BEEF CATTLE COMMENTS

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1. PROFIT OPTIMIZATION AND EVALUATION PROGRAMS

Below, please find a summary of three programs designed to increase the competitiveness and profitability of your operation. Whether you sell feeder cattle, finish your own beef or sell seedstock, product evaluation and marketing are key components to your success. Each of these programs has been designed and developed for the New York beef cattle industry with the goal of helping you learn more about your cattle and ultimately increase their value.

I would be happy to visit with you individually and/or provide you with contact information of past participants. With feed cost at record levels, now is the time to explore new avenues of evaluation and marketing. These programs help you do that.

a) Cornell Feedlot and Carcass Value Discovery Program – EARLY BIRD ENROLLMENT BY SEPTEMBER 15 $30, AFTER SEPTEMBER 15 $35/head.

Purpose: Teach cow/calf producers the value of their calves based on performance in the feedlot and on through the packing plant. Cattle can be fed conventionally or "natural" and marketed accordingly. Calves are accepted in November and fed until their most optimal profit potential during March-July. For more information contact Mike Baker, Cornell Beef Specialist mjb28@cornell.edu, 607-255-5923 or www.ansci.cornell.edu/beef

b) Empire Heifer Development Program – EARLY BIRD ENROLLMENT BY SEPTEMBER 15 $30, AFTER SEPTEMBER 15 $35/heifer.

Purpose: A management and marketing program for cow/calf producers to evaluate replacement heifer prospects and offer a marketing opportunity for quality heifers. Calves are accepted in November. Heifers can be bred artificially at the heifer rearing facility, or returned home for breeding. Eligible heifers can be sold in April. For more information, contact Mike Baker, Cornell Beef Specialist mjb28@cornell.edu, 607-255-5923 or www.ansci.cornell.edu/beef

c) Cornell Beef Replacement Sale – Consignments due September 15.

Purpose: To 1) add value to quality bred commercial and purebred females 2) supply a source of high quality commercial and purebred replacement cattle bred to calving appropriate bulls and 3) provide an opportunity for Cornell undergraduate students to gain real world experience through organizing and facilitating a beef cattle sale. Sale date is October 30, 2010. For more information, contact Mike Baker, Cornell Beef Specialist mjb28@cornell.edu, 607-255-5923 or www.ansci.cornell.edu/beef

2. NEW YORK FEEDLOT AND CARCASS VALUE DISCOVERY PROGRAM-REQUIREMENTS

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.*

REQUIREMENTS:

1. **NEW – Cattle not arriving with a negative BVD test will be tested at the owner's expense**
2. 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.
3. Castration and de-horning is to be completed, healed and dry prior to October 1.
4. Heifers are to be guaranteed open.
5. Cattle are to be weaned no later than October 1. 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.
6. Vaccinations are to include BRSV, IBR, PI-3, BVD, 7-way Clostridial, Haemophilus somnus, and Mannheimia haemolytica (formerly Pasteurella haemolytica) and Pasteurella multocida. (leucotoxin). Booster is to be given according to label.
7. Calves are to receive a selenium injection, be de-wormed, treated for grubs, and free of ringworm and warts.
8. 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.
9. Beef Quality Assurance guidelines of neck only and when possible subcutaneous injections are to be followed.
10. Beef Quality Assurance certification strongly recommended.

2010/2011 TIMETABLE (tentative):

September 15	Consignments, along with $30/head due.
September 15	Recommended last day to complete vaccinations (including boosters)
October 1	Last day to wean calves.
October 10	Mandatory last day to complete vaccinations (including boosters)
November 5-6	Deliver calves to Cornell Beef Cattle T& R Center, Harford, NY
November 20	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 2009/2010 feeding period was $355. 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.

To consign cattle, or for more information, contact Mike Baker, Cornell Extension Specialist, 607-255-5923, email mjb28@cornell.edu.

3. EMPIRE HEIFER DEVELOPMENT PROGRAM

Heifers: will be weighed and evaluated for rate of gain and growth throughout the evaluation. Producers will receive: contemporary group comparisons, temperament scores, ultrasound data, reproductive data, and marketing opportunities.

Prebreeding: Heifers will undergo a reproductive soundness exam 35 to 45 days prior to breeding, including a reproductive tract score exam, body condition score, pelvic measurements, body weight and functional soundness evaluation

Breeding: Estrous cycles will be synchronized and heifers will be bred on observed heat within 72 hours; those not observed in heat will be time bred. After AI breeding, natural service sires will be turned in with the heifers.

AI sires: will be selected by cattle owners and if requested with consultation from the program manager. Natural service sires will be selected based on calving ease and overall EPDs.

Health Protocol

NEW – Heifers must arrive with a negative BVD test or they will not be accepted.

*Minimum program to include vaccination for:
BRSV, IBR, PI-3, BVD, 7-way Clostridial, Haemophilus somnus, and Mannheimia haemolytica (formerly Pasteurella haemolytica) and Pasteurella multocida. (leucotoxin). Booster is to be given according to label. Selenium and treated for both internal and external parasites. [If you need assistance, consult with your veterinarian] More information will be supplied upon enrollment.

2010/2011 TIMETABLE (tentative):

September 15	Early bird sign up $30/heifer
September 22	Recommended last day to complete vaccinations (including boosters)
October 6	Last day to wean calves.
October 16	Mandatory last day to complete vaccinations (including boosters)
November 7	Deliver heifers to Erwindale Farm, Waterloo, NY
April 2011	NY Bull & Empire Heifer Sale (upon passing quality criteria)
Oct. 30, 2011	Cornell Replacement Beef Sale

Eligibility:
All breeds, as well as crossbred cattle, can enroll, with an emphasis on commercial heifers.
Heifers MUST be pre-vaccinated* according to protocol before arriving at feeding facility
Heifers must weigh a minimum of 450 pounds upon delivery. (no horns allowed)
Only heifers born in 2008 can be enrolled. (fall-calves will be considered, call first)

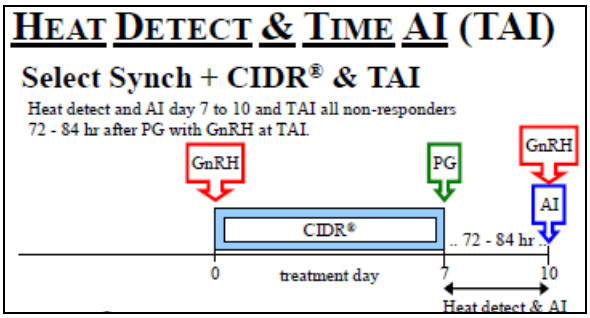
Approximate Cost:
$2.00/day per heifer. Other charges include treatment for illness, estrous synchronization, semen and AI breeding.
Option A: Heifers returning home after spring repro and ultrasound examinations. • Total cost should average under $400/heifer.
Option B: Heifers participate in program and sell at the spring NYBPA Bull & Empire Heifer Sale. • Total cost should average under $400/heifer. (does not include commission or sale expenses)
Option C: Heifers remain throughout the summer AI breeding and pregnancy examination, returning home in August 2010. • Total cost should average under $540/heifer.

Option D: Heifers remain throughout the summer and are sold in the October, 2010 Cornell Beef Replacement Sale. • Total cost should average under $600/heifer. (does not include commission or sale expenses)

To consign cattle, or for more information, contact Mike Baker, Cornell Extension Specialist, mjb28@cornell.edu, 607-255-5923.

4. EMPIRE HEIFER DEVELOPMENT PROGRAM - UPDATE

On June 15 & 16, twenty five heifers in the Empire Heifer Development program were bred artificially following estrous synchronization. The synchronization program consisted of injection of GnRH and insertion of a CIDR. Seven days later the CIDR was removed and an injection of PG was given. Heifers were bred on detection of estrous activity for 72 hours. At 72 hours, all heifers not exhibiting estrous were given an injection of GnRH and bred. See diagram below.



More information on estrous synchronization protocols can be found at the following link: http://beefrepro.unl.edu/pdfs/2010estrusovulationprotocols.pdf. One week after heifers were bred artificially, an Angus natural service sire was turned in with the heifers.

Pregnancy will be determined at the end of August using ultrasound. This is done to better determine if pregnancy is due to artificial breeding or natural service and to determine sex of the fetus.

The majority of these heifers will go back to owner's farm, but a select group will be offered for sale a the 5th Annual Cornell Beef Replacement Sale on October 30.

For more information contact Mike Baker, 607-255-5923, mjb28@cornell.edu.

5. NY FEEDLOT AND CARCASS VALUE DISCOVERY PROGRAM – FINAL REPORT

The final data on the cattle in the New York Feedlot and Carcass Value Discovery Program is shown in the table below.

There is a lot of data to digest. Every year what is most impressive to me is the range in values. For example, while the average conventionally fed steer showed a profit of $204/head, the profit ranged from -$121 to +$421 per head, a $542/head difference. The value of this program is to learn how your cattle performed and try to make improvements so that your cattle are on the high end of the range, not the low end.

Looking at the data, I come up with a few conclusions:

1. Conventional cattle had a higher average daily gain, fewer days on feed, were heavier at harvest, converted feed more efficiently and were cheaper to feed.
2. Due the higher costs and lower sale weights associated with the Natural steers

there was not much difference in profitability compared to the Conventional steers.

3. Naturally raised heifers were more profitable than the conventionally raised heifers due primarily to the higher sales price. All naturally raised cattle received a $0.17/lb of HCW premium. As the average difference in price between natural and conventional heifers was $0.22/lb, this tells me that there were more discounts in the conventionally raised heifers.

Performance of steers and heifers in 2009/2010 NY Feedlot and Carcass Value Discovery Program – Harvest Report

	CONVENTIONAL						NATURAL[a]					
	STEERS - 39 head			HEIFERS - 13 head			STEERS - 52 head			HEIFERS - 20 head		
Item	Average	Min.	Max.	Average	Min.	Max.	Average	Min.	Max.	Average	Min.	Max.
In wt, lb	642	459	910	600	366	779	571	280	915	549	371	684
End wt, lb	1176	943	1483	1029	897	1235	1066	326	1355	1026	900	1229
Days on feed	167	114	177	166	124	177	174	12	234	188	150	234
ADG, lb	3.2	2.3	4.3	2.6	1.7	3.8	2.8	0.2	4.4	2.6	2.1	3.2
Feed efficiency	7.1	6.4	8.7	7.5	6.5	8.7	7.4	5.8	8.7	7.4	6.9	7.8
HCW, lb	731	550	860	672	547	796	672	556	802	629	558	733
Back fat, in.	0.49	0.10	1.00	0.54	0.30	0.90	0.50	0.28	0.90	0.50	0.28	0.80
Ribeye area, in^2	12.1	9.0	14.4	12.3	9.3	15.0	12.6	10.5	17.0	11.8	9.7	15.3
Yield grade	3.3	1.2	5.2	3.1	1.9	4.8	2.7	1.5	4.0	2.8	1.7	4.2
FCOG[b], $/lb	0.41	0.37	0.50	0.47	0.41	0.55	0.52	0.34	2.07	0.52	0.48	0.55
Yardage, $/hd	67	46	71	66	50	71	69	5	94	75	60	94
V&M, $/hd	18	1	26	18	13	24	13	3	35	17	13	20
TCOG[c], $/lb	0.66	0.56	0.85	0.79	0.65	0.99	0.71	0.43	0.88	0.76	0.66	0.88
Price, $/lb	1.57	1.38	1.67	1.50	1.31	1.59	1.69	1.45	1.77	1.72	1.44	1.81
RetCC[d], $/hd	802	381	953	680	369	897	683	-329	1008	720	549	867
Feeder value[e], $/lb	1.27	0.77	1.95	1.14	0.77	1.84	1.24	-0.31	1.70	1.31	1.04	1.49
P/L, $/hd	204	-121	421	153	-86	389	211	116	352	219	59	293

[a]Natural cattle are not fed antibiotics or treated with growth promoting hormones.
[b]Feed cost of gain-cost of feed divided by the pounds of gain
[c]Total cost of gain-includes feed, yardage, vet and medicine, marketing
[d]Return to cow/calf operation-Receipts minus total expenses; essentially the amount of money available to keep a cow for a year.
[e]Feeder value is the amount a that could be paid for this calf and still break-even in the feedlot.

As you look over the data I'm sure that there are other points that stand out. Feel free to share them. If you would like information on how to participate in this program, contact Mike Baker, 607-255-5923, mjb28@cornell.edu, or go to http://www.ansci.cornell.edu/beef.

6. CATTLE SENSE: ANALYZING [NUTRIENT] ANALYSES

A symposium on forage analysis was held at the recent Joint Annual Meeting of the American Society of Animal Science, the American Dairy Science Association, and the Canadian Society of Animal Science in Denver, Colorado. What follows is a summary of some useful new information on forage analysis: why we need to do it, how it is (and maybe ought to be) done, and how the results should and shouldn't be used.

WHY.

It is easy to see the value of accurate information in diet formulation. If the feed contains fewer nutrients than expected, animal needs are not met by the proposed ration; if a feedstuff is better quality than is assumed, excess nutrients will be paid for, fed, and probably excreted into the environment. Still, the temptation exists to save the time and cost involved in feed testing. A rather unique study done through Penn State reminds us that laboratory analysis is a good investment. Professional nutritionists in attendance at university conferences were asked to visually assess forage samples, and then their conclusions were compared to actual analyses. The concluding sentence of the report read in part "…nutritionists who routinely evaluate forage quality cannot adequately asses . . . without actual analysis." If that is the case for professionals who deal with a range of feeds on an ongoing basis, it is probably true for most of us.

WHAT.

When a lab report comes back, all the data on it looks equally precise and accurate -- typically out to a couple decimal places. But before that information is applied to the decision-making process, there needs to be an understanding of where each of those numbers came from.

Some analyses are very straightforward, determining and reporting the actual concentration of a measurable substance. This is the case for dry matter, fiber, and minerals. Crude protein is similar, as long as it is determined by wet chemistry. Nitrogen content can be readily determined by established methodologies, and then a CP value estimated by dividing that number by 16% (which is the average level of nitrogen in protein).

More recently, procedures have been developed to take NIR (near infrared spectroscopy) readings of forages, and use computerized models to relate that information to expected protein content. This method has the most value for "standard" feeds, like alfalfa, that were well represented when the underlying correlations between NIR and protein were quantified.

Energy values are a different story. Important concepts like how much digestible energy this feed will provide to animals (TDN or NDFD), or that would be available to use for maintenance (NEm) or growth (NEg), cannot be addressed by direct measurements. Instead, related values like fiber and protein content are plugged into equations to estimate energy concentration and digestibility. Separate formulas have been developed for several classes of forages, and it is up to the lab to know which calculations to use for a given sample. Fiber (NDF) digestibility values may be determined the same way, or by actually culturing samples in rumen fluid, and taking readings that indicate the rate and extent of feed degradation under those conditions.

The inherent challenges and limitations that this represents were the focus of a symposium at the animal science meetings, titled "Forage Digestibility Estimates: Obtaining and Applying Meaningful Values."One of the invited speakers, Eric Vanzant of the University of Kentucky, pointed out that "labs are not certified to generate TDN values." Because of the way these numbers are generated, there isn't a specific methodology recognized as the "right" way to do it. Vanzant, along with other scientists on the program, advised caution in strict comparisons between digestibility values that were determined by different laboratories.

HOW.

In relation to forage energy and digestibility values, the biggest question is probably how we appropriately use these numbers. Ralph Ward, Cumberland Valley Analytical Services, devoted much of his presentation (which can be viewed in full at www.foragelab.com) to this topic. Their lab received

almost 40,000 requests for NDF digestibility values in 2008, with the results being used several ways: as a measure of forage quality; in ranking inventoried forages for targeted feeding; to model digestibility rates; for calculating energy values; and, to evaluate plant varieties. While his professional interest is most concerned with improving and standardizing methods for generating digestibility values, from a producer perspective the most important issue he raised in his talk was accuracy. Because of the many complicating factors -- relating to samples, animals, diets, and procedures -- there isn't a clear point at which we can specifically say two samples have 'different' digestibilities.

Bill Weiss, Ohio State, echoed many of Ward's comments. He emphasized that digestibility values are best used as a means of comparing feeds, and that these comparisons are only valid within forage type, and when the analysis was done at the same lab. In his presentation, Weiss highlighted -- but didn't have the answer for -- the key practical question: how do we adapt these values, understanding their limitations, to diet formulation?

The final speaker was chosen by the planning committee to give some 'real life' input into that discussion. Tom Peters, a consultant with Corn Belt Livestock Services, works with both beef and dairy operations. Like others on the symposium program, he voiced a need for new and improved methods to evaluate fiber level and digestibility. He also highlighted some practical concerns: having analysis results in real time (i.e., before the feed has already been fed up), and knowing analysis is based on "real" samples (representative; properly handled). More importantly, perhaps, he suggested that in some diets particle size has more meaning than NDF or ADF in formulation and the prediction of dry matter intakes.

The conference and the forage digestibility symposium in particular, generated good discussion and in-depth thought about where the industry needs to go from here. But in the meantime, producers need to use the best information available to them, remaining aware of existing limitations (which can be minimized by using a single, reputable lab). Forage analysis remains an essential management tool for helping producers use feed resources efficiently.

Source: Dr. Cathy Bandyk

7. BQA UPDATE: "CARE AND HANDLING BEEF CATTLE".

The following is excerpted from the handbook entitled "*Guidelines for the Care and Handling of Beef Cattle*". To receive a copy, contact the NY Beef Quality Assurance program listed at the end of this article.

Producer Code of Cattle Care

Beef cattle producers take pride in their responsibility to provide proper care to cattle. The Code of Cattle Care below lists general recommendations for care and handling cattle:

- Provide necessary food, water and care to protect the health and well-being of animals.
- Provide disease prevention practices to protect herd health, including access to veterinary care.
- Provide facilities that allow safe, humane, and efficient movement and/or restraint of cattle.
- Use approved methods to euthanize terminally sick or injured livestock and dispose of them properly.
- Provide personnel/family with training and experience to properly handle and care for cattle.
- Make timely observations of cattle to ensure basic needs are being met.

- Provide transportation that avoids undue stress caused by overcrowding, excess time in transit or improper handling during loading and unloading.
- Keep updated on advancements and changes in the industry to make decisions based on sound production practices and consideration to animal well-being.
- Persons who willfully mistreat animals will not be tolerated.

General Feeding Guidelines

Nutrition requirements vary according to age, sex, weight, breed or biological type, weather, body condition and stage of production. Diets for all classes of beef cattle, grazing or feeding, should meet the recommendation of the National Research Council (NRC) and/or recommendations of a feed consultant.

Ruminants readily adapt to varying weather conditions. For this reason, they function well in outdoor environments. During periods of decreasing temperature, feeding plans should reflect increased energy needs.

- If the cowherd is wintered in drylot, it is desirable, but not always possible, to separate cows according to age, size and body condition to more precisely meet nutritional needs.
- Provide adequate feed. Avoid feed and water interruption longer than 24 hours. When changing rations, avoid abrupt changes in the diet to minimize digestive upsets.
- All feed ingredients should be of satisfactory quality to meet nutritional needs.
- Under certain circumstances (e.g., droughts, frosts, and floods), test feedstuffs or other dietary components to determine the presence of substances that can be detrimental to cattle well-being, such as nitrate, prussic acid, mycotoxins, etc.
- Producers should become familiar with potential micronutrient deficiencies or excesses in their respective areas and use appropriately formulated supplements.
- The USDA, FDA and EPA approve products for use in cattle. These products must be used in accordance with the approved product use guidelines.

Shelter and Housing

Cattle reside on pastures and ranges and in various types of feedlots. Genetic variation among cattle species, breeds and individuals makes it possible for them to thrive in a wide range of natural conditions and artificial environments. When behavioral and physiological characteristics of cattle are matched to local conditions, beef cattle thrive in virtually any environment in the United States without artificial shelter. Protection may be beneficial (especially for newborns) during adverse weather conditions. Housing facilities should be designed and constructed to promote the animals' comfort and to enhance their health.

- Cattle on pastures are stocked at various rates, depending mostly on forage production.
- Cows, calves, and bulls may be held in close confinement for short periods waiting for routine processing, veterinary care, weighing or transportation. Close confinement should be for the shortest period possible.
- Cattle in backgrounding facilities or feedyards must be offered adequate space for comfort, socialization and environmental management. The allotted space is dependent upon body weight, rainfall, evaporation rate, geographic region, and type of pen surface, pen slope and presence of mounds. Cattle spacing has an influence on manure moisture content and therefore on dust, runoff and mud conditions. Because of this, it is impossible to construct a precise set of recommendations that fit all recommendations.

- Pen maintenance, including manure harvesting, will help improve pen conditions.
- Mud is more of a problem in the winter with low evaporation rate or improper drainage conditions. Accumulation of mud on cattle should be monitored as a measure of pen condition and cattle care in relation to recent weather conditions.
- Floors in housing facilities should be properly drained.
- Floors of barns and handling alleys should provide traction to prevent injuries to animals and handlers.
- Handling alleys and housing pens must be free of sharp edges and protrusions to prevent injury to animals and handlers.
- Mechanical and electrical devices used in housing facilities must be safe.

BQA is a voluntary program focused on increasing the quality, taste and safety of beef. Certification demonstrates your commitment to the principles of BQA. To find out how you can participate, contact Mike Baker, Cornell Beef Extension Specialist, 607-255-5923, mjb28@cornell.edu or Carol Gillis, NY Beef Industry Council Executive Director, 800-292-6922, cgillis@nybeef.org.

8. VACCINATION PROTOCOL FOR WEANING CALVES

Effective	Vaccine Schedule
Best	a. Six weeks prior to weaning: initial vaccine. Use only vaccines approved safe for calves nursing pregnant cows. b. Three – four weeks prior to weaning administer vaccines requiring a booster.
2nd Best	a. Two - three weeks prior to weaning: initial vaccine. b. At weaning, administer vaccines requiring a booster.
3rd Best	a. At weaning or two weeks post-weaning: initial vaccine. b. Two – three weeks later, administer vaccines requiring a booster.
USELESS:	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 may result. Modified live vaccines including a BRSV fraction generally recommend a booster for BRSV.

"To ensure optimal health of your animal(s), there are multiple diseases that your bull(s) are to be vaccinated for. At a minimum, this will require four separate injections (plus one injection for Selenium), some of which will need to be boosted 2-4 weeks following the initial injection. **To design the best protocol for your farm consult your herd veterinarian**." Vaccine requirements:

(1) IBR, BVD, PI3, BRSV **(2) Mannheimia haemolytica** (formerly *Pasteurella haemolytica*)
(3) Haemophilus somnus **(4) Pasteurella multocida** **(5) Selenium**
(6) 7-way Clostridial

9. WANTED: QUALITY REPLACEMENT HEIFERS

If you would like to diversify market for your pregnant commercial or pure open and bred heifers, consider the **Cornell Beef Replacement Sale**. This sale was started to add value to heifers that graduated from the Empire Heifer Development Program. It is now being expanded to include similarly developed farm raised heifers.

The sale is facilitated by students enrolled in Cornell University **Beef Cattle Merchandizing** class. Get the best bang from your marketing dollar by enlisting the enthusiasm of 35 students to sell your quality replacement heifers.

There are **requirements** to assure the buyer that the risk of calving difficulty has been minimized and that performance has been optimized. Requirements include being sired by a registered beef bull, a body condition score $\geq$ 5.0, negative test for BVD, brucellosis and TB and properly vaccinated for BVD, PI3, BRSV and IBR. Bred heifers are to be veterinarian checked pregnant to a known calving ease EPD sire.

Ultrasound data will be collected on heifers while at the Cornell Beef Teaching and Research Center. **Sale date**: Saturday, October 30, 2010. Cornell Beef Teaching and Research Center, Dryden, NY.

For more information: Mike Baker, Cornell Beef Extension Specialist, mjb28@cornell.edu, 607-255-5923

Cornell Replacement Heifer Sale

October 30, 2010

Cornell Beef Teaching and Research Center

Project of

AS 4700 "Beef Cattle Merchandizing"

Cornell University Department of Animal Science

10. FEEDER'S CORNER

a) *Predicting red meat yields in carcasses from beef-type and calf-fed Holstein steers using the United States Department of Agriculture calculated yield grade*

USDA Yield grade is used to predict the amount of boneless, closely trimmed retail cuts from the high-value parts of the carcass. Researchers were interested in determining if USDA YG could distinguish red meat yield between beef type and calf fed Holstein carcasses. Over 800 beef type carcasses and 235 calf fed Holstein carcasses were fabricated into to subprimal cuts and trim. Statistical analysis revealed that USDA YG was a poor estimator of total red meat yield in beef type carcasses, explaining less than 40% of the variation. Furthermore there was no relationship between USDA YG and total red meat yield of calf fed Holstein carcasses, suggesting that the USDA yield grade is not a valid estimate of calf-fed Holstein red meat yield. (Lawrence et al., 2010. J. Anim. Sci.)

b) *Temperament traits of beef calves measured under field conditions and their relationships to performance*

Temperament of beef cattle can be measured on farm using a chute score and an exit speed. Chute score involves rating an animal's behavior in a cattle handling chute. Temperament is scored numerically from 1-6, with 1 being docile and 6 being aggressive. Exit speed is measured as the speed at which an animal exits the chute and can be measured with a stop watch as the time it takes to reach a given point past the chute. Researchers in Germany were interested in comparing the two forms of temperament scoring and the relationship to average daily gain in German Angus, Hereford, Limousin and Charolais and German Simmental cattle. Breed was a significant source of variation in both score types. Charolais and Simmental had the highest scores while Hereford and Angus had the lowest. Both score types were correlated with ADG; cattle with more favorable temperament scores posted higher ADG than those with unfavorable temperaments. The authors concluded that on-farm evaluation of beef cattle temperament is possible, either using the chute test or the flight-speed test. Genetic selection seems to be promising to improve temperament traits of beef cattle without decreasing production traits like ADG of the calves. (Hoppe, et al., 2010. J. Anim. Sci.).

11. 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) 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. This program provides important data on the productivity of your cows based on the performance of their calves. Contact your local Cooperative Extension Agent, or call 607-255-5923.
   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_3, BRSV, Pasteurella, Mannaheim<u>a,</u> Clostridia spp., and <u>Haemophilus</u> <u>somnus</u>. If using a modified live vaccine, this must be done after calves are weaned. Killed vaccine products can be used on nursing calves.
   f) Treat calves for worms and grubs and supplement with Selenium.

2. Pregnancy test and cull all open cows.
3. Cull problem cows and marginal producers. Production data is easily obtained using CHAPS.
4. 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.
5. Consider taking soil samples and top dressing fields requiring lime, phosphorous and/or potash.