

OMAF *Virtual Beef*

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Bobby Seeber, Senior Policy Ad-

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BSE and Trade

Where are we one year later ?



It has been a year since bovine spongiform encephalopathy (BSE) was positively identified in a cow in Alberta on May 20th, 2003. Immediately following the announcement by the Canadian Food Inspection Agency (CFIA) at that time, over thirty countries closed their borders to all Canadian ruminants and ruminant products. This included all cattle, sheep, goats, deer, elk, bison, and all meat from those species.

The response by Canada's trading partners was not remarkable. All countries trading in cattle and beef have long-standing BSE import protocols that are immediately implemented upon the discovery of BSE in a foreign jurisdiction. It is one of the criteria for maintaining or achieving a "BSE-free" designation according to international standard (as set by the Office International des Epizootes, or OIE)..... *continued on page10*

VB note: Bobby is an internationally respected authority on agricultural trade and the recipient of OMAF's BRAVO Award for Excellence in 2003.

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Never Cry Wolf – Protect your herd from predators!

Barry Potter, Livestock Specialist

In Ontario, many livestock operations include extensive pastures which feature ravines, scrub land and woodlots. These situations are likely to be attractive to predators such as wolves, coyotes and bears.

Close The Door To Temptation

- Bury deadstock and afterbirth under two feet of soil or in a compost bin. Make sure the compost heap is secure.
- If available, use the services of a rendering facility which will pick up deadstock at your farm

Minimize Risk With Management

- Use easy calving bulls. Difficult calvings weaken cows, and big newborns can be slower getting going, increasing predation risk.
- Take advantage of increased calf vigour and cow maternality through planned cross-breeding
- Check cows regularly. Intervene when necessary.
- Have a defined breeding season. Calving seasons that drag on often see cow checks become less regular, leaving tail-enders at higher risk.
- Keep pregnant cows and young calves out of bush pastures. Bush = cover for predators
- Maintain fences. This keeps young calves from wandering outside of the calving area
- Use high-powered electric fences to discourage predators from entering the pasture.
- Protect your livestock with animal guardians. Llamas, donkeys, and guard dogs can effectively discourage predators.
- Select cows with high “mothering ability”. They will defend their calves against attack

Know Thine Enemy

Wolves primarily attack young calves, although they can prey on cattle. In a study of wolf kills conducted in Alberta (from 1980-1987), calves made up about 70 % of the cattle identified as being killed by wolves. Wolf kills occur most often from July to September, when calves are in the 4 to 7 month old range. The young wolf pups are being trained to hunt at this time, and domestic livestock represent ideal teaching aids.



Wolf attacks focus on the hindquarters, including the tail, thigh, and rectal areas. They may also attack the face, front legs, flank and upper shoulders.

Coyotes tend to attack young calves. The Alberta study showed that calves one month old or less make up about 80 % of all cattle kills by coyotes. One third of the calves were less than one day old when killed. Coyotes attack the flank of the newborn calf. They rip open the abdomen and devour internal organs. Coyotes may also leave bite marks on the top of the calf's back.

Black bears tend to select calves under six months to kill. They will also kill yearlings and adults. Bears bite and claw the top of the neck and back of cattle. They often wound their prey, leaving claw marks along the shoulder and back, and tooth marks on the back and neck.



Ravens like to rake hair out of livestock in the spring to build their nests. They will also attack newborn calves, plucking their eyes out, before beginning to eat them.

Constant vigilance is necessary. If prevention fails, remove offending predators by lethal means. Provide protection for the herd by us-

ing solid management practices and disposing of deadstock and afterbirth prudently.

----- VB -----

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Dealing with Deadstock: Not A Dead Issue

Christoph Wand, Beef Cattle & Sheep Nutritionist

Livestock, Deadstock

Nobody wants deadstock, but they are an inevitable product of raising livestock. Having to dispose of a stillborn calf or predation loss is aggravating. In the past, this task seemed relatively simple. But today, this issue has become complex. The key issues regarding deadstock include the realms of sustainability, public health, perception, economics, consumer confidence and environmental protection. Deadstock disposal concerns go far beyond just deciding which method is most convenient.

A Whole List of Concerns

Improper disposal of deadstock poses risks to environmental quality, animal health (in terms of contagious diseases and biosecurity concerns) and public health, which includes the farm family. Additionally, improper disposal of livestock and poultry mortalities is a sensitive public issue. Bloated carcasses are guaranteed to raise a stink (both literally and figuratively)!

At the same time, the worldwide paranoia over prion diseases such as BSE, and local concern over sulfa residues have resulted in changes in the rendering and feed sectors. Fewer types of deadstock are being collected, and the demand for meat-and-bone meal (MBM) of all types has declined. This has led to a sharp drop in the value of deadstock. The deadstock collection and rendering industries, which were once leaders in economically sustainable recycling, are in crisis. Collectors are supported by gov-

ernment sponsored funding projects and must charge producers for collection of their dead animals.

On-Farm Disposal and the Dead Animal Disposal Act (ODADA)

The disposal of deadstock in Ontario is governed by the ODADA, which was a response to public health concerns three decades ago. The Act covers dead horses, goats, sheep, swine and cattle, but poultry are not covered. The species covered by the Act must be disposed of within 48 hours after death in one of three ways:

1. **Pickup by a provincially licensed collector** – the deadstock can then be further processed into hides, pet foods, MBM, fertilizer and so forth. Unfortunately, this material represents only about 5% of all rendered material, and is often seen as lower quality or contaminated for many reasons. The remainder is offal from inspected slaughter facilities.
2. **Burying under 60 cm (2 ft) of soil** and away from all waterways is also a legal method (note: 'burial' in manure is not considered to be buried)
3. **Composting under 60 cm (2 ft) of organic substrate** such as sawdust is also accepted. For many operations this method is a year-round, biosecure method whose product is easily land applied. (note: 'burial' in manure is not composting, especially for cattle).



A Bin Composting Unit. (Photo courtesy of Minnesota Department of Agriculture)

If Deadstock Ever Had a Future, It's Now

The Provincial Advisory Committee on nutrient management issues will be making recommendations on revising deadstock regulations that might be housed under the Nutrient Management Act. They will be taking into account how this issue is dealt with in other jurisdictions. Some options in other jurisdictions **(not currently allowed in Ontario)** include:

- **Refrigerated/Cold Storage** – would allow batches of carcasses to be held on-farm to reduce the frequency of pickup and costs **(currently not allowed under ODADA)**
- **Incineration** – OMAF, the University of Guelph, Environment Canada, MOE and the US Environmental Protection Agency are evaluating incineration through a joint research project. Incineration is **not currently recognized as a legal option for ODADA species**, but has many benefits if the emissions are kept in line. This procedure involves a highly oxygenated, high-temperature sealed vessel
- **Vessel Burial** – this method uses a secure top-access door over a buried structure in which carcasses putrefy. If properly constructed, this method can avoid site contamination. **The status of this method under ODADA is unclear**
- **Natural Disposal** – this involves placing the carcass in a secluded area to be consumed by scavengers and eventually decomposed. **This method is illegal under ODADA.** Al-

though it is the lowest cost method, it is the poorest in terms of animal health protection and controlling predators. Public response to this method is generally negative.

So What?

While the Advisory Committee makes its comments and OMAF considers changing deadstock regulations, what does this mean to you? First of all, deadstock is an unpleasant reality. Every livestock farm will have deadstock. Creating an action plan for a beef farm should be as real a task as doing hay inventories.

For example, burial and composting may seem cheaper than pick-up (if you have it), but is it really? Some estimates would place the cost of composting a dead cow at \$150 once machinery, materials and substrate are factored in. Getting in the backhoe (even if it is yours) costs too. Pricing out a disposal method over the long-term is a good idea.

Collection and rendering are still the ultimate in getting the problem off the farm. Even if the feed use of MBM from deadstock is under pressure, new uses such as Biodiesel and fertilizer grade MBM may have deadstock leaving the farm in greater volumes once again. If this happens, feed grade MBM could be certified free of material from deadstock, and just might increase the swine and poultry sectors' confidence in the product making beef offal worth something again.

Who would have ever thought that deadstock could be so complicated? VB

----- VB -----

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Planning For The Coming Grazing Season

Jack Kyle, Grazing Specialist

The grazing season has just begun. Now is the time to be planning for the next 5 to 7 months of grazing. Planning is particularly important this year if you are carrying more inventory than usual and have started grazing at the first sign of new grass.



Do you know where and what your livestock will be grazing in August or September? The weather will have some impact on the amount of growth that occurs, but the real opportunity to maximize production and extend the grazing season is to plan ahead. With good planning, and by following the plan, you should have forage available for the entire grazing season.

The first step in planning is to look at what your forage needs are for the entire season. The second step is to do an inventory of available forage. As a rough guideline livestock need a daily dry matter intake of about 3% of body weight. **Each inch of growth in a good thick pasture will contain about 150 to 200 lbs. of dry matter per acre.**

Do a budget to estimate how much forage you will require for the coming months. For example; a 1250 pound cow will require about 37.5 pounds of dry matter per day (1250 X 3%). For a month she will require 1125 pounds of dry matter (37.5 X 30). This is equivalent to 7-8 inches of good quality pasture on an acre of land.

As we move into late-July and August, re-growth slows due to heat and lack of moisture.

At this time it will take more acres to meet animal needs. At least 50% of pasture growth occurs during May and June. You will need about twice as many acres to feed your

livestock during the last 4 months of the year versus the first 2 months.

You can make up for this shortfall in growth from a number of different sources.

An intensive rotational grazing program will encourage maximum forage growth and will go a long way to helping you meet the late summer needs.

If there is a significant amount of forage left in the pasture fields after the May-June grazing, it can be utilized during the later part of the season provided it is of reasonable quality. The 2nd growth in fields that have been harvested for hay can be grazed if this forage is not required for stored forage.

Annual crops seeded in late May or June can provide forage for late summer and early fall. Examples of these include sorghum-sudan grass, millets, turnips and cereals.

Finally, if none of the above options are available it may be necessary to use stored forage to supplement the pasture during periods of slow growth.

By planning now, you will be able to maximize the amount of grazable forage that is available to your livestock and avoid the harvest costs associated with stored forages.

----- VB -----

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Long Lived The Cow !

Managing To Maximize Longevity

Joanne Handley, Beef Cattle Geneticist

In cow-calf production systems today, the longevity of brood cows has a substantial effect on herd economic performance. Producers can maximize longevity through wise breeding and management strategies.

With the current depressed market price for cull cows, and diminished demand for “surplus” brood cows, the **need to maximize longevity of the cows in your herd is crucial**. Increasing the longevity of females reduces production costs associated with raising replacement heifers, increases the number of highly productive mature cows, and reduces the number of cows culled.

Getting Their Names On The Mail Box

A brood cow has to wean several calves before she pays for the investment you have made in her. After 3 or 4 calves she crosses the economic divide from “potential profit generator” to “cash cow”. The more cows that have achieved this goal in your herd, the better off you are.

Longevity Genetics

Can we improve the trait of cow longevity through genetic selection? Genetic evaluation is possible, but research has shown that the heritability of longevity is quite low and therefore does not respond well to selection. The most effective way to improve longevity is to manage the risk factors affecting longevity. These risk factors include age at first calving, dystocia and cow body condition at weaning.

Heifers calving after 24 months of age are much more likely to be culled earlier in life than those calving at or prior to 24 months of age. The increased risk with late calvers may be attributable to reduced fertility. Late heifers become later calving cows, with many easing.

Occurrence of dystocia is more likely to result in the culling of both first calf heifers (25% greater chance) and mature cows (58% greater chance). The difference in risk is due to the likelihood of first calf heifers being observed more closely at calving time and earlier intervention in difficult deliveries compared to older cows. To manage these risks, producers should breed first calf heifers to calving ease sires and select females from cow families exhibiting strong maternal calving ease.

Cows that maintain body condition through to weaning are less likely to be culled. Thinner cows take longer to cycle after calving and are thus less likely to rebreed early in the breeding season. Cows not able to maintain condition



through to weaning may be too large in mature size, produce too much milk, or just not be aggressive enough at foraging to thrive in a given production system.

To manage this producers need to appropriately match the biological type and genetic potential of their cows to their feed resources and the environment.

1. **Develop and manage replacement heifers** so they breed early and calve within 24 months of age.
2. **Match the genetic potential** of the heifers for size and milk yield **to the environment** so that rebreeding performance is not compromised.
3. **Minimize the impact of calving difficulty** by breeding heifers to calving ease sires and selecting females with a history of maternal calving ease.

----- *VB* -----

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Feedlot Budgets

Dennis Martin, Feedlot Specialist

Feed costs along with total COP can vary greatly from one farm to the next. For this reason, it's important to know and make decisions based on your own costs!

During the last few months corn and supplement costs have moved higher resulting in much higher cost of gains for feedlot operators. Budget 2 shows the direct impact of higher feed costs.

These spreadsheets are available at:

<http://www.gov.on.ca/OMAFRA/english/busdev/downtown.htm#beefbud>

COP budgets are available for your use and can be used to evaluate past performance (budget#1) or can be used as a tool to project ahead and look at what if scenarios like budget#2.



Budget #1

Yearling heifers purchased fall of 2003

- Ration - dry corn, supplement, some hay

* \$\$\$ Ontario Beef Cattle Cost of Production Budget \$\$\$

Calf Information				\$/Head	\$/lb
Sale Weight	1,350	Sale Value	\$	1,148	
Purchase Weight	950	Purchase Value	\$	950	
Days on Feed	140	Death Loss Value	\$	-	
Death Loss %	-	Margin	\$	198	\$ 0.49

Expected Cost of Gain				\$/Head	\$/lb
Feed (\$/lb of gain)	\$ 0.58	Feed	\$	231	\$ 0.58
Health & Vet. Expenses (\$/hd)	\$ 15	Health & Vet. Expenses (\$/hd)	\$	15	\$ 0.04
Marketing/Trucking (\$/hd)	\$ 30	Marketing/Trucking (\$/hd)	\$	30	\$ 0.08
** Yardage (\$/hd/day)	\$ 0.30	Yardage	\$	42	\$ 0.11
Interest Rate %	5	Interest	\$	20	\$ 0.05
		Expected Cost of Gain	\$	338	\$ 0.84
		Net Return	\$	(140)	\$ (0.35)

Expected Market Situation				\$/Head	\$/lb
Sale Price (\$/lb)	\$ 0.85	Breakeven Sale Price	\$	1,288	\$ 0.95
Purchase Price (\$/lb)	\$ 1.00	Breakeven Purchase Price	\$	810	\$ 0.85

Total Gain (lbs.)	400	A.D.G. (lbs./day)	2.86
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NOTES:

- Feed cost/lb. of gain = 58¢
- Based on harvest time price/2003
- corn - \$129/t
- supplement - \$350/t

Budget # 2

Yearling heifers purchased May/04

- Ration fed - same as budget #1

* \$\$\$ Ontario Beef Cattle Cost of Production Budget \$\$\$

Calf Information				\$/Head	\$/lb
Sale Weight	1,350	Sale Value	\$	1,215	
Purchase Weight	950	Purchase Value	\$	817	
Days on Feed	140	Death Loss Value	\$	-	
Death Loss %	-	Margin	\$	398	\$ 1.00

Expected Cost of Gain				\$/Head	\$/lb
Feed (\$/lb of gain)	\$ 0.74	Feed	\$	296	\$ 0.74
Health & Vet. Expenses (\$/hd)	\$ 15	Health & Vet. Expenses (\$/hd)	\$	15	\$ 0.04
Marketing/Trucking (\$/hd)	\$ 30	Marketing/Trucking (\$/hd)	\$	30	\$ 0.08
** Yardage (\$/hd/day)	\$ 0.30	Yardage	\$	42	\$ 0.11
Interest Rate %	5	Interest	\$	19	\$ 0.05
		Expected Cost of Gain	\$	402	\$ 1.01
		Net Return	\$	(4)	\$ (0.01)

Expected Market Situation				\$/Head	\$/lb
Sale Price (\$/lb)	\$ 0.90	Breakeven Sale Price	\$	1,219	\$ 0.90
Purchase Price (\$/lb)	\$ 0.86	Breakeven Purchase Price	\$	813	\$ 0.86

Total Gain (lbs.)	400	A.D.G. (lbs./day)	2.86
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NOTES:

- Breakeven sale price 90¢!
- Feed cost/lb. of gain 74¢ (up 16¢ from budget #1)
- Why? - much higher feed cost
- May 1st purchase corn price \$172/t vs. \$129/t (fall/03)
- Purchase supplement \$400/t vs. \$350/t (fall/03)

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Flea Beetle Control in Forage Turnips

Jack Kyle, Grazing Specialist

Forage turnips, also known as stubble turnips can be used successfully as a late summer or fall grazing crop. The challenge is getting the seedling turnips established and large enough to tolerate the flea beetle leaf feeding that can occur.

Flea beetle damage will be a concern during the early growth stages of the turnips. Once the turnips have several well-developed leaves, they will be able to out grow the flea beetle damage. **Monitor the fields closely and be prepared to spray if the population gets very high.** The OMAF Field Crop Protection Guide (publication 812) provides some information for control of flea beetles.



The best option for control of flea beetles will be with a post-emergent spray. If beetle damage exceeds 50% of the cotyledon or leaf area, and if the weather is warm and dry, a foliar applied insecticide may be needed. Products for flea beetle control include: diazinon, cypermethrin (Cymbush), and deltamethrin (Decis 5 EC).

Follow label directions and observe the "days to harvest" indicated on the label. **The crop cannot be grazed for between 14 to 30 days after application**, depending on the product used.

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Jack Kyle, Grazing

continued from page 1 ...

In fact, prior to 2003, Canada had been one of many countries to impose strict import bans on any country known to have BSE, whether recording a single case of BSE or experiencing an outbreak. And that has been the key issue with BSE trade responses – the lack of differentiation by the international trading community between nominal occurrences of BSE and widespread epidemics. Whether dealing with an instance of one or many discoveries of BSE, blanket trade sanctions have been imposed automatically and with little hope of reconsideration or amendment.

In this context, **the US-led initiative towards easing BSE-related trade restrictions against Canada is significant.** It is vitally important that this initiative has been spearheaded by the United States. The US is after all Canada's chief market destination.

Further, any implementation of a harmonized and coordinated North American response, as encouraged by the international team of experts that reviewed both the Canadian and US investigations into BSE incidences, requires the support and participation of the principle NAFTA member, the US.

Finally, any hope of influencing the international community to adopt more sound, science-based import protocols is significantly bolstered by the example set by the US. Negotiations by Canada and the US to regain the Asian market continue. The ability for trade in cattle/beef and other affected sectors to resume within the NAFTA might set an important precedent away from the rigid application of full import restrictions, as has been the past practice.

In August 2003, just three months after Canada's discovery of BSE, the US Secretary of Agriculture announced the partial lifting of trade sanctions against boneless meat cuts from animals under a certain age (under 30 months of age for cattle). Mexico soon followed suit. Since then, Canadian exports of boneless beef to the US have almost completely recovered, while similar exports to Mexico have nearly doubled.

That leaves Canadian exports now at about \$150 million/month, still only half the value attained prior to May 2003. **Without question, it is critical that cross-border trade in Canadian cattle resume.**

In November 2003, six months after the Canadian discovery of BSE, the USDA took the unprecedented step of proposing a rule to accept Canadian livestock on the cumulative strength of Canada's rigorous BSE prevention and surveillance measures. The proposal is currently winding its way through the US rule-making process, which includes allowing opportunities for public comment and potentially issuing a final rule.

According to the USDA, the normal timeline for conclusion of this process is two years. Again according to the USDA, the notional timeline for implementation of the proposed rule for acceptance of Canadian livestock was Spring 2004. Then the US discovered its own case of BSE in December 2003, and the rule-making process was put on hold. Presumably the notional timelines have been pushed back as a result.

Happily for Canada, the USDA revived the rule-making process after the close of the trace back investigation into the US incidence of BSE. The rule was not only re-issued in March 2004, but the USDA took the further, significant step of proposing the acceptance of Canadian beef from cattle of all ages (that is, withdrawing the 30 month age stipulation initially suggested). All signs would indicate support by USDA to normalize traded in Canadian cattle and beef as quickly as possible.

So when can we see the proposed rule implemented and cross-border trade in livestock resume? It is the question topmost on the minds of many on this side of the border. Unfortunately, no clear answer is available.

The good news is that the US Administration and bureaucrats within USDA recognize the highly integrated nature of the North American cattle and beef sectors, and that the early resumption of trade in Canadian cattle and beef serves the interests of both jurisdictions. This sentiment is supported by US packers and slaughter plants, which are

long dependent on sourcing cattle from Canada.

There have been notable detractors, however. In mid-April 2004, ten prominent US senators, including Democratic presidential hopeful John Kerry and Democratic Minority Senate leader Tom Daschle, wrote to US Secretary of Agriculture Ann Veneman to argue against implementation of the proposed rule for accepting Canadian livestock. This highlights the political sensitivity of the issue in Washington D.C., which has been further heightened by the coming US presidential election in November 2004.

Another unfortunate development was the successful court challenge of the USDA's recent attempt (issued April 19th) to further expand the list of permitted Canadian beef imports to the US, allowing bone-in and ground beef from cattle under 30 months of age. The Ranchers-Cattlemen Action Legal Fund (R-CALF), a Montana-based cattle producer advocacy group, obtained a **preliminary court injunction halting any further acceptance by USDA of Canadian product until the completion of the rule-making process begun in November 2003.**

This illustrates the fact that any initiative undertaken by the USDA in the exercise of its

administrative authority to amend the original BSE sanctions imposed against Canada one year ago, is subject to judicial review. To safeguard its exercise of such powers, USDA must ensure careful and thorough observance of due process. The ability of R-CALF to secure a court injunction underlines the point. Accordingly, the USDA will be encouraged to review, consider and perhaps respond to each of the 1500 submissions received during the comment period, and to assess the implications of each in the context of a possible final rule.

The bottom line is that the **resumption of cross-border trade in live cattle is more likely to be months away.** However, if nothing else, the past year has demonstrated a resolve on the part of the USDA to move forward on harmonizing BSE responses in North America, including the implementation of science-based import/export protocols. It is hoped that the trend towards lifting the initial BSE-related trade sanctions against Canada will be continued and culminates in the implementation of the USDA proposed rule regarding Canadian livestock without undue delay

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