

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.

Thermoneutral zone

A calf is born with only two to four per cent body fat. The thermoneutral zone of a calf from birth until four weeks of age, is between 10°C and 25°C (50 to 77°F), and from four weeks to weaning, it increases to 0°C to 25°C (32 to 77°F).

This range reflects the temperature where calves do not need any additional energy to maintain their body temperature. This means that if outside temperatures fall below this range then calves need extra nutrition to keep warm and healthy. Think of this as when the calf is most comfortable and in a positive energy state.

Bedding

Calves should be bedded with straw during the colder days when the temperature is below the thermoneutral zone. Straw provides the insulation required to maintain body temperature. Straw is the warmest bedding type.

Straw is absorbent, so it is important to add fresh bedding regularly with caution around adding large amounts of straw at once. Smaller, frequent amounts help with dryness and keeping the top layer from being compacted.

Straw bedding provides warmth for young calves and should be used in both indoor and outdoor housing.

During the heat of summer, shavings are acceptable provided it is warmer than 10°C (50 °F).

The kneel test

If the bedding looks dry on top, but you're not sure what's underneath, do the kneel test. That means kneeling in the bedding for 20 seconds – if your knees have any moisture after, that indicates the bedding is too wet and another layer of bedding should be added.

Comfort

Wet bedding and cold temperatures can challenge the calf's immune system, causing stress, burning body fat, lowering growth rates, compromising the immune system, and making them more susceptible to disease and even death.

In the cold winter months, bedding is invaluable to ensure calves are using the milk and feed they consume for growth instead of trying to keep warm. Dry, plentiful bedding is just as important in the spring and fall, when the weather fluctuates, and overnight temperatures can still be cold.

When calves spend the bulk of their day, up to 20 hours or 80 per cent of their time, lying down, research suggests that these are indicators of calf comfort and that they are content in their environment, indicating good welfare.

Nesting

Deep straw bedding has been shown to minimize three of the biggest winter calf care challenges: scours, respiratory disease, and reduced growth. How much straw is required will depend on the time of year. If they are housed indoors or outdoors and whether or not the animals are wearing calf coats.

When providing straw bedding, make sure it is at least eight cm (about three inches) deep and it is clean and dry. That's because calves will actively work to avoid wet bedding if they have the choice.

Straw should be bedded deep enough that the calf can nestle in. This traps warm air around the calf, which will help maintain body heat. For the winter months, straw should be deep enough that when the calf is lying down its legs are generally not visible.

Nesting scores

The University of Wisconsin-Madison has developed a nesting score system to help guide producers in their calf bedding management. Nesting scores should be evaluated when the calf is lying down.

Nesting score 1: the bedding doesn't cover any part of a calf's foot or leg when the animal is lying down. This score is not appropriate for winter but is observed in the summer when calves are bedded with sand or wood shavings.

Nesting score 2: the calf is nestled slightly, with the lower leg partially covered by bedding and part of the upper leg remaining visible. In winter, this score would only be appropriate if the calf is also wearing a calf jacket, which increases the nesting score by one. Without the jacket, there is not enough bedding for the calf to nest in and stay sufficiently warm.

Nesting score 3: the calf's legs are not visible when it is lying down in the straw. The straw is deep enough to allow the calf to nest, trapping warm air around its body. The ideal depth is three to four inches (7.6 to 10 cm) of shavings, topped with 12 inches (30 cm) of straw.

Good bedding and plenty of it is the most economical way to keep calves healthy. Preventing or minimizing illness means avoiding costly treatments and other losses down the road.

Download a copy of *A Producer Guide to Evaluating Nesting Scores* here: <https://calfcare.ca/management/a-producer-guide-to-evaluating-nesting-scores/>

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.

Veal Farmers of Ontario

449 Laird Road, Unit 12, Guelph, Ontario N1G 4W1

Tel: 519-824-2942

Fax: 519-824-2534

E-mail: info@vealfarmers.ca

Find us online:

www.vealfarmers.ca

www.calfcare.ca

Find us on social:

Twitter: [@OntarioVeal](https://twitter.com/OntarioVeal)

[@CalfCareCorner](https://twitter.com/CalfCareCorner)

Facebook: [@CalfCareCorner](https://facebook.com/CalfCareCorner)

[@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)

Disclaimer: This resource is for educational purposes only. Veal Farmers of Ontario is not responsible for any business or management decisions made by consulting this resource.

Revised: June 2022