

Veal Production & Iron Requirements

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As Veal Farmers of Ontario (VFO), we are a diverse group of farmers. Some raise grain-fed veal, others milk-fed veal, some start calves for the dairy-beef market, and some are dairy producers who are selling the male calves (Bob calves) to finished veal producers.

With the updated *Code of Practice for the Care and Handling of Veal Cattle* scheduled for release in late November 2017, new requirements for milk-fed veal production are coming. Now is a good time to review some of the many changes that have occurred in the Ontario veal industry over the years.

Until the early 90s, milk-fed veal was the standard method of raising young calves for the veal market. Now in 2017, so much has changed. The Ontario milk-fed veal market has declined dramatically with only a few very specialized operations left finishing milk-fed veal. Grain-fed veal has become the new norm for Ontario veal production.

As times have changed and production has declined, the method of raising milk-fed veal has also changed dramatically. Some of the changes include access to solid feed and improved iron management.

Over the last five to ten years, providing milk-fed veal with access to solid feed has become the norm. Producers have identified a type of solid feed that improves health and welfare, but does impact the meat colour slightly. Today's milk-fed veal does not have the same meat colour that milk-fed veal of the 70's and 80's had, but because of excellent iron management, producers are able to maintain a good meat colour while feeding solid feed. As meat colour is what sells milk-fed veal to consumers, monitoring and managing iron levels is more important than ever.

In current milk-fed veal production, it is recommended that calves be given additional iron in milk replacer; the milk replacer should have at least 40-50 mg of iron/kilogram of dry matter during the starting period. Solid feed should be provided throughout the whole rearing period and milk-fed veal producers should aim for hemoglobin concentrations of at least 9.7g/dl in calves up to 10 weeks of age. The Code has very clear requirements for acceptable hemoglobin levels. Hemoglobin is a protein in red blood cells that contain iron. Hemoglobin levels can be used as an indicator of meat colour. Higher hemoglobin levels usually result in darker veal colour.

One recommendation from the Code is for veal producers to maintain a Health Record which includes hemoglobin levels as a reference to plan iron management for different times of the year and make adjustments to protocols. You can't manage what you don't measure and if you are measuring it why not write it down!

Implementing vet-approved written protocols are becoming common practice for many, but under the Code, this will be a requirement for all operations.

Milk-fed veal producers have always taken great measures to achieve iron levels that maintain the health and welfare of the cattle while retaining the desired colour for the finished product. One of the

main selling features of milk-fed veal is the meat colour; it is what distinguishes veal from beef. Producers have made tremendous advancements in milk-fed veal production and the updated Code of Practice is the industry standard that all milk-fed veal producers will be required to follow after November 2017. For more information on the Code please contact the VFO office.

Below are the following requirements from the updated *Code of Practice for the Care and Handling of Veal Cattle* regarding iron management for milk-fed veal.

Cattle must have access to feed of quality and quantity to fulfill their nutritional needs.

In milk-fed veal systems, a written protocol designed to prevent anemia must be developed, approved by a veterinarian, and implemented. The protocol must include blood hemoglobin monitoring (i.e. frequency and timing) and thresholds for iron supplementation.

Through diet and/or supplementation, average blood hemoglobin concentration in a group must be maintained or corrected to at least 8.5 g/dl (5.3 mmol/l), with the exception of the last 4 weeks of rearing.

If, in the last 4 weeks of rearing, average blood hemoglobin concentration in a group is found to be below 7.7 g/dl (4.8 mmol/l) corrective action must be taken.

Individual veal cattle found to have a blood hemoglobin concentration below 7.2 g/dl (4.5 mmol/l) must receive iron supplementation.

Corrective action must be taken for individual veal cattle showing signs of anemia.

