a regular basis, or as a consulting vet – please do so. We would enjoy the opportunity to meet with your veterinarian regarding your weaning program so everyone involved has contributed to the goals and procedures employed at your operation. We feel a weaning and receiving program should include nutrition and health protocols including target intakes, injectable AND feed-grade antibiotic treatment protocols, and necropsy protocols.

Prior to calves arriving at your operation, make certain your feed inventory is fresh, pens are scraped clean, water tanks cleaned and disinfected, and bunk cables or rails are adjusted for the size of cattle you receive. As calves enter the pen, they should have immediate access to highly-palatable grass or prairie hay. Filling calves up for 12-24 hours on prairie hay equalizes the cattle so differences in fill due to removal from the dam and trucking are minimized. Essentially, it is intended to help insure individual intakes are representative of the pen average from the first day on feed.

Aside from being highly palatable, receiving rations should be nutrient dense since intakes will likely be low during the first few days, particularly on bawling calves. Rations for incoming cattle should generally be at least 14.5% crude protein, 40% moisture or less, and 35 to 65% roughage. Fermented forages should be introduced slowly, after the calves are readily coming to the bunk. We recommend receiving cattle with high quality grass hay in the bunk, and top-dressing 0.5% - 1% of bodyweight (BW) on a dry-matter (DM) of starter ration over the hay 12-24 hours later. Over the following days, increase intake of the calves carefully and consistently. Your goal should be to achieve an intake of 1.7-2% of BW DM basis by day 7-10 depending on your program. Often times, days 3-5 are critical, in particular with bawling calves, as they suddenly rush the bunk wanting more feed. If the cattle have been slow consuming starter ration and then a day comes when they are cleaned up in a few hours and wanting more feed, I recommend using 0.5%-1.0% BW of prairie hay in the afternoon to take the edge off of them. I prefer this method as compared to increasing the ration intake drastically over a 1-2 day period. In general, I prefer feed increases of no more than 0.25% BW on a DM basis (1.25 lb DM for a 500 lb calf). Passage rate is 48 hours so once you have raised intakes it takes

two full days to realize the total affect, therefore; make sure the cattle clean up each increase for 2 days before increasing again.

I cannot stress enough that “reading the bunk” is a misnomer when starting calves, you must read the cattle. In most situations, between days 2 and 21 you should be “behind” the cattle, meaning they have their feed cleaned up 4-12 hours ahead of the next day’s feeding. As a result, they will aggressively approach the bunk at feeding time, which is exactly what you want as it makes identifying sick calves easy. But, if you are not reading the cattle, and by that I mean:

- gauging the aggressiveness with which they approach the bunk
- monitoring manure consistency, and
- noticing what time of day they clean up their feed

you will invariably get ahead of them. When you do get ahead of them, they often leave quite a bit of feed, and you may have to decrease intake quite drastically (25 to 50%) before they clean up what is offered. In my opinion, that scenario is when you are at the greatest risk of sickness. If you do get ahead of them, and follow them slowly down on intake, you may never get the daily feed intake that you would otherwise.

In reality, everybody gets ahead of calves some time and knocks them off feed. At the first sign it has happened to a set of calves, I recommend cutting intake drastically in order to make the calves aggressive again. It is better not to “chase them down” on intake, but rather to get underneath them immediately. Do not be afraid to cut DM intake by 25% or more in order to do so.

Nutrition of highly-stressed calves is a topic of frequent discussion amongst the GPLC nutritionists, and as a group we agree that a starter program benefits from addition of certain key ingredients. The starter supplements many of you use (i.e. E-Z Start, Right Start, High-Stress Balancer, etc.) contain a high proportion of their trace minerals from chelated sources, include chromium propionate at a dose proven to drive intake the first 30 days on feed, and may contain yeast products or direct-fed microbials designed to enhance energy utilization and/or gut health. All of these products add cost, but during the first 30 days on feed, we are focused on best cost, not least cost – and the two are absolutely not the same during this time period. On a per head basis, the additional cost of these ingredients amounts to approximately \$4-8 over the first 30 days. In other words, it represents far less than 1% of your investment in the cattle. We would be happy to share the research we use to make these decisions with you if you desire, but rest assured we have your return on investment in mind.



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