

Grain-fed veal fact sheet: keeping veal cattle clean

Introduction

The goal of a grain-fed veal farmer is to achieve the desired finish on veal cattle at the right weight and age. Ideally, market-ready grain-fed veal cattle should weigh between 295 to 320 kg (650 to 705 lbs.) at 28 to 32 weeks (seven to eight months) of age. To achieve this goal, it is critical to have the right feed rations and ratios.

Veal is defined as cattle of any dairy breed or dairy crossbreed dressing no more than 190 kg (419 lbs.). This converts to a live weight of roughly 349 kg (769 lbs.), which is reached at approximately eight months of age. Producers are strongly encouraged to target a dress weight of 180 kg (397 lbs.) to maintain some flexibility within the system to manage veal carcass weights.

- Average daily gain (ADG) should be 1.2 kg (2.6 lbs.) or better. Targeting daily gains above 1.5 kg (3.3 lbs.) may require additional nutrient requirements.

Grain-fed veal cattle are fed a balanced ration based of grain (usually clean, whole-shelled corn) and pellets made of protein, vitamins, and minerals. A small amount of fibre should be offered daily to maintain rumen health. Cattle should also have continuous access to their feed, to encourage slower eating and stimulate chewing. Ensure there is adequate bunk space for each animal.

Dirty veal cattle

At certain times of the year, it is hard to keep veal cattle clean, however clean cattle are key to food safety, meaning a dirty animal could pose a risk to human health.



As recommended by the Canadian On-Farm Food Safety Program for veal, the Verified Veal Program, “75 per cent of calves on-farm must have no more than 30 per cent of their abdomen covered in manure.” It is good to verify with the packer if shipping direct, there may be additional requirements outlined by the plant. Manure embedded in the animal’s coat increases the risk of bacterial contamination of the carcass at harvest and poses a food safety risk.

As farmers, it is our responsibility to produce safe food, and this starts with managing your veal cattle and barns in a way that minimizes manure tags.

Escherichia coli (E. coli) O157:H7

Shiga toxin-producing *Escherichia coli (E. coli)*, or STEC for short, causes human foodborne illness which can range from mild diarrhea to very severe and life-threatening conditions, even death. There are several STEC strains frequently associated with human illness in North America; the most common is *E. coli* O157:H7.

STEC live within the gut of cattle without causing them illness and are therefore also present in manure and on hides. Throughout processing, if a carcass is contaminated with STEC, it is possible for contaminated meat to enter the food chain and potentially infect consumers.

Meat contaminated with *E. coli* O157:H7 may not look or smell spoiled but can still make people sick. This pathogen is dangerous to humans, especially those with an immature or weakened immune system, because it produces a toxin that can cause severe illness and even death. Cattle are the primary source *E. coli* O157:H7. Contamination of carcasses with *E. coli* O157:H7 occurs during harvest and dressing procedures, especially de-hiding and evisceration.

Mud and manure caked on cattle is not healthy for them nor for the consumer. Incoming cattle with visible mud or contamination on the hide may have high levels of *E. coli* O157:H7, therefore it is extremely important that veal cattle received at the abattoir are as clean as possible.

To reduce the likelihood of contamination during the dressing and evisceration process, abattoir operators may implement a “mud/dust scoring system” that will help them to identify problem animals at receiving and allow for adjustment to the harvest process to minimize or prevent contamination.

It is important to work with the abattoir on pre-slaughter management practices aimed at reducing the *E. coli* O157 load. Cleanliness of cattle presented for harvest contributes to the production of safe meat, minimizes the risk to human health, improves the shelf life of the meat, increases consumer confidence, and protects industry’s reputation and investment.

Product recalls, triggered by suspected contamination of *E. coli* O157:H7, can cost the industry millions of dollars. These recalls are expensive to packers, processors, and retailers, and costs are inevitably passed on to producers. In addition to direct costs, it is estimated that any food safety incident, whether real or perceived, that causes concern in consumers results in reduced prices and lost sales for three to six months or longer.

Prevention

Factors influencing how much STEC is carried by veal cattle include: farm management practices, season of the year, whether cattle come from a farm or feedlot, age, fasting or temporary change of ration prior to processing, cleanliness of hides, and transport and handling conditions between farm and processing.

Basic recommended principles or best practices of cattle management to reduce spread of STEC during the production cycle include:

- Keep veal cattle bedded (adjust your bedding needs accordingly to prevent animals from lying in manure)
- Providing clean water, clean feed, and a clean environment that is appropriately drained
- Avoid overcrowding to control hide cleanliness

- Ensure there is an efficient manure removal system, poor systems can create situations where STEC will persist in the herd and spread to younger animals
- Implementing biosecurity management practices to prevent the movement of disease-causing agents on to, and off-farm
- Do not mix other livestock with veal cattle, i.e., sheep and deer are known to be carriers of STEC
- Implement a good rodent control program
- Maintain clean clothes and equipment for farm and feedlot personnel to help reduce the opportunities to transmit STEC between herds or between cattle on the same farm
- Reducing feed volume prior to transportation can help reduce hide contamination that often occurs during transit and holding by reducing gut contents
- Transporting animals in clean trailers and housing them in pens that are well-bedded will decrease the amount of mud, manure, contaminated bedding, and other materials present on hides that increases the risks of carcass contamination during dressing

Tag scoring system

Below is a tag scoring system that was developed by Ramsey & Allen, 1975. This system is still used today. Take the time before shipping your cattle to score them. How do they compare?

1 = no tag, clean hide (0)

2 = small lumps of mud on hide in limited areas of the legs and underbelly (5.7)

3 = small and large lumps of mud in large areas of the legs, side and underbelly (12.8)

4 = small and large lumps of mud in even larger areas along the hindquarter, stomach, and front shoulder (NA)

5 = lumps of manure on hide continuously on the underbelly and side of the animal from front to rear (23.2)

() is pounds (lbs.) of mud on animal



Conclusion

Keep in mind when marketing your veal cattle that this is a food product, and you want to ensure you have taken every precaution to ensure food safety. There is no single activity that will control all pathogens in the entire meat production process, but rather a multiple step approach that includes each step from on-farm through transportation and processing. Food producers need to recognize that applying effective controls at all levels are the most effective means to producing safe food and safeguarding the industry.

For more information:

As part of your research into starting a grain-fed veal farm, you are encouraged to talk to experienced veal producers, visit their farms (while following strict biosecurity protocols), and attend industry events and meetings. No two veal farms are the same and a lot of valuable information will be learned from each visit and event.

Find VFO website producer resources here: <https://bit.ly/VFOProducerResources>

Find the *Code of Practice for the Care and Handling of Veal Cattle* here: <http://bit.ly/theVealCode>

Find Ontario Ministry of Agriculture, Food and Rural Affairs veal resources here: <https://bit.ly/OMAFRAVealBusiness>

References available upon request.

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[@Finishing grain-fed veal in Ontario](https://facebook.com/FinishingGrainFedVeal)

[@Marketing of male dairy calves in Ontario](https://facebook.com/MarketingOfMaleDairyCalves)

YouTube: [Calf Care Corner](https://youtube.com/CalfCareCorner)

[OntarioVeal](https://youtube.com/OntarioVeal)

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