

# **DAIRY CALVES** *PREPARATION AND MARKETING*

*ACCOMPANYING DOCUMENTS  
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Les Producteurs  
de bovins du  
Québec



# NAVEL DISINFECTION

A calf is born without an immunity system in an environment full of bacteria and microbes ready to infect the calf.

The newborn calf's navel is a gateway for the bacteria and microbes to enter the body. This access is directly connected to the dairy calf's liver, bladder and blood system.

It is important to clean and disinfect the navel, as the opening is not yet completely closed in the first hours following birth.

**To disinfect, use tincture of iodine with a concentration of at least 5% and repeat the disinfection in the next 12 to 24 hours.** The usual tool is a **teat dip** intended solely for this purpose. For each disinfection, use a dose of tincture, and discard after use. It is also essential to perform this operation with clean hands to obtain optimal results.

## CALVING AREA

The dairy calf is in a sterile environment inside the cow's uterus. It is born without an immunity system to protect it. The risk of infection must be kept at its lowest at the place of birth when the calf is born. The ideal would be for the calf to be born in a dry, draft-free, well-cleaned environment dedicated to calving. The calving area should not be used for other purposes, such as an infirmary.

Keeping the calving area well maintained between each birth is important for the cow and the calf:

1. Remove the dirty bedding;
2. Pressure wash with water;
3. Use a detergent intended for farm use;
4. Dry completely;
5. Disinfect with an effective product;
6. Spread clean bedding for the next calving.

Once the calf is born, it is recommended to separate it from its mother and other adult cattle for the first 24 hours following birth. The mother can transmit several pathogens to the dairy calf through her saliva, milk or manure. If infected, the calf can become a source of diseases and transmit them to other animal.

## IMPORTANT

### THE CALF IS BORN WITHOUT AN IMMUNITY SYSTEM.

- › The newborn calf's navel is a gateway for the bacteria and microbes to enter the body.
- › An infection through the navel can have very serious consequences and even be fatal for the calf.
- › The liver, bladder and blood system are directly accessible through this opening.

### THE NAVEL OPENING TAKES SEVERAL HOURS TO CLOSE

- › Clean and disinfect the navel with **tincture of iodine with a concentration of at least 5% and repeat the disinfection in the next 12 and 24 hours.** Use teat dip and change the product after each application.
- › Must have clean hands.

## CALVING AREA

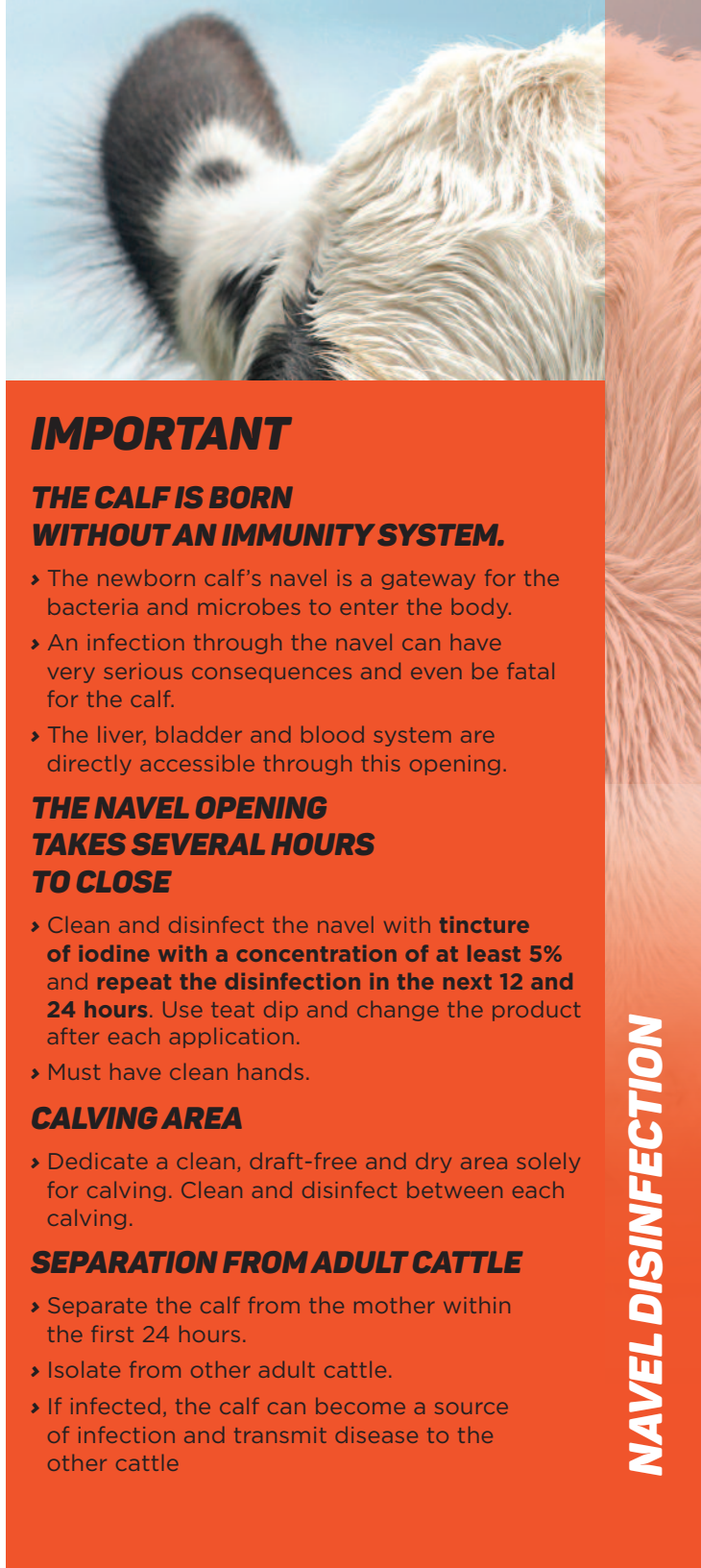
- › Dedicate a clean, draft-free and dry area solely for calving. Clean and disinfect between each calving.

## SEPARATION FROM ADULT CATTLE

- › Separate the calf from the mother within the first 24 hours.
- › Isolate from other adult cattle.
- › If infected, the calf can become a source of infection and transmit disease to the other cattle

For advice on the health of your dairy calves, ask your veterinary practitioner.  
[www.amvpq.org](http://www.amvpq.org)

NAVEL DISINFECTION



# COLOSTRUM

The newborn calf has no protection against all the bacteria, microbes and micro-organisms present in its environment. In addition, it needs a significant energy intake to build strength to face its new universe. It is therefore essential that it ingest an adequate quantity of quality colostrum as soon as possible after birth.

It is recommended that the first meal be given within the **first two hours following birth with a sterile bottle**. The colostrum must be taken from the cow with clean equipment and hands. It is suggested that measuring the quality of the colostrum be done with a **refractometer** in order to adjust the quantity accordingly.

Ideally, the colostrum from the first milking should be kept as it is the richest in immunoglobulins, energy and other substances essential to the calf.

It must be kept in the refrigerator before warming it up to body temperature to give it to the calf within 12 hours following the first colostrum meal. These basic elements increase the chance of a successful passive immunity transfer and provide the calf the best chances.

## THE CALF AS A MEMBER OF THE HERD

The dairy calf is a member of the herd. However, it is a special member that must be kept in an appropriate location. **It must stay dry, protected from inclement weather and drafts and kept in a clean place.**

The ideal is to keep it in an individual pen where it cannot come into contact with other cattle, but is able to see them. It must be comfortable, able to lie down and move around.

It is important to provide adequate straw bedding. Dry straw bedding that covers most of the calf's legs when it is lying down is ideal. A good layer of clean and dry straw protects the calf against humidity, cold, pathogens and ammoniac vapours. It also helps to keep the calf clean. How do you know if it is adequate? Would you lie down in the calf's bedding?



## IMPORTANT

### THE NEWBORN CALF

- › Has no protection against all the bacteria, microbes and micro-organisms present in its environment.
- › Needs significant energy intake.

### COLOSTRUM

- › Quality + Quantity + Speed (Winning trio)
- › Administer 200 g of immunoglobulin
- › Give the first meal within the **first two hours of life**
- › Body temperature
- › Use a sterile bottle
- › **Give a second meal 12 to 24 hours after the first meal**
- › Milk the cow with clean equipment and hands

### A CALF IS A MEMBER OF THE HERD KEPT IN AN ADEQUATE PLACE

- › Dry and clean
- › Protected from drafts and inclement weather
- › Individual space where it can lie down and see other cattle

### BEDDING

- › Keep the bedding clean and dry
- › Must cover the legs when lying down

COLOSTRUM

For information and advice regarding colostrum or dairy calf housing, consult your Valacta technician.

[www.valacta.com](http://www.valacta.com)



## AT THE AUCTION

Dairy calves sold in Quebec auctions are mainly used to supply **grain-fed calf** and **milk-fed calf** farms. When taken to an auction, dairy calves are put up for bids to be assessed by the buyers present. **Calf buyers only have a few seconds to assess the calf and bid on it.**

Dairy calves are all different in terms of health, genetic and fattening potential. The buyers must assess the apparent health of each calf.

**The important points associated with health are the appearance of the navel, knees and feet as well as the general condition of the dairy calf.** Very young calves are generally not sought by buyers.

Afterwards, the calves are grouped in lots at the auction or sorting centre to fill in the orders of heavy veal producers. Veal producers usually seek lots that are as uniform as possible in order to balance their operation's feeding and management.

### THE BUYER'S EYE

During an auction sale, a buyer assesses several points of the dairy calf in only a few seconds in order to establish its value:

**Its health through hints of problems (sign of fever, diarrhea, swollen navel, swollen knees, mucus on the nose, droopy ears);**

**Its weight and age: to determine what kind of farm to send it to (wet navel, humid hair);**

**Its conformation: to assess its fattening and muscle development potential for future slaughtering.**



## IMPORTANT

- › Calves are sold at auction sales on a live weight basis.
- › Specialized buyers choose the calves to fill in orders for heavy veal producers.
- › The **calf's health is a very important point assessed by the buyers**. Signs of disease, fever, arthritis, diarrhea, umbilical hernia, discharges, droopy ears, dehydration or weakness are assessed.

### AGE

- › Newborn calves are not sought after. Buyers want a healthy calf with good reserves of energy

### ADVICE FROM BUYERS

- › Disinfect the navel
- › Give colostrum
- › Isolate at the farm in a location adapted to the calf.

To find out about prices paid and the volumes of dairy calves sold in Quebec, you can visit the Producteurs de bovins du Québec's website.

[bovin.qc.ca/info-prix/bovin-de-reforme-et-veau-laitier/hebdomadaire](http://bovin.qc.ca/info-prix/bovin-de-reforme-et-veau-laitier/hebdomadaire)

# HEAVY CALVES

The North American heavy veal (grain-fed veal and milk-fed veal) industry is primarily concentrated in Quebec. The majority of dairy calves sold by Quebec dairy producers are bought to be finished as **grain-fed calves or milk-fed calves in Quebec**.

Elsewhere in Canada and in the United States, dairy calves are usually to be finished as Holstein fed cattle.

Dairy producers are the **first link** in the heavy calf chain, a value chain primarily implanted in Quebec. Each year, nearly 200,000 heavy calves are finished in Quebec as grain-fed and milk-fed calves.

The majority of the dairy calves needed for finishing are bought in Quebec, which gives dairy producers an advantageous local outlet. In Quebec, there are 160 grain-fed veal producers and 140 milk-fed veal producers.

## A LEADING SECTOR

The heavy calf sectors have become increasingly specialized and efficient. Calf production requires leading-edge expertise and specific equipment. In recent years, the use of antibiotics and drugs has been restricted when rearing heavy calves. This situation is making the rearing of heavy calf more sensitive to the quality and health of the dairy calves sold.

A dairy calf born in good condition and having the appropriate care has more chance of resisting stress and disease. In addition, it will perform better during the finishing period.

**The health of heavy calves is an important factor for the profitability of Quebec heavy calf operations.**



## IMPORTANT

- › The heavy veal sector is comprised of **300 Quebec producers**
  - › 160 grain-fed veal producers
  - › 140 milk-fed veal producers
- › Canadian production centered in Quebec
- › Specialized production with leading-edge techniques and specific equipment
- › **Need to have healthy calves**
- › Need to consider health as an input
- › One lost calf = loss of revenue and uncompensated expenses
- › Dairy producers are the first link in the production chain. Veal producers are next.

### MILK-FED CALF

- › 20 weeks
- › Feed based on dairy products

### GRAIN-FED CALF

- › 30 weeks
- › Feed based on grain and supplements

A milk-fed calf is finished with feed based on dairy products for 20 weeks before being sold.

[veaudelait.com](http://veaudelait.com)

A grain-fed calf is fed for more than 30 weeks with feed based on grain and supplements before reaching its market weight.

[veaudegrain.com](http://veaudegrain.com)



## ANIMAL WELFARE

A dairy calf is an animal that has special needs due to its age and upcoming changes. **Calving, adaptation to its new environment, first contact with humans and transportation to the farm are great sources of stress and fatigue for a calf.**

It must therefore be better understood and prepared for these steps. Its vision is not yet completely developed during the first weeks of its life. It sees double and must rely primarily on its hearing to adjust to its new environment.

**Therefore, a calf can hesitate a long time before taking a step in an unknown place such as a truck or an auction sale.** We can detect where it is focusing its attention by looking at where its ears are pointing.

It is important to handle a calf gently by using the hands or adapted visual objects without making stressing noises. A calf does not possess a flight zone and tends to try to get close to other cattle. It is therefore suggested to handle calves in small groups and without making noise.

### WHAT IS ANIMAL WELFARE?

**Animal welfare** is difficult to define and measure. It is defined according to the five freedoms of animals established by the World Organization for Animal Health.

These five points helps us to determine if an animal is in a situation that meets its needs.

- **freedom from hunger, malnutrition and thirst;**
- **freedom from fear and distress;**
- **freedom from physical and thermal discomfort;**
- **freedom from pain, injury and disease; and**
- **freedom to express normal patterns of behaviour.**

## IMPORTANT

### SPECIAL NEEDS

- › Vision not completely developed, sees double.
- › Hearing is the primary link with its environment
- › Does not know what humans expect of it
- › Does not have a prey reflex like adult cattle (no flight zone)

### MOBILITY

- › Manipulate gently and quietly
- › Use visual signals adapted to its vision
- › **Electric prods are to be avoided.** They are ineffective, stress the calf unnecessarily and can mark the carcass.
- › **Canes, sticks and whips are not the best tools as the calf cannot see them properly.**
- › Use your hand, arm, a flag or a panel.
- › Avoid pushing it, as it may fall and get injured. It is young and not yet solid on its legs.

### WHAT IS ANIMAL WELFARE?

- › It is defined according to the five freedoms
  - › freedom from hunger, malnutrition and thirst;
  - › freedom from pain, injury and disease;
  - › freedom from physical and thermal discomfort;
  - › freedom to express normal patterns of behaviour;
  - › freedom from fear and distress.

In Canada, the best practices regarding dairy calves are defined in the Code of Practice for the Care and Handling of Dairy Cattle

[www.nfacc.ca/codes-of-practice/dairy-cattle](http://www.nfacc.ca/codes-of-practice/dairy-cattle)

