

## BEEF CATTLE COMMENTS

### VOLUME 22 NUMBER 3, August 2013

*Prepared by: Mike Baker, Beef Cattle Extension Specialist, Cornell University*

Phone: 607-255-5923  
Fax: 607-255-9829  
E-mail: [mjb28@cornell.edu](mailto:mjb28@cornell.edu)  
Web page: [www.ansci.cornell.edu/beef/](http://www.ansci.cornell.edu/beef/)

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1. CATTLE WANTED FOR CORNELL BEEF MERCHANDIZING COURSE



**Cornell Students Want Your Heifers**  
*for the*  
**Cornell Beef Replacement Sale**



**Students of the BEEF MERCHANDISING CLASS**  
**request your consignments**

**Your participation provides hands on learning experience for the students and an alternative market for your quality replacement females.**

*Hosting of the Sale....*

**The Cornell Beef Merchandizing Class**

*Consignments due....*

**August 15, 2013**

*Sale Date....*

**SATURDAY, OCTOBER 26, 2013**

*Location will be.....*

**CORNELL UNIVERSITY**  
**TEACHING & RESEARCH CENTER**  
**BEEF BARN**  
**DRYDEN, NY 13053**

**FOR MORE INFORMATION:**

**CONTACT: MIKE BAKER**

**Cornell Beef Extension Specialist**

**[mjb28@cornell.edu](mailto:mjb28@cornell.edu)**

**607-255-5923**

**WE GROW THE *SOY* AND THE BEEF**

## 2. NEW YORK FEEDLOT AND CARCASS VALUE DISCOVERY PROGRAM, 2013/2014

### **PURPOSE:**

Teach cow/calf producers the value of their calves based on performance in the feedlot and on through the packing plant.

**Who** should participate. Commercial cow/calf and seedstock producers interested in evaluating their breeding and sire selection programs.

**What.** Four steers or four heifers from the same sire (recommended) are to be consigned. They will be fed a high-energy ration to their optimal profit potential (OPP). The OPP will be determined by animal performance, cost of gain, market conditions and evaluation by the test station manager.

**Where.** Cattle will be fed at the Cornell University Teaching and Research Center, Beef Unit located in Harford, NY. *Cornell University assumes no responsibility for the loss of cattle consigned to this program.*

**NEW – Cattle not arriving with a negative BVD test, will be tested at the owner’s cost upon arrival.**

### **REQUIREMENTS:**

1. Recommended minimum of 4 steer or heifer calves. For the most meaningful information, it is recommended that the calves be from the same sire. Minimum (recommended) weight at delivery: 450 lbs. If space allows, more than eight head per consignor may be accepted.
2. Castration and de-horning is to be completed, healed and dry prior to October 8.
3. Heifers are to be guaranteed open.
4. Cattle are to be weaned no later than October 8. It is highly recommended to begin the first series of vaccinations four to six weeks prior to weaning, so that entire health program is completed two weeks prior to weaning.
5. Vaccinations are to include BRSV, IBR, PI-3, BVD, 7-way Clostridial, *Histophilus somnus*, and *Mannheimia haemolytica* (formerly *Pasteurella haemolytica*) and *Pasteurella multocida*. (leucotoxin). Booster is to be given according to label.
6. Calves are to receive a selenium injection, be de-wormed, treated for grubs, and free of ringworm and warts.
7. Calves should be fed a 12%-14% crude protein grain mix at 1-1.5 lbs. per 100 lbs. of body weight. For example a 550-lb. calf should receive 5 lbs-7.5 lbs. of grain/day.
8. Beef Quality Assurance guidelines of neck only and when labeled subcutaneous injections are to be followed.
9. Beef Quality Assurance certification required.

### **2013/2014 Schedule *\*\*Tentative\*\****

<b><u>Date</u></b>	<b><u>Item</u></b>
September 10, 2013	Recommended last day to complete vaccinations (including boosters)
September 15, 2013	Consignments, along with \$30/head due.
October 8, 2013	Last day to wean calves.
October 23, 2013	Mandatory last day to complete vaccinations (including boosters)
November 7, 2013	Deliver calves to Cornell Beef Cattle T& R Center, Harford, NY
November 14, 2013	Official start of program.

**COST.** Cattle will be charged for feed, yardage, medical, freight and a \$30 fee to cover costs of individual data collection. Total cost will vary with performance. The total average cost in the 2012/2013 feeding period was

\$590/head, but is subject to change. A check payable to Cornell University for \$50/head is due at delivery to cover initial costs.

**INFORMATION.** At a minimum, consignors will receive:

1. Feedlot performance-total gain, average daily gain, dry matter intake, feed efficiency.
2. Carcass measurements: carcass weight, ribeye area, back fat, quality and yield grade.
3. Economic performance-cost of gain, profit, feeder calf value.

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To consign cattle, or for more information, go to <http://ansci.cornell.edu/wp/beefcattle/> or contact Mike Baker, Cornell Extension Specialist, 607-255-5923, [mjb28@cornell.edu](mailto:mjb28@cornell.edu).

### **3. BQA UPDATE**

#### a) Minimum components needed for a working facility

The purpose of the Beef Quality Assurance (BQA) program is ensuring the customer that they are responsibly raising their cattle to produce beef that is safe, wholesome and tastes good. Animal welfare is a key principle for BQA certification and is defined as providing the necessary care to protect the health and well-being of animals. Without proper working facilities producers cannot properly care for sick or injured cattle, assist with calving difficulties or prevent disease through routine vaccination. Therefore, beef producers must have adequate working facilities not only to meet BQA certification but to demonstrate that they are responsible caretakers of cattle.

Fortunately working facilities need not be burdensomely expensive or elaborate. The following information provides guidelines on the minimum components of a cattle working facility.

#### **Headgate**

The headgate is the most important part of the entire working facility. It should be sturdy, safe, and easy to operate and work smoothly and quietly. Headgates are of two basic types. **Self-catch.** This is easiest to operate for one person; cattle work fast, and exit easily. However in cow calf operations, cows soon become timid of getting caught, requiring an operator to pull the headgate closed. Self-catch headgates are inconvenient for working cows and young calves at the same time as the smaller calves will go through headgate without catching their head. The **scissors-stanchion** type has two halves that pivot at the bottom; is lower cost, simple but requires an operator. It can cause shoulder bruises and at times cattle can get through without being caught. Both types of headgates are available with either straight or curved stanchion bars. The straight-bar stanchion is extremely safe and will rarely choke an animal. The disadvantage is animals can move their heads up and down unless a nose bar is used. The curved-bar stanchion offers more control of the animal's head but is more likely to choke the animal than the straight-bar type.

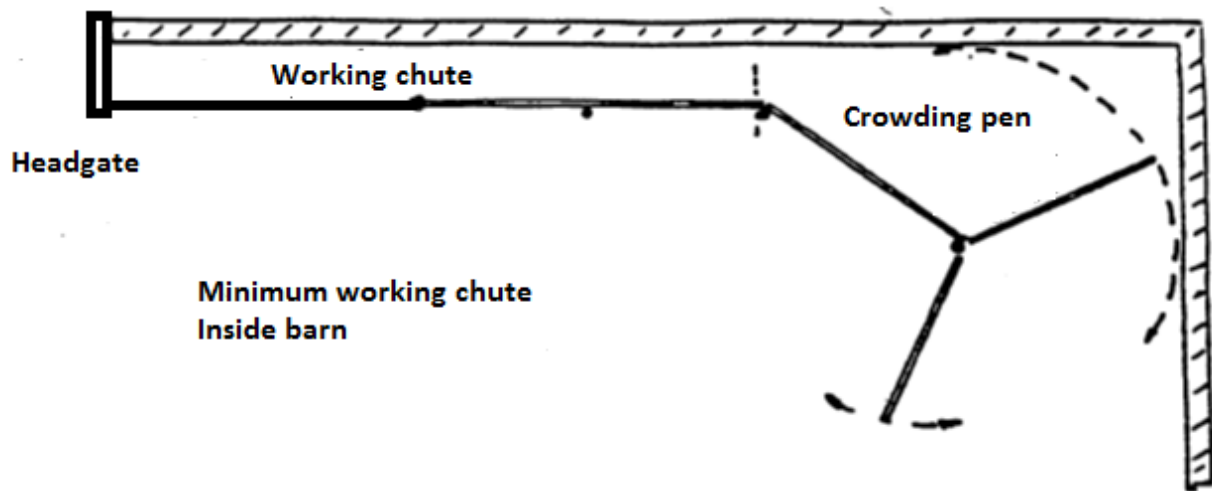
#### **Working chute**

The working chute holds the cattle in a single file ready to enter the headgate. As cattle instinctively follow each other, the chute should be long enough to hold at least three animals, preferably four to five. The biggest mistake producers make in designing a facility is not making the chute wide enough. It should be no wider than 32 inches and for most cattle 1600 lb or less, 28 inches is ideal. If the chute can be curved it will help move the cattle even easier. A chute with sloping sides will allow different sizes of cattle to be worked and still prevent turning. Solid sides up to 48 inches can ease cattle

movement. If the entire chute is solid, then the cattle cannot see you and therefore will be difficult to move forward.

### **Crowding pen**

A crowding pen or funnel pen with a swinging gate is needed to crowd cattle into the working chute. A circular or angular pen helps to get the cattle facing the right way and entering the pen in single file. Solid sides and crowd gates help to avoid the cattle being distracted. It also makes the cattle see the chute as the only way out. For most beef operations in NY the crowding pen should be designed to hold less than 10 cows (120 ft<sup>2</sup> - 150 ft<sup>2</sup>).



**Optional components** – vary with each setup and producer’s preferences and budget. Each can add to efficiency and flexibility.

Holding pens will allow for faster handling of cattle as they can be sorted and held prior to moving into the crowd pen. They also prevent the mixing of treated cattle back into the main herd. If cattle are held overnight the pens must be of adequate size and should have water available.

Squeeze chute; gives greater control of the animal. This serves to reduce struggling and thus animal stress. Most have gates and sections that swing out to give greater access to different parts of the animal.

Cutting gates along the working chute allow producer sort animals out of the working chute before they get to the headgate. This can also be helpful if an animal goes down in the chute.

Blocking gates located along the working chute will prevent cattle from moving ahead or back. They usually slide across the chute on a track or drop down guillotine style on a rope and pulley.

Back stops are similar to blocking gates except they allow the animals to move forward and only prevent them from moving back.

Scales can be located in the working chute. Some commercial squeeze chutes have weight bars mounted under them to provide scale squeeze combination; convenient, but more expensive.

Palpation cage is located 5 ft. – 7 ft. behind the headgate. This blocks the oncoming animal and allows producer to get behind the animal. This is especially convenient for heat synchronization, artificial breeding and palpation for pregnancy.

Man passes are for safety of the operator. They should be 11” to 14” wide and placed in the crowding pen, working chute or any place one could become trapped and need a fast escape route.

Loading ramps for tractor trailers or straight trucks can be placed directly off the working chute or out of the holding pen. Cattle will move easiest on a ramp with 12” run and 4” rise.

Table 1. Corral and Working Facility Dimensions

	To 600 lb	600-1200, lb	>1200 lb and Cow/calf
Pen space, sq ft/head)	14	17	20
Crowding tub, sq ft/head)	6	10	12
Working chute-vertical sides			
Width, in	18	20-24	26-30
Minimum length, ft	20	20	20
Working chute-sloping sides			
Width at bottom, in	13	15	16
Width at top, in	20	24	28
Minimum length, ft	20	20	20
Working chute fence			
Height, - minimum, in	45	50	60
Depth of posts – minimum, inches	30	30	30
Corral fence			
Height, in	60	60	60
Depth of posts – minimum, inches	30	30	30
Loading chute			
Height, stock trailer, in			15
Height, pickup truck, in			28
Height, straight truck, in			40
Height, semi-truck, in			48
Width, in	26	26	26-30
Length – minimum, ft.	12	12	12
Rise, in/ft	3 ½	3 ½	3 ½

Dimensions from Corral and Working Facilities for Beef Cattle, GPE – 5002

## References

Beef Housing and Equipment Handbook. 1986. Midwest Plan Service. 4<sup>th</sup> Edition.

Facilities for Beef Cattle. 1980. Cornell Beef Production Reference Manual. FS 6000.

Handling Facilities for Beef Cattle. SP690. University of Tennessee.

The Cattle Industry's Guidelines for the Care and Handling of Cattle. National Cattlemen's Beef Association and Beef Quality Assurance.

b) Preparation for weaning.

Weaning is a stressful event. The diet changes, facilities change, the cow calf relationship changes, many changes are going on in the life of the calf. Minimize the stress associated with these changes should be the goal of every beef husbandry man (woman). Doing so shows good stewardship, is the right thing to do and lastly has economic benefits. Vaccination for respiratory disease is a management practice that should be implemented on every farm. A suggested protocol is at the end of this article.

Other management practices to consider:

- If not completed at an earlier age, castration and de-horning should be done at least 4-6 weeks prior to weaning.
- Consider fence line weaning: cows and calves are separated by a robust fence. In this manner each can see one another which relieves some of the stress. It will not eliminate the initial volume of bawling but experience shows that it can reduce the number of days the noise is unbearable.
- Wean on grass. Fence line weaning where calves have access to high quality pasture has been shown to reduce sickness and support inexpensive gain. Begin stockpiling pasture about August 1 to be available for October/November weaning.
- Limited Nursing. Dr. Mike Apley, Iowa State University and Dr. W. Mark Hilton, Purdue report that they reduced weaning stress by allowing calves to nurse once daily for about a week before weaning. This is nearly impossible for a large ranch in range conditions, but many smaller herds successfully use it. The calves are limit-fed a complete ration allowing their rumen to adapt to stored feed, or should be able to be weaned on grass as described above.
- Weaning location. If cows are to be moved a long distance from the calves, the calves should remain and the cows moved. This keeps calves in a location that is familiar.
- Feed and water. The calf should be adjusted to the water source and delivery as well as the feedstuff following weaning. If the calf has only drank water out of a creek and only been fed pasture, drinking from a water tank and eating dry hay and/or grain will be a big adjustment.
- Ration. Rations should be formulated to provide sufficient energy for growth but enough forage to transition to stored feed. For normally weaned, well managed calves, a ration that is 50-60% concentrate and 37-40 Mcal/cwt. NEg is about ideal. Protein should be 13-13.5 %. Newly weaned calves cannot utilize urea as effectively as heavier cattle, so a natural protein source or a supplement that includes a high bypass source with urea is preferred. Additional minerals including calcium, phosphorous and potassium may be required depending on the feedstuffs fed. Vitamins A, D and E should be part of the supplement. Trace minerals including zinc, copper and selenium may be needed in higher levels than the requirement to help fight disease. Table 7 below lists recommendations for minimum nutrient requirements for stressed calves. Work with your Cornell Cooperative Extension Educator, nutritionist or feed dealer to balance a ration meeting these requirements.

Table 7. Suggested Nutrient Concentrations for Stressed Calves (dry matter basis)

Nutrient	Unit	Suggested range
Dry matter	%	80-85
Crude Protein	%	12.5-14.5
Net energy for maintenance	MCal/lb.	.59-.73
Net energy for gain	MCal/lb.	.36-.41
Calcium	%	.6-.8
Phosphorous	%	.4-.5
Potassium	%	1.2-1.4
Magnesium	%	.2-.3
Sodium	%	.2-.3
Copper	ppm	10-15
Iron	ppm	100-200
Manganese	ppm	40-70
Zinc	ppm	75-100
Cobalt	ppm	.1-.2
Selenium	ppm	.1-.2
Iodine	ppm	.3-.6
Vitamin A	IU/lb	1800-2700
Vitamin E	IU/day	180-230

NRC (1996)

**Vaccination Protocol to reduce bovine respiratory disease in weaned calves**

Effective	Vaccine Schedule
<b>Best</b>	<ul style="list-style-type: none"> <li>a. <u>Six weeks prior to weaning</u>: initial vaccine. Use only vaccines approved safe for calves nursing pregnant cows.</li> <li>b. <u>Three – four weeks prior to weaning</u> administer vaccines requiring a booster.</li> </ul>
<b>2<sup>nd</sup> Best</b>	<ul style="list-style-type: none"> <li>a. <u>Two - three weeks prior to weaning</u>: initial vaccine.</li> <li>b. <u>At weaning</u>, administer vaccines requiring a booster.</li> </ul>
<b>3<sup>rd</sup> Best</b>	<ul style="list-style-type: none"> <li>a. <u>At weaning</u> or two weeks post-weaning: initial vaccine.</li> <li>b. <u>Two – three weeks later</u>, administer vaccines requiring a booster.</li> </ul>
<b>USELESS:</b>	Killed vaccine at weaning with no booster

**Always check label information and consult with a veterinarian regarding safe vaccine use in pregnant animals.** If used incorrectly, ABORTIONS can result. Modified live vaccines including a BRSV fraction generally recommend a booster for BRSV.

**To design the best protocol for your farm consult your herd veterinarian.”** It is suggested that the following disease be included in your vaccination program:

- (1) IBR, BVD, PI3, BRSV
- (2) *Mannheimia haemolytica* (formerly *Pasteurella haemolytica*)
- (3) *Haemophilus somnus*
- (4) *Pasteurella multocida*
- (5) 7-way Clostridial



#### **4. 2014 NY ALL FORAGE BULL TEST – WHERE DOES YOUR BULL FIT IN?**

Nancy Glazier, Small Farms Specialist, NWNY Team, CCE



**Figure 1. Graduate of the 2012-213 NY All Forage Bull Test**

Work is gearing up for the second year of the NY All Forage Fed Bull Test. The inaugural 112-day test was a success with an average gain of 2.1 lbs; predicted gain using modeling was 1.5 lbs on a diet of good quality second cutting hay and mineral. The six consignors of the 14 bulls of five breeds participated. Monthly updates were provided to consignors and other producers with the information posted to: <http://ansci.cornell.edu/wp/beefcattle/>. The young bulls were body conditioned scored and weighed every 28 days. Hip heights were measured to determine frame scores. Breeding soundness exams were performed at the conclusion of the test.

New York is well positioned to take advantage of the growing demand for pasture-finished beef due to its rich grazing resources and proximity to large urban markets. One of the keys to profitable production of pasture-finished beef is the use of genetics that will result in a quality product within a feasible timeframe. Raising animals through a second winter presents challenges both from an economical and production standpoint. Consequently, the ideal scenario for producers is to combine appropriate genetics and sound management to achieve good carcass quality within 20 months. This will allow producers to calve on pasture in the spring (~May) and finish animals prior to the onset of a second winter feeding season (~ December). The forage based test is a cost-effective option to help breeders and buyers assess and compare bull cohorts raised under commercial conditions.

The goal for the upcoming test is 30 bulls. An optional 112 day pasture test will be added. The 2014 program will begin with bull delivery early January. The stored feed test will end early May and resume after a short transition period on pasture. Dates of birth need to be from January 1, 2013 to June 15, 2013. If you are interested in consigning a bull, contact Nancy Glazier at 585.315.7746, [nig3@cornell.edu](mailto:nig3@cornell.edu) or Mike Baker at 607.255.5923, [mjb228@cornell.edu](mailto:mjb228@cornell.edu).

#### **5. NEW YORK FEEDLOT AND CARCASS VALUE DISCOVERY PROGRAM**

The 17th New York Feedlot and Carcass Value Discover Program officially started on November 18, 2012 and concluded with the last of the cattle being slaughtered on June 27, 2013. There

were 88 head consigned from 8 producers in New York and Vermont. The Final Report on Feedlot and Carcass performance is below. The report on the economics will be presented in a future issue.

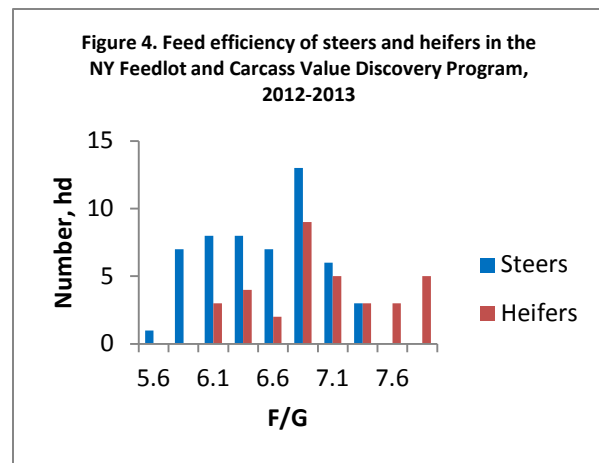
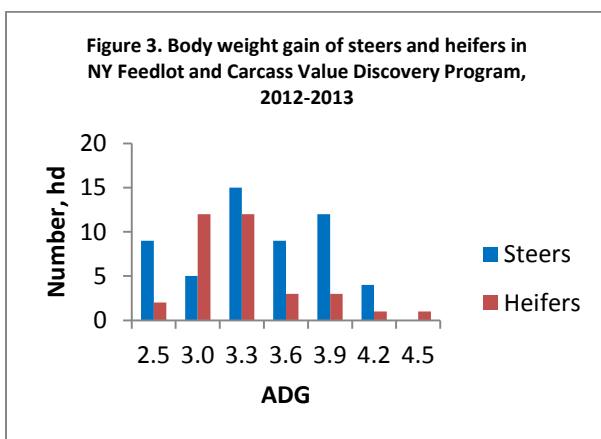
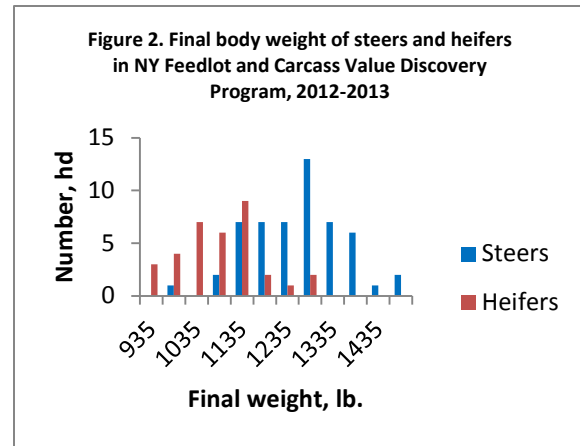
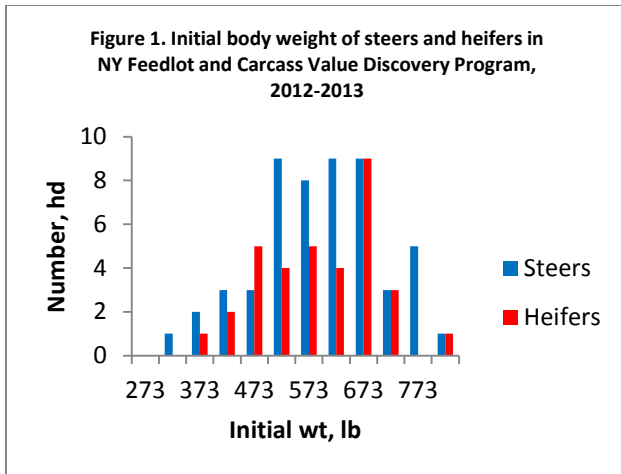
Feedlot Performance.

Feedlot performance is shown in Table 1 and Figures 1-4. As expected steers had greater initial and final body weights than heifers on average (Table 1) and number of head in each weight group (Figures 1-2). At harvest the average age for steers and heifers was 13 months. While on average steers had greater ADG than heifers (3.6 lb. vs. 3.2 lb.) the variability was greater. There were more steers with an ADG less than 3.0 lb. and more heifers with ADG greater than 4.2 lb. (Figure 3). Finally the amount of feed required to producer one pound of gain (F/G) was less for steers than heifers. Distribution of F/G showed that a greater proportion of steers were more efficient than heifers (Figure 4). Feed efficiency is calculated based on mature size, average daily gain and carcass fatness.

Averages are interesting to look at, but what is of most value is the range in values. Participants in the program use these data to identify areas for improvement in their herds.

**Table 1. Feedlot performance of Steers and Heifers in 2012-2013 New York Feedlot and Carcass Value Discovery Program**

Item	Steers			Heifers		
	Average	Minimum	Maximum	Average	Minimum	Maximum
N	53			34		
Initial weight, lb.	573	320	798	568	349	789
Finish weight, lb	1236	984	1440	1061	912	1258
Age at delivery, mo.	7.1	5.3	9.7	7.4	5.8	10.7
Age at harvest, mo.	13.1	10.3	15.5	12.6	10.1	16.0
Days on feed	185	104	231	159	104	231
Average daily gain, lb.	3.6	2.5	4.4	3.2	2.4	4.5
Feed to gain, lb.	6.4	5.4	7.1	6.9	5.9	7.8

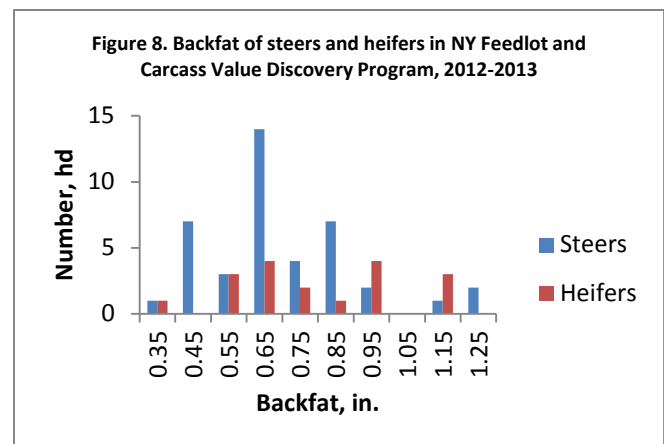
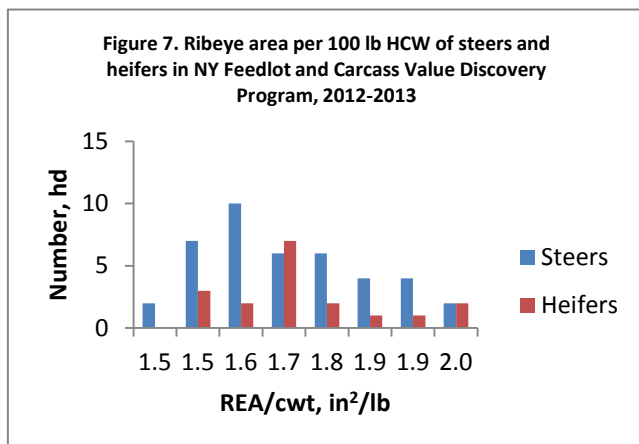
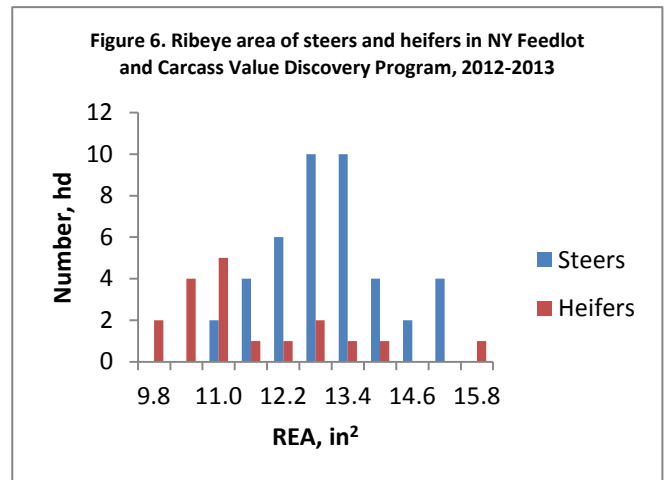
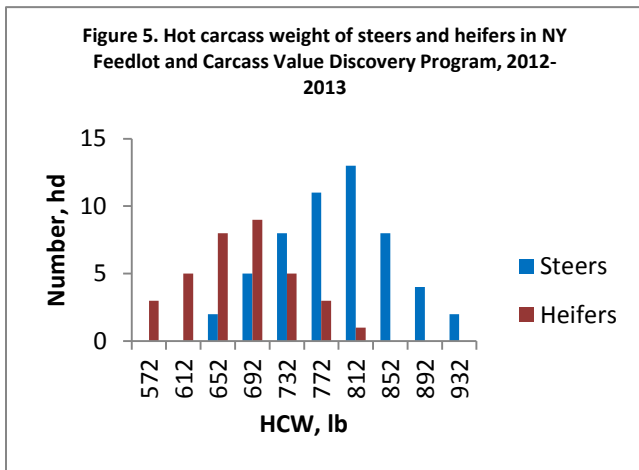


### Carcass Performance.

Carcass performance is shown in Table 2 and Figures 5-8. Reflecting greater final body weight in the steers, the average hot carcass weight (HCW) of steers was 116 lbs. greater than heifers. Discounts for underweight carcasses begin at 600 lb. There were no steers with underweight HCW, but 6 heifers were discounted for producing HCW less than 600 lb. Dressing percent varied from 58 to 66. Steers generally have more muscle than heifers and this was evident in ribeye area (12.8 in<sup>2</sup> vs. 11.4 in<sup>2</sup>, steers and heifers, respectively). Yet, when corrected for HCW, the average REA/cwt was the same for steers and heifers. The backfat of steers and heifers averaged 0.65 in – 0.74 in, respectively and greater than the desired 0.50 in at slaughter. As expected carcasses from steers were leaner than those from heifers (Figure 7); 60% of steers deposited <0.65 in compared to 44% of heifers. Yield Grade (YG) is a calculation of closely trimmed, boneless retail cuts and is reported on a scale of 1-5; 1=high yield and 5=low yield. Factors in this calculation are HCW, BF, REA and kidney, pelvic heart fat (not reported). Steers had a lower YG, therefore more yield than heifers. Nationally the percentage of cattle grading low Choice or better is 65%. Cattle consigned to the NY Feedlot and Carcass Value Discovery Program graded in excess of 85%. This is due in part because cattle are marketed when they are ready, known as “topping off the pen” compared to large feedlots that market a pen at a time. However, the predominantly Angus based genetics are also a reason for impressive grading.

Table 2. Carcass performance of steers and heifers in the NY Feedlot and Carcass Value Discovery Program, 2012-2013

Item	Steers			Heifers		
	Average	Minimum	Maximum	Average	Minimum	Maximum
N	53			34		
Hot carcass weight, lb.	772	639	926	656	555	784
Dressing percent	62	58	66	62	59	66
Ribeye area, sq.in.	12.8	10.7	15.2	11.4	9.5	15.3
REA/cwt HCW	1.7	1.4	2.1	1.7	1.5	2.0
Backfat, in.	0.65	0.30	1.20	0.74	0.30	1.10
Yield grade	3.3	1.8	4.4	3.7	2.8	5.0
% ≥ Low Choice	85			88		
% ≥ Middle Choice	53			63		
% Select	15			13		
% YG 1-2	29			11		
% YG 4-5	17			39		
% Dark and/or Standard	2			0		



According to interviews with retailers and distributors, the National Beef Quality Audit reported bench marks for quality grade (Table 3). Cattle from the VDP surpassed or met quality grade goals for Prime and upper 2/3 Choice and low Choice.

Table 3. Quality grades vs. goal

	Prime	Upper 2/3 Choice	Low Choice	Select
NBQA <sup>1</sup>	2.7%	22.9%	38.6%	31.5%
VDP <sup>2</sup>	9%	46%	30%	14%
Goal	5%	21%	33%	31%

NBQA = data collected in the 2011 National Beef Quality Audit

VDP = data collected from the NY Feedlot and Carcass Value Discovery Program, 2012/2013

Again, farmers will use this data to compare their management and genetics to the contemporaries consigned to the VDP to make adjustments to improve their competitiveness while producing a consistent product that is desired by the consumer.

Next month, I'll provide information on the profitability of this year's program.

The purpose of the Value Discovery Program is to teach cow/calf producers the value of their calves based on performance in the feedlot and on through the packing plant. Calves are accepted in November and fed till their most optimal profit potential during March-July. For more information see program details in this newsletter or contact me at Mike Baker, Cornell Beef Specialist [mjb28@cornell.edu](mailto:mjb28@cornell.edu), 607-255-5923.

## 6. INDUSTRY STRUCTURE SHIFTING-NY GAINING IN BEEF NUMBERS

It's quiet, it's subtle and it's fairly recent, but structural shifts in the beef industry are significant. And it's not over yet.

The Midwest sits at the fulcrum of this shift, says Jim Robb, director of the Livestock Marketing Information Center in Denver, particularly the cow-calf and farmer-feeding operations that are part of a mixed cattle-crop Midwest farm. "Even though their cow-calf operation is profitable, it's not as profitable as growing more crops, especially corn and soybeans," Robb says.

That means those farms, quietly but surely, are exiting cattle production to focus on crops, a trend driven by grain and ethanol policy. "I think we'll see that trend continuing," Robb predicts.

**However, other regions are gaining cow-calf production. "In the Upper Lakes region, in some areas, we see a transition out of dairy production and into cow-calf production," he says, noting Wisconsin and New York in particular.**

And while Texas and Oklahoma will see some repopulation of the cowherd, "we'll see rather consistent growth from Kansas north and west." In addition, as smaller Midwest cow herds fade into a corn-colored sunset, the average size of cow operations will likely get bigger as more cows populate the Northern Plains and other regions.

"Industry Structure Adjusts To Drought and Regulation", Burt Rutherford. May 28, 2012. BeefMagazine.com. Accessed May 31, 2013

## 7. FEEDER'S CORNER- "Pre-harvest practices in feedlots that may reduce *E. coli* O157:H7.

The National Animal Health Monitoring Service recently reported on pre-harvest food safety practices in US feedlots. They listed several management practices evaluated for controlling *E. coli O157:H7* at harvest. Table 1 lists these practices and their reported efficacy. Because most past research has focused on *E. coli O157*, the description of effects below will be limited to this pathogen. This is not an exhaustive list of practices available for prevention of foodborne diseases.

Table 1. Evaluation of practices on their impact of reducing fecal shedding of *E. coli O157:H7* in feedlot cattle

Practice	Effect on <i>E. coli O157:H7</i> shedding
Feeding distiller's grains	Most but not all studies show an increase
Fasting prior to slaughter	Increase
Treating water with chlorine	Negligible
Use of ionophores (Rumensin® or Cattlyst®)	Inconclusive
Switching from high grain to high forage prior to slaughter	Inconclusive
Feeding seaweed extract (e.g., Tasco-14®)	Insufficient evidence
Use of beta-agonists (OptaFlexx® or ractopamine, Zilmax® or zilpaterol)	Minimal effect
Use of probiotics (e.g., Lactobacillus acidophilus, Bovamine®)	Shows greatest promise but varies with product

In Table 2 the percentage of US feedlots using pre-harvest practices that may *E. coli O157:H7* are listed. Many are infrequently used in feedlots, especially among those with capacity of fewer than 1,000 head.

Table 2. Percentage of feedlots by management practice and by feedlot capacity

Management practice	Feedlot capacity (no. head)	
	1-999	1,000 or more
	Percentage of feedlots	
Fed distiller's grains as part of the ration	25.6	90.5
Fasted prior to transportation to slaughter	11.3	15.9
Provided water treated with chlorine	7.9	8.2

Gave an ionophore, such as Rumensin® or Cattlelyst®	28.7	90.5
Switched from a high grain ration to a primarily hay ration at finish	7.3	3.3
Fed seaweed extract (e.g., Tasco-14®) prior to slaughter	0.0	0.6
Fed a beta-agonist (OptaFlexx® or ractopamine)	3.9	36.9
Fed a beta-agonist (Zilmax® or zilpaterol)	1.6	10.6
Fed probiotics in feed (e.g., Lactobacillus acidophilus, Bovamine®)	8.3	28.5

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The authors concluded that pre-harvest practices specifically targeted toward reducing shedding of foodborne pathogens are not commonly practiced in US feedlots. For the complete report go to [http://www.aphis.usda.gov/animal\\_health/nahms/feedlot/](http://www.aphis.usda.gov/animal_health/nahms/feedlot/) and click on “Preharvest Food Safety Practices in U.S. Feedlots, 2011”.

### **8. GLCI GRAZETTE: Cover Crops Improve Soil Health and Upcoming Meetings**

(Courtesy GLCI Gazette, [http://www.ny.nrcs.usda.gov/technical/pasture\\_grazing/grazette/index.html](http://www.ny.nrcs.usda.gov/technical/pasture_grazing/grazette/index.html))

### **Pasture Soil Health News**

**Cover crops** are a great way to improve soil health, and most of them can also be grazed by livestock, and improve profitability as a bonus! Here’s the beginning of an article that appeared in Beef Magazine in October of 2012 –

#### ***Cocktail Blends Provide Fall Grazing, Soil Health*** by Ed Haag, AgscribeMedia

*For many farmers in the grain and beef production regions of the U.S., the planting season ends when the last of the seed wheat or corn kernels are tucked neatly in the ground, but for a growing number of savvy farmers, it’s only the beginning.*

*“By not planting that cover crop after harvest, you’re passing up on a great opportunity to make more money and improve your soil health,” says Ken Miller, district technician for the Burleigh County Soil Conservation District, Bismarck, ND.*

*Miller should know. He and his colleagues have collected over five years of research data supporting the premise that cover crops more than pay for themselves monetarily and from an overall soil health*

*perspective.*

*“When used in conjunction with late-season cattle grazing, the **net return on the cover crop is over \$60/acre,**” Miller says. He notes that \$60/acre is just the return for extra animal units grazed and doesn’t reflect in any way the monetary benefits associated with planting the following year’s crop into improved soil.*

Finish reading the article at : <http://beefmagazine.com/pasture-health/cocktail-blends-provide-fall-grazing-soil-health>

**Twilight Grazing and Pasture Meeting – Monday, August 19<sup>th</sup> – 6:00 pm to 8:00 pm** – Ted and Tracy Barbour Family Farm, 994 Paulhamus Hill Road, Cogan Station, PA - The Barbours have a cow/calf herd and retain the calves for grass finish at 18-20 months using high density grazing management. They worked with neighboring landowners enrolled in the CREP Program to graze contract acreage under emergency grazing provisions in 2012 with great success. Routine haying/grazing provisions have now been approved in Pennsylvania for certain CREP practices and can be a valuable tool for the management of CREP acreage. Michael Sherman, Executive Director of the Lycoming County USDA Farm Service Agency, will discuss requirements for adding routine grazing provisions to existing CREP contracts. Please contact Dave Hartman at Penn State Extension if you plan to attend. Call at 1-800-851-9710 or 784-6660 or email at [dwh2@psu.edu](mailto:dwh2@psu.edu).

**Summer Annuals Augment Cool Season Grasses With Arden Landis – Wednesday, August 21<sup>st</sup> – 11:00 am to 2:00 pm** - Doug and Martsje Riehlman, 6242 Rt 11, Homer (Cortland County) - The Riehlmans intensively manage their high value acreage to provide feed for their dairy. After the shortage of forage last year they were looking to maximize yields during the summer months. They took off the 1<sup>st</sup> cutting and plan on planting a Sudan Grass Hybrid. Dairy Consultant, Arden Landis from Kirkwood, PA, will discuss how summer annuals can maximize production through the use of double cropping on dairy farms. Supported by the NYS Grazing Lands Conservation Initiative, USDA’s Risk Management Agency and the NYS Dept. of Agriculture & Markets. Fay Benson will provide information on crop insurance tools to manage risks on farms. For more information on crop insurance go to: <http://www.agriculture.ny.gov/AP/CropInsurance.html>. Please RSVP to help us plan lunch which will be provided at each of the events with funding from the NY GLCI. Contact Sharon VanDeuson at 607-753-5078 or [shv7@cornell.edu](mailto:shv7@cornell.edu). For more information contact Fay Benson at Cortland Cooperative Extension, 607-753-5213 or [afb3@cornell.edu](mailto:afb3@cornell.edu)

## **9. TO DO SEPTEMBER/OCTOBER**

1. Consider marketing options for feeder cattle:
  - ◆ Special feeder calf sales, contact local sale barn for details
  - ◆ Retained Ownership, contact Mike Baker, 607-255-5923
2. Continue to monitor body condition of first and second calf heifers. If they drop below 4.5, they should receive supplemental nutrition.
3. The breeding season should last no more than 60 days. Make plans for keeping bull separate before and after the 60 day breeding season.
4. Line up supplies for fall roundup and weaning. Consider the following:
  - a) Enroll your herd in the Cow Herd Appraisal Performance System (CHAPS) record keeping



system, <http://www.chaps2000.com/>. This program provides important data on the productivity of your cows based on the performance of their calves.

- b) Buy ear tags to identify replacement heifers and cows.
  - c) If deemed necessary (consult your veterinarian to do a fecal egg count) worm cows and bulls.
  - d) Apply lice and grub control before November 5.
  - e) Vaccinate calf crop for IBR, BVD, PI<sub>3</sub>, BRSV, 7-way Clostridial. Also consider *Histophilus somnus*, and *Mannheimia haemolytica* (formerly *Pasteurella haemolytica*) and *Pasteurella multocida*. (leucotoxin). If using a modified live vaccine, this must be done after calves are weaned unless otherwise labeled. Killed vaccine products can be used on nursing calves.
  - f) Treat calves for worms and grubs and supplement with Selenium.
5. Pregnancy test and cull all open cows.
  6. Cull problem cows and marginal producers. Production data is easily obtained using CHAPS.
  7. Take forage sample for nutrient analysis. Depending on your locality, hay may be in short supply or of poor quality. Allocating the best feed to younger, higher producing animals will stretch out your supply. Contact local Cornell Cooperative Extension office for information.
  8. Consider taking soil samples and top dressing fields requiring lime, phosphorous and/or potash.

## 10. EVALUATE YOUR GENETICS

- a) New York Feedlot and Carcass Value Discovery Program  
Purpose: Teach cow/calf producers the value of their calves based on performance in the feedlot and on through the packing plant. Calves are accepted in November and fed till their most optimal profit potential.
- b) NY All Forage Bull Test  
Purpose: To develop and evaluate the performance and quality of young bulls on a typical commercial forage diet. As the predominant feedstuff used in a cow/calf operation is forage, the data collected will assist producers in selecting bulls raised in conditions similar to the environment under which they will be expected to perform.

If you are interested and/or have questions, please contact me at 607-255-5923 or [mjb28@cornell.edu](mailto:mjb28@cornell.edu). Details are also available at <http://www.ansci.cornell.edu/beef>