Ontario

OMAFRA *Virtual Beef*

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Get Those Unwanted Medicines And Sharps Off The Farm Safely!

Kim Klotins, DVM, DVSc
OMAFRA Antimicrobial Resistance Specialist

Chances are you've used **vaccines** and **medicines** to prevent or treat disease in your cattle. All the medical supplies you use, including **sharps** such as injection needles and scalpels, eventually become **medical waste**. How can you store this waste safely and how can you get rid of it?

Safe storage means medical waste is put in containers that are leak-proof, puncture-proof, unbreakable, with a re-sealable and locking lid, and a carrying handle. Seems like a tall order but commercial containers are available, and in a pinch, you can use paint cans with lids, juice cans if holes are plugged and taped, intact picnic coolers with the valve plugged and taped, or large plastic shipping barrels with locking lids such as those used for pickles and other products. For producers thinking of taking the Quality Starts Here™ verified beef program, there is a new 50-50 cost share federal funding support for equipment, and disposal containers for empty medication bottles are on the list.

Safe storage also means that these containers are **locked away** so that this waste is not reused by mistake and children don't have access. In some regions you can put this waste out for collection or transport it to a landfill, but in others it is not eligible for pickup and will be refused if delivered to the waste disposal site. This waste is not recyclable.

……………..continued on next page

Virtual Beef is a technology transfer vehicle of the Ontario Ministry of Agriculture, Food & Rural Affairs.

This publication is available in electronic format at http://omafra.gov.on.ca/english/livestock/beef/news.html

Single paper copies may be obtained by calling 1-877-424-1300

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Virtual Beef is compiled by the OMAFRA Beef Team and edited by Tom Hamilton, Beef Program Lead, Production Systems

Your veterinarian may take back your unwanted medicines and sharps. However, your vet requires a certificate from the Ministry of the Environment to do so. Not all clinics have one. Another issue identified by both veterinarians and producers is **biosecurity**. If you want to take it back, a protocol that will minimize the risk of disease spread via these wastes should be in place and followed.

A direct disposal option does exist in some areas. There are sterilization and incineration companies that can take care of this medical waste. The biosecurity risk is minimized because the items are sterilized or incinerated. The amount of leftover waste going to landfills is cut by over 50%. There is a cost associated with this service that can be claimed as a business expense. This service may be especially handy for those times when large amounts of waste are generated, for example, when calves are processed or pens/herds are on treatment programs for respiratory disease.

For more information about safe storage and responsible disposal of medical waste see our on-line Factsheets:

Safe On-Farm Storage of Unwanted Medicines and Sharps

http://www.omafra.gov.on.ca/english/livestock/animalcare/amr/facts/05-053.htm

and

Responsible Disposal of Unwanted Medicines and Sharps

http://www.omafra.gov.on.ca/english/livestock/animalcare/amr/facts/05-051.htm

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What Makes A Successful Grazing Program?

Jack Kyle,
OMAFRA Grazing Specialist, Lindsay

Promoting good grass growth is the most important part of a successful grazing program. There are many other components to a successful grazing program but **improved grass growth** is critical to get the most livestock production from the pasture.

If you manage the grass on your farm to get maximum growth and then optimize the harvest of this growth, you will achieve excellent results. Productive pastures can produce **500 to 600 pounds** of **gain per acre.**

With any annual crop we take great steps to get optimum growth and plant development. We select varieties, fertilize to crop needs and control pests. Harvest does not happen until the crop has reached the ideal harvest stage.

Let's think about these same things, but from a grazing or pasture perspective …

How **species** are **managed** is as important as what species are present in the pasture. Species differ somewhat in their growth habits, but all species can provide both good quality and quantity of forage. Match your pasture management to the species present. **Grasses** should be grazed when the **third leaf** is fully **emerged**. This will be a different calendar date for orchard grass (early) versus brome grasses (late). Clovers and alfalfa are much earlier to break winter dormancy and will be ready to graze shortly after the grasses. Trefoil is late to break winter dormancy and consequently is not going to provide pasture until late in the spring.

Fertility is important for good plant growth. Grasses will respond to nitrogen applications in late spring. Livestock manure produced by the grazing animals assists in providing fertility to the pastures, and if evenly distributed across the pastures, this manure will enhance the forage growth.

The optimum harvest time for grasses is after the third leaf has emerged and before the seed head has emerged. Harvesting at this time allows for the plant to accumulate significant livestock feed and **replenish root** growth and **reserves**. Once the grass has been harvested (grazed), then it is time to let it regrow until it has reached the 3rd leaf stage again. This regrowth will take about 25 – 40+ days depending on the season. The regrowth will be faster in the spring with cool temperatures and adequate moisture, and slower in the heat of the summer with hot temperatures and less moisture.

Setting up a rotational grazing system with fencing allows you to manage the grass for optimum production of forage. Consequently, there will be significantly more forage for your livestock. When livestock are being moved to fresh forage on a regular 1 to 5 day basis, a single or double strand electric fence will be adequate to control your cattle. **Fencing** allows you to control your livestock and **prevent re-grazing** of areas. It is this re-grazing that limits the forage production. A well managed grazing system will provide productive pastures on your farm.

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Breed In A Day!
And shorten your calving season

Barry Potter,
Livestock Specialist, OMAFRA

Do you know what day you will be breeding your cows this year? With the **fixed-time insemination** protocol developed by the University of Guelph at the New Liskeard Agricultural Research Station, you can plan your **breeding day** today. A recent farm trial bears out the validity of the research results.

Use of artificial insemination has been touted as a method of improving the genetics in your herd at a lower cost than the cost of buying a high quality bull. But most producers find the job of heat detection time consuming. The commitment may be there, but time pressures generally reduce the impact of artificial insemination in herds across Ontario.

By using the CIDR™ (Controlled Intravaginal Drug Release) approach producers can maximize artificial insemination on a large scale. Using the **progesterone releasing CIDRs**, with additional hormones, allows producers to plan their breeding season. Each day of the 4 step program can be booked in advance if taking time off work. Extra help can also be hired in advance for rounding up the cows.

What are realistic expectations with a fixed-time A.I. program? Many producers are surprised to hear that a highly effective **natural breeding** program only achieves about a **70% pregnancy** rate in the first cycle of the breeding season. Some producers who do an excellent job of heat detection, and breed on standing heat, achieve a higher percent than this with artificial breeding. But using a **fixed-time** insemination program can still allow you to obtain pregnancy rates **similar to** using walking **bulls**.

Five years of data with fixed-time insemination in a farm trial situation shows a range of 43 to 80 % pregnancy each year. Over five years the **average pregnancy rate** for fixed time insemination was **66%**. This compares favourably with research at the New Liskeard Agricultural Research Station, (NLARS) which consistently has pregnancy rates in the high 60's to low 70's on a fixed-time protocol.

Another benefit of synchronizing cows is shortening the overall calving period. Cows which are synchronized but do not become pregnant in the first cycle will cycle usually have cycled again by day 25 of the breeding season, which will shorten the calving season.

Some producers worry that if they synchronize their cows to be bred on one day, all the calves will be born on one day. What actually happens is a bell curve effect, where calving generally commences a week to 10 days earlier than the set calving date, peaks around the "due date", and continues to a week to ten days after the scheduled date. There will be more **concentrated calving,** and producers need to be prepared to manage more calves in a shorter period of time. But bunching the calves allows producers to again focus their labour and management skills over a shorter period of time.

Another benefit of bunched calving is a more uniform calf crop at marketing. This should result in higher prices for calves. A recent study showed that at certain sale facilities, for each one hd increase in lot size, the price per lb increased by one cent.

Table 1: A Fixed -Time Insemination Protocol. Consult with your veterinarian

Day 0	Day 7	Day 8	Day 9
Insert CIDR™ + inject Estradiol	Remove CIDR™ + Inject Prostaglandin	Inject Estradiol	Inseminate cows 52 -54 hours after CIDR™ removal

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Typical Beef Feedlot Diets

Dennis Martin, Beef Feedlot Specialist,
OMAFRA, Clinton

High energy feed such as grain corn is most often used in **finishing diets**. However, other feeds can also be used, generally in combination with corn or corn products. The key is to ensure the **ration is balanced** to achieve your target rate of gain. Many feedlot operators aim for a gain of 100 lbs./month, or an average daily gain of 3.0 lbs. or better per animal. Listed below are a few sample feedlot rations to review.

Assumptions

- Backgrounding yearling diets (Rations #1 and #2)– average daily gain (ADG) approximately 2.5 lbs/day
- Finishing diets (Rations #3 to #8) – average daily gain (ADG) approximately 3.0 lbs/day
- Dry matter (DM) intake – approximately 2% of body weight for finishing diets

Ration #1 – Backgrounding Diet (900 lb. yearlings)

	Kgs. Fed/Day (As Fed basis)	**Lbs. Fed/Day (As Fed basis)**
Corn Silage	15.0	33.0
HM Corn + Cob Meal	3.5	7.7
Corn Gluten	2.0	4.4
Mineral/Salt - Premix	0.12	0.26

Ration #2 – Backgrounding Diet (l,000 lb. yearlings)

	Kgs. Fed/Day (As Fed basis)	**Lbs. Fed/Day (As Fed basis)**
Hay	1.0	2.2
Corn Silage	14.0	30.0
Dry Corn	5.0	11.0
Supplement/Premix	0.6	1.3
Plus Salt		

Ration #3 – Finishing Diet (1,250 Steers)

	Kgs. Fed/Day (As Fed basis)	**Lbs. Fed/Day (As Fed basis)**
Hay	1.0	2.2
Dry Corn	7.0	15.4
Barley	4.0	8.8
Wheat	1.0	2.2
Supplement/Premix	0.7	1.5
Plus Salt		

Ration #4 – Finishing Diet (1,300 Heifers)

	Kgs. Fed/Day (As Fed basis)	Lbs. Fed/Day (As Fed basis)
Corn Silage	8.0	17.6
Dry Corn	3.0	6.6
HM Corn & Cob	8.0	17.6
Corn Gluten	2.0	4.4
Plus Salt and Mineral		

Ration #5 – Finishing Diet (1,200 Steers/Heifers)

	Kgs. Fed/Day (As Fed basis)	Lbs. Fed/Day (As Fed basis)
Dry Corn	6.0	13.2
HM Corn	6.0	13.2
Corn Silage	4.5	9.9
Supplement	0.7	1.5
Plus Salt		

Ration #6 – Finishing Diet (1,100 Steers)

	Kgs. Fed/Day (As Fed basis)	Lbs. Fed/Day (As Fed basis)
Dry Corn	8.0	17.6
Barley	2.0	4.4
Alfalfa Silage	2.0	4.4
Corn Silage	2.0	4.4
Soybean Meal	0.5	1.1
Limestone	0.07	0.16
TM Salt	0.04	0.09

Ration #7 – Finishing Diet (Average Weight – 1,300 lbs.)

	Kgs. Fed/Day (As Fed basis)	Lbs. Fed/Day (As Fed basis)
HM Corn & Cob Meal	6.8	15.0
Dry Corn	5.0	11.0
Barley	2.3	5.0
Hay	0.9	2.0
Supplement	0.7	1.5
Plus Salt		

Ration #8 – Finishing Diet (1,250 Steers)

	Kgs. Fed/Day (As Fed basis)	Lbs. Fed/Day (As Fed basis)
Dry Corn	11.4	25.0
Hay	1.4	3.0
Supplement/Premix	0.7	1.5

Cost of Ration #8 (High Corn Diet) Calculated at Three Different Corn Prices

Assumptions

- ADG – 3.0 lbs/day
- Supplement - $350/t
- Dry Hay - $100/t

Table 1. Effect of Corn Price On Cost of Gain

Corn Price	Total Daily Feed Cost	Total Feed Cost/lb. of Gain
$100/t	$1.50	50¢
$120/t	$1.74	58¢
$140/t	$1.98	66¢

As indicated in Table #1, the **price of corn** can have a huge impact on **cost of gain**. The other important factor that can influence the cost of gain is performance of cattle. Average daily gain (ADG) and feed efficiency or feed conversion are both good measures of performance.

Overall, the most important factors affecting performance are:

1. **The Ration** – quality of feed and balanced for essential nutrients.
2. **Environmental** – air quality, animal comfort and bunk space.
3. **Quality of Cattle** – genetics, body condition and health.

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Profitable Pastures
Grazing – What Makes It Work

March 7, 2006 Drumbo
March 8, 2006 Elmwood
March 9, 2006 Douro

Organized by the Ontario Forage Council.

Featuring….

Jim Gerrish, Forage Researcher
… What's Really Important in Grazing
… Getting the Most Out Of Your Pastures

Jack Kyle, Grazier Specialist, OMAFRA
… Grazing Opportunities for Annual Crops in Ontario

Registration and Trade Show	9:00 a.m.
Presentations	9:45 a.m. – 3:00 p.m.

Conference Cost $30.00

Registration Deadline March 3rd

Phone 1-877-892-8663 (Visa or Mastercard)

For more information contact the Ontario Forage Council at 1-877-892-8663 or email info@ontarioforagecouncil.com

Eastern Ontario Beef Day

Saturday, March 11, 2006

Winchester Arena

Organized by County Cattlemen's Associations in eight eastern Ontario counties (Leeds to Quebec border), assisted by OMAFRA.

Speakers…

Stan Eby, President of the Canadian Cattlemen's Association.
…*Running a National Commodity Organization in difficult times*.

Dr. D. H. "Denny" Crews, Ag Canada Research Scientist, Lethbridge Research Station
…*Genetic ties between feedlot performance and the cow herd*.

Gib Drury, President, Quebec Farmers' Association
…*Quebec Income Stabilization Program*.

Check-in and coffee:	9:00 a.m.
Program:	10:00 a.m. to 3:00 p.m.

Registration fee: $15.00
Fee includes **lunch** for those that **register and pay in advance** to their local County Cattlemen's Association.

Registration at the door is available, but will not include lunch.

Companies and organizations will have on-site displays throughout the day

Cattlemen not knowing a local county contact may call Ron Wilson at (613) 543-2784 or by E-mail at r.d.wilson@sympatico.ca

Managing Disease
- Response To The 2005 Outbreak Simulation

April 6, 2006
Bingemans
Kitchener, Ontario

Come and hear how commodity groups and governments responded to this simulated disease outbreak, then hear industry experts from the U.K., U.S., and Canada discuss euthanasia and carcass disposal during a catastrophic event.

Speakers confirmed at this time…

Gordon Hickman, Head, U.K. State Veterinary Service Contingency Planning and Disposals Division

Nathaniel L, Tabiante, Associate Professor and Extension Specialist, Poultry Health, University of Maryland

George (Bud) Malone, Extension Poultry Specialist/Associate Scientist, University of Massachusetts.

Pre-registration by March 27	$30.00
Registration at the door	$40.00

To register call 519-837-0284 or email mwhite@poultryindustrycouncil.ca

Functional Foods –
Emerging Markets for Livestock
Conference and Workshops

June 27th and 28th, 2006
Stratford, ON

Conference Objectives

To build awareness of functional foods as an emerging niche market, to report on world-wide livestock research in this field, and to develop potential alliances in the areas of marketing and research.

Target Audience

Two hundred innovative primary producers, processors, suppliers, and media from the agri-food industry.

Conference Program

The first day (below) will feature national caliber speakers in the areas of research, consumer trends, nutrition, and product development using a case study of an existing success story. The second day will offer breakout (workshop) sessions specific to a commodity (ruminant meats, dairy, pork, and poultry). These sessions will feature agricultural scientists developing livestock-based functional food technologies. The conference will conclude at lunchtime on the second day.

Time	Agenda Topic	Tentative Speaker
10:00 - 10:10	Welcome and Introduction	
10:10 - 10:50	The Nutritional Importance of Foods of Animal Origin	Helen Bishop MacDonald
10:50 - 11:30	Preventative Health Measures, Consumer Trends	TBD
11:30 - 12:10	Functional Components of Animal Origin for Use in Foods	Dr. Harvey Anderson University of Toronto
12:10 – 1:30	Lunch	
1:30 - 2:10	Fatty Acid Modification for Better Health	Dr. Bruce Holub University of Guelph
2:10 - 2:50	Case Study – A Success Story	Margaret Hudson – Burnbrae Eggs
2:50 - 3:10	Break	
3:10 - 3:50	Academic Panel	Steve Leeson Kees de Lange John Kelly
3:50 - 4:30	Marketing Functional Foods - The Retail Perspective	TBD
Dinner Hour	Functional Foods - Putting It All Together	Gord Surgeoner