Ontario

OMAF Virtual Beef

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Welcome to the first issue of the *OMAF Virtual Beef* newsletter. This newsletter is a means to extend research findings and management information to Ontario's beef producers. We hope you find the articles of value to your operation and that you will look forward to future issues. If you have any comments or suggestions please contact the editor (page 2). Watch for the next issue in late January!

Inside This Issue

Are You a High Cost or Low Cost Producer?

Beef producers in Ontario will soon have the ability to answer this question by comparing their herd's production and financial records against the low cost, average cost and high cost profiles from a set of benchmark herds.

Program staff from the Ontario Ministry of Agriculture and Food (OMAF) with input from the Ontario Cattlemen's Association (OCA) and Beef Improvement Ontario (BIO) are implementing a program to produce benchmark information that individual producers can utilize to compare how their herd is performing against other herds in the province. The goal of the benchmark program is to record, analyze and summarize financial and production information from 50 commercial beef herds in the province.

Cost of production information is critical to ensure the economic viability of the Ontario beef industry. This project will provide producers with a method to measure how their herd is performing and to make informed decisions to ensure their profitability in the beef industry.

> "Because profit margins are getting smaller with each cattle cycle, knowing your cost of production is critical."
> Harlan Hughes

The key to the project is to get producers to calculate their Unit Cost of Producing (UCOP) a hundredweight of calf. This is found by dividing the herd's total cost of production by the total pounds of calf produced. UCOP integrates herd performance, land management, financial management and animal health into one indicator. Research has now shown that UCOP is the single most important management factor to determine profits in a beef cow herd.

"Because profit margins are getting smaller with each cattle cycle, knowing your cost of production is critical," said Harlan Hughes, livestock economist. "It is getting harder and harder for today's managers to make a profit, but knowing your cost of production enhances your odds of doing so."

OMAF staff are in the process of identifying herds that wish to participate in a benchmark study. Participants will be required to keep accurate records of production and financial data. In return they will receive a record-keeping system, management tools (software programs, worksheets), assistance in recording and reporting the information, a detailed analysis and a confidential report of their individual herd performance in relation to the rest of the benchmark herds.

If you wish to participate or want to learn more, please contact:
Joanne Handley, 519-826-3323, joanne.handley@omaf.gov.on.ca
Nancy Noecker, 613-258-8476, nancy.noecker@omaf.gov.on.ca

Electric Fence — The Foundation of a Workable Grazing System

Electric fence simplifies the management of an effective and productive grazing system. To be effective your grazing system relies on you controlling where the livestock will be, not the livestock determining where they will be grazing. Electric fence is easy to erect and very effective at controlling livestock. There are a number of important principals that will make your electric fence effective in managing livestock.

Electric fence provides a psychological barrier to the animals. They need to know that it is there and that it hurts. The first step is to train the livestock to the electric fence. This is most effectively done by putting the animals in a relatively small area with electric fence on the inside of a barrier type fence such as a board or page wire fence. Animals in close proximity to an electric fence that has a good "bite" will quickly learn to respect the electrified wire. After a couple of days in this environment, most, if not all, the animals will realize that touching the wire is not a pleasant experience.

To provide an effective bite the fence must be properly grounded. The shock from the fence is actually the completion of an electrical circuit running from the power unit through the wire, through the animal into the ground and back to the ground rod of the power unit. If the power unit does not have proper grounding this circuit will not be completed. If soil conditions are very dry there is also the risk that the circuit will not be completed. The fencer unit should have three ground rods at least six to eight feet long and made of galvanized steel. These ground rods need to be in moist soil and located at least ten feet apart. The ground wire from the charger unit should be attached with good clamps to make a tight connection.

If dry soils are a potential problem, consider running at least one ground wire in the fence so that when the animal touches the two wires (live and ground) the circuit is completed and a shock is received.

Avoid electrical shorts along the fence that will reduce the charge. Shorts can be due to a number of different things: poor insulators that don't give full electrical protection, grass or branches on the live wires, or poor connections at any join in the wire.

Electric fence is a psychological barrier so the wire does not need to be tight as a fiddle string. Barrier type fences rely on the physical barrier of the fence to stop the animals. Electric fence relies on the mental aspect of "don't go there". If the animal does try to challenge the fence it is better to have some give in the wire that allows the animal to get through without breaking the wire. Repair will be much easier. One or two wires won't provide enough physical barrier in any situation.

Keeping your electric fence in good repair and animals trained to respect its nasty bite will make pasture management much easier and effective. Livestock trained to electric fence can be rotationally grazed with a single hot wire to divide paddocks, and will respect temporary fences that are easy and quick to build. An easily managed paddock system will make rotational grazing an easy management tool to increase the productivity of your pastureland.

For more information, contact Jack Kyle, 705-324-5855, jack.kyle@omaf.gov.on.ca

For more information on pasturing, see our web site at: http://www.gov.on.ca/OMAFRA/english/crops/field/forages.html

Editor:
Joanne Handley
Ministry of Agriculture and Food
1 Stone Road West
Guelph, Ontario
N1G 4Y2
Phone: 519-826-3323
Fax: 519-826-3254
Email: joanne.handley@omaf.gov.on.ca

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OMAF Virtual Beef is published in electronic format and is available online at http://www.gov.on.ca/OMAF/english/newsletters.html or by contacting 1-877-424-1300.

Marketing Calves Enters a New Era

Producers have a better opportunity to be rewarded for producing reputation calves. Source Qualified Ontario Calves (SQOC) identifies calves with superior genetics that have followed a standard health protocol.

Beef Improvement Ontario (BIO) has initiated the program with input from industry representatives. Calves from participating herds will be identified with orange ear tags, which include National Identification numbers.

The genetic qualifications require that the calves must be sired by one of the following:

1. BIO evaluated bull with post weaning gain in the top 75% of the respective breed.
2. AI sire with genetic evaluations for growth and carcass traits
3. Sire with above average yearling weight expected progeny difference (EPD) from a breed association

The following standard health protocols are followed:

- Castration and dehorning completed at least 6 weeks prior to sale (guaranteed).
- Vaccination for IBR, PI3, BVD and BRSV, with the final shot at least 2 weeks prior to sale.
- Vaccination for *Pasturella* at least 2 weeks prior to sale.
- Vaccination of the cow herd for BVD annually.
- Introduction of calves to dry feed (grain or silage) at least 6 weeks prior to sale.

Producers are encouraged to check with their herd veterinarian for recommendations on vaccines, timing of vaccination and other health protocols for their herd.

Potential buyers will be able to sort groups by sex, weight, breed, etc. on the cattle-log at:

www.SQOC.com

In the event that a buyer wants additional information on an individual calf, that information will be available on the cattle-log by means of the CCIA number.

For more information on this project, visit www.biobeef.com or call 1-800-373-2253.

Joanne Handley, 519-826-3323
Joanne.handley@omaf.gov.on.ca

Check the Penicillin Label

Check the label for three good reasons: to locate the dosage rate, the withdrawal time and the method of injection. Some penicillin brands no longer print the dosage rate on the bottle. The package insert, that folded piece of paper piled at the back of the medicine fridge, contains vital information and for some brands is the only place the dosage rates are listed. Dosage rates and withdrawal times for your favourite penicillin have been changing over the last few years. Some penicillin labels give you a choice to administer their product subcutaneously or intramuscularly. Other brands directions are registered only for either subcutaneous injection or intramuscular injection. Check the label and package insert before purchasing penicillin to make sure you have all the facts you need.

Withdrawal times for penicillin G procaine, the kind you buy from a feedmill, range from 5 to 21 days before cattle may be sold for slaughter after the latest treatment. This year, one brand doubled the withdrawal time for their product from 5 days to 10 days for cattle. The bottle label still looks the same although the print containing the new withdrawal time is smaller. It is critical to always take the package insert that matches the brand of penicillin you purchase home with you. Read the package insert before using livestock medicine and avoid any drug residue concerns.

Craig Richardson, 613-258-8392, craig.richardson@omaf.gov.on.ca

Management Tips

Five for Fall!

Plan for Profit. Is Your Marketing Plan in Place?

- Calves weighed to calculate your pounds of product and profit? Use your sire and herd expected progeny differences (EPD's) to advertise the growth, marbling and yield potential of your calves.
- Calves certified for special sales? Vaccinated, Value-Added or Source Qualified Ontario Calves (SQOC)?
- Loading chutes and corrals in good repair **before** you start to process calves and cows?

Vet Visits?

- Pregnancy check the cows. Ship the open ones, but look at the market first. Do you have enough feed to carry them to mid-winter when prices for cull cows generally rise? Can you market the late-breds to fit another producers' calving cycle?
- Health Plan for Cows – in place and completed? Discuss with your Vet **if** this is the best time to vaccinate and apply parasite control or would it be more cost effective in the spring?
- Consider a spring vaccination program for the cows which is in demand by feedlots!

Fat Fall Feeding

- Dry cows will pack on the weight if you supply the groceries. It's cheaper and easier to put weight on in the fall and then let the cow use it during the winter and early lactation.
- Check the Body Condition Score (BCS). Pay special attention to bred and first calf heifers. Supplementing them, can be as easy as giving them the best pastures, or letting them lead graze in a field, followed by the mature cows (similar to creep grazing).

Ration Reasoning

- Test and inventory your feeds now! Dole out the poorer feeds in the fall and try to save the better forage for late gestation and lactation. Testing will let you balance the ration and perhaps cut back in some areas.
- Look for supplements and good buys. If you know what you need, you can be on the market early looking for supplements. Sometimes there are good buys at harvest.

Information Interpretation

- Analyse your records. Identify opportunities for improvement. Don't just file them.
- Make sure the bull and heifer calves you kept are moving you toward your goals. Is the cow herd living up to expectations — in both production and profit?
- Is keeping your own replacements working out? Or should you be considering a purchasing arrangement.
- Start shopping now for next year's herd sire. List your needs and check out the bull calves on test early — remember you sell his offspring at that age.

Nancy Noecker, 613-258-8476, nancy.noecker@omaf.gov.on.ca

Budgets

Take a close look at these sample budgets -- **DO YOU KNOW YOUR COST OF PRODUCTION (COP)?**

These one page budgets focus on the economics of feeding cattle and features such things as calculating the total cost of gain, feed efficiency and net return/animal. The budget programs (which can be downloaded from http://www.gov.on.ca/OMAFRA/english/busdev/downtown.htm#beefbud) can evaluate past performance as well as projecting ahead. It allows you to look at "what if" scenarios before you purchase cattle. This issue features a Finishing Scenario and a Backgrounding Scenario.

$$$ Ontario Feedlot Cost of Production Budget $$$
Finishing Scenario

Calf Information	
Sale Weight (lb.)	**1,290**
Purchase Weight (lb.)	**465**
Days on Feed	**305**
Death Loss %	**-**

	$/Head	**$/lb**
Sale Value	$ 1,303	
Purchase Value	$ 623	
Death Loss Value	$ -	
Margin	$ 680	$ 0.82

Expected Cost of Gain	
Feed ($/lb of gain)	$ 0.53
Health & Vet. Expenses ($/hd)	**$ 18**
Marketing/Trucking ($/hd)	**$ 27**
Yardage** ($/hd/day)	**$ 0.25**
Interest Rate %	**5.5**

Feed	$ 439	$ 0.53
Health & Vet. Expenses ($/hd)	$ 18	$ 0.02
Marketing/Trucking ($/hd)	$ 27	$ 0.03
Yardage	$ 76	$ 0.09
Interest	$ 44	$ 0.05
Expected Cost of Gain	$ 605	$ 0.73
Net Return	**$ 75**	$ 0.09

Expected Market Situation	
Sale Price ($/lb.)	**$ 1.01**
Purchase Price ($/lb.)	**$ 1.34**

Breakeven Sale Price	$ 1,228	$ 0.95
Breakeven Purchase Price	$ 698	$ 1.50

Total Gain (lbs.)	825

A.D.G. (lbs./day)	2.70

Feed Requirements	**$/tonne**
Hay	**$ 70**
Haylage	**$ -**
Corn Silage	**$ -**
Dry Corn	**$ 140**
H.M. Corn	**$ -**
Beef Supplement	**$ 360**
Salt & Mineral	**$ 480**
Corn Screenings	**$ -**
Other	**$ -**
Other	**$ -**
	$/acre
Pasture	**$ -**

Kgs. per Head/Day		**Percent DM**
3.2	$ 68	**90**
-	$ -	**45**
-	$ -	**35**
7.3	$ 312	**86**
-	$ -	**70**
0.5	$ 55	**90**
0.03	$ 4	**100**
-	$ -	**86**
-	$ -	
-	$ -	
n/a	**$ -**	n/a

Total Feed Cost	$ 439
Feed Cost per lb. of Gain	$ 0.53
Feed Conversion (lbs. - as fed basis)	8.99
Feed Conversion (lbs. - dry matter basis)	7.86

** Yardage is hydro, telephone, taxes & insurance, bedding, manure removal, housing, equipment repairs

This budget looks at the close out value of a particular group of steers. The bolded numbers are the actual costs for this particular pen of steers. These crossbred steers were purchased last December, fed to market weight and sold the last week of October, 2002. The ration listed is the **average** over 305 days. The steers were fed in a stepwise fashion, therefore more roughage was fed in the early stages and mainly corn was fed the last 100 days or so. The **NET RETURN** to the producer was **$75.00/head.**

$$$ Ontario Feedlot Cost of Production Budget $$$
Backgrounding Scenario

Calf Information	
Sale Weight (lb.)	**900**
Purchase Weight (lb.)	**550**
Days on Feed	**170**
Death Loss %	**-**

	$/Head	**$/lb**
Sale Value	$ 990	
Purchase Value	$ 660	
Death Loss Value	$ -	
Margin	$ 330	$ 0.94

Expected Cost of Gain	
Feed ($/lb. of gain)	$ 0.52
Health & Vet. Expenses ($/hd)	**$ 15**
Marketing/Trucking ($/hd)	**$ 25**
Yardage** ($/hd/day)	**$ 0.25**
Interest Rate %	**6.5**

Feed	$ 182	$ 0.52
Health & Vet. Expenses ($/hd)	$ 15	$ 0.04
Marketing/Trucking ($/hd)	$ 25	$ 0.07
Yardage	$ 43	$ 0.12
Interest	$ 25	$ 0.07
Expected Cost of Gain	$ 290	$ 0.83
Net Return	**$ 40**	$ 0.12

Expected Market Situation	
Sale Price ($/lb.)	**$ 1.10**
Purchase Price ($/lb.)	**$ 1.20**

Breakeven Sale Price	$ 950	$ 1.06
Breakeven Purchase Price	$ 700	$ 1.27

Total Gain (lbs.)	350

A.D.G. (lbs./day)	2.06

Feed Requirements	**$/tonne**
Hay	**$ 66**
Haylage	**$ -**
Corn Silage	**$ -**
Dry Corn	**$ 150**
H.M. Corn	**$ -**
Beef Supplement	**$ 400**
Salt & Mineral	**$ 480**
Corn Screenings	**$ -**
Other	**$ -**
Other	**$ -**
	$/acre
Pasture	**$ -**

Kgs. per Head/Day		**Percent DM**
4.5	$ 50	**90**
-	$ -	**45**
-	$ -	**35**
4.0	$ 102	**86**
-	$ -	**70**
0.4	$ 27	**90**
0.03	$ 2	**100**
-	$ -	**86**
-	$ -	
-	$ -	
n/a	**$ -**	n/a

Total Feed Cost	$ 182
Feed Cost per lb. of Gain	**$ 0.52**
Feed Conversion (lbs. - as fed basis)	9.56
Feed Conversion (lbs. - dry matter basis)	8.44

** Yardage is hydro, telephone, taxes & insurance, bedding, manure removal, housing, equipment repairs

This budget was used to determine the feasibility of purchasing crossbred heifer calves this fall, to background and sell in the spring of 2003. The bolded numbers are projected costs for an individual producer. This example projects a **Net Return** of **$40/Head** and **Feed Cost** of **$0.52/lb. of Gain.**

For more information or to determine your COP contact: Dennis Martin
Beef Feedlot Specialist
(519) 482-5976
dennis.martin@omaf.gov.on.ca

Sulfa Compound Residues in Slaughter Animals and Deadstock

What are Sulfa Compounds?

Sulfa compounds are antimicrobial agents used in the prevention and treatment of animal diseases. There are eight sulfa compound groups. Antimicrobial agents have been used for many years by the livestock industry and are currently available in many medication products. These products may be administered orally (drench or bolus), in feed or water, or by injection, and have a recommended label withdrawal period that will vary with different products, between 4 days and 30 days.

What are the Current Issues with Sulfa Compounds?

- A major renderer will no longer accept animal carcasses with sulfa compound residues.
- Producers sending such products to rendering may lose available deadstock collection services.
- Some sulfa compounds are very stable chemical agents that may be difficult to break down during the rendering process.
- Concerns have been raised over the use of antimicrobial agents that may contaminate meat and bone meal, potentially posing a public health risk.
- Export markets are limited when products contain sulfa compound residues.
- Good housekeeping and management skills are recommended to prevent cross-contamination.

Best Management Guidelines for Prevention

Do

- Read labels on feeds and veterinary drugs to see if they contain sulfa products. ***Be aware of what you are using.***
- Ask your veterinarian for ***alternatives*** to sulfa-based products ***where and when applicable***.
- Develop a protocol with your veterinarian when using sulfa-based products. ***When in doubt, ask.***
- **Consult with your veterinarian** on whether treatment is the best strategy. Determine if and when an animal is to be culled before you start treatment.
- Keep proper records and identify animals that may contain residues, to protect the food chain and the environment***. Consult with your deadstock collector.***
- Develop a separate handling protocol and disposal plan for dead animals that may contain sulfa compound residues and ensure all employees and family members are aware of the procedures to follow. ***Communication is key to prevention.***
- Improve your awareness. The Livestock Medicines Education Program (LMEP), Environmental Farm Plan (EFP), on-farm food safety training and species-specific medication lists provide valuable information. ***Knowledge is the key to residue prevention.***

Don't

- Never place market animals in pens where other animals have been housed and treated with sulfa compounds ***before facilities are thoroughly cleaned and dried***.
- **Do not ship animals prior to withdrawal time on label.**
- Never use a vehicle to transport market animals that has been used to transport animals containing sulfa products ***without first thoroughly cleaning and disinfecting the vehicle***.
- Never use equipment or utensils in the feeding or treatment of animals that have been previously used to administer sulfa products ***without first thoroughly cleaning and disinfecting***.
- Never administer ***any*** medication before reading the label.
- Never exceed recommended labeled dosage without first consulting your veterinarian as the ***withdrawal period may be extended***.

More information on deadstock, including a Sulfa Product List, can be found on the OMAF website: www.gov.on.ca/omaf/

Gary Koebel, 613-475-5884, gary.koebel@omaf.gov.on.ca

Cold Stress on Trucked Cattle

Cattle being transported in cold weather need to be protected from getting wet. During cold weather, cattle with a dry hair coat have the hair stand more erect to increase the insulation value of the hair. Cattle with an average hair coat start releasing energy from burning fat at around 0°Celsius (32°F). Cattle with a heavy winter coat need to start burning fat at –7°C (20°F). If the hair coat gets wet, the insulating factor drops and they start burning fat at 14°C (57°F). Hair coats matted down by manure or mud are also unable to retain body heat for the animal.

Cold stress on trucked cattle is greatly increased when the temperature is near freezing and either rain or freezing rain blows into the transport. The wet hair coat can no longer insulate the animal from the cold. Cattle in the back of a moving vehicle travelling 80 km/h on a day that the temperature is -1°C (30°F) are experiencing a wind chill factor that makes it feel like -23°C (-10°F). The cold effects are amplified when the hair coat is wet. Newly weaned calves, in particular, need to be protected from excess dampness and temperature fluctuations.

Warning signs of cold stress are:

- Consumption of bedding.
- Fluid frozen to the face or nostrils.
- Shivering.

The following are trucking precautions in cold weather.

- Supply lots of bedding to help keep cattle warm and dry.
- Remove wet bedding after each trip.
- Do not overcrowd cattle. Allow space for them to reposition themselves to avoid frostbite on individuals along the outside of the vehicle.
- Close nose vents and cover bottom ventilation slats to protect cattle from road spray.

Trucking cattle on cold, dry days lowers the chance of losses due to their hair coat retaining the ability to insulate them against outside temperatures. If you are planning to truck cattle during cold wet weather keep in mind how wet the cattle may become in transit and take the required precautions.

Craig Richardson, 613-258-8298
craig.richardson@omaf.gov.on.ca