

CALVING EASE

September 2014

Sam Leadley, Attica Veterinary Associates

Calves: When is a Draft Not a Draft?

- **Draft: unwanted local cooling of the calf caused by air movement.**
- **Drafty environments stress calves increasing the risk of illness.**
- **Draftiness increases as air speed goes up, air temperature goes down**
- **We can manage housing to reduce drafts.**

All of us have experienced a draft. I was standing on the shaded side of a heifer barn back in April in the wind – there was unwanted local cooling on parts of my body. I was chilled and stressed! I stepped around the corner of the barn out of the wind (air speed went down) into the sun (air temperature went up). I felt much less stressed.

When is a draft not a draft?

Unwanted local cooling of a calf typically takes place when either the air around the calf is moving too rapidly or the air temperature is too low or both of these conditions.

On one hand, during hot summer conditions calves are not stressed when we have big fans moving warm air rapidly through their barn. On the other hand, during cold winter conditions calves can easily experience stress when housing does not block chilly air even when air speed is relatively low.

Managing facilities to reduce drafts: hutches

When do we need to be concerned about “cold” air movement? As a simple rule of thumb, if you need to wear a sweatshirt to do calf chores at your hutches then the air is cold enough to create undesirable chilling of calves.

Do you raise the rear of hutches during the summer? Good practice for summer; not so good for cold conditions – get the hutches back on the ground for cold weather. Do you open vents on the rear/top of hutches during the summer? Get those closed for cold weather.

How do we judge ideal bedding conditions for cold weather? A good cold-weather bedding material is clean, dry wheat straw. How much is enough bedding? When the calf lies down

we should not be able to see her feet. This “nesting” effect helps reduce the speed of air movement around the calf – reduces drafts.

For very young calves or ones that do not seem to be smart enough to stay inside the hutch during the night-time hours, consider blocking the front door opening. For the do-it-yourself person a small square bale of straw works. For commercial options just Google “calf hutch door” to find products from Agri-Plastics, Calf-Tel and Nasco. I am sure there are other equally cost effective products available locally wherever you are located.

Managing facilities to reduce drafts: barns

In barns we often have thermometers – so watch yours and when it consistently is below 50F (10C) begin your “draft” watch.

If your naturally-ventilated barn has curtain-type sidewalls this is the time of year to begin more intensive management of these curtains. Research monitoring interior temperature changes and air exchange suggests that curtains may need to be adjusted up to seven times a day in order to achieve optimum air exchange without excessive air velocities. Clearly, that frequency depends partly on the outdoor wind speeds and directions.

The calf care person’s judgment is very important in naturally ventilated curtain-sided barns. We have to remember that the significant air movement is at the level of a calf lying down in a pen – not standing in the middle of the work alley.

Calf pens near doors or ends of a barn may need extra barriers to prevent excessively rapid air movement.

If positive-pressure ventilation tubes are added it is important that the tube placement and location and size of holes in the tubes be designed to provide adequate but not excessive air exchange.

Managing calves to reduce the effect of drafts

1. Feed plenty of high quality clean colostrum as soon as possible after birth.
2. Feed plenty of clean milk/milk replacer to support at least 1 lb. /day growth even in cold weather.
3. Be sure calf hair coats are clean and dry – especially on youngest calves.
4. Put calf blankets on at least the younger calves most vulnerable to drafts.

References: ASHRAE Standard 55-2004. Gooch, Curt. A., “Role of Facility Design and Ventilation on Calf Health” Accessed at <https://ecommons.cornell.edu/handle/1813/36959>

If you know of someone that doesn’t currently receive **Calving Ease** but would like to, tell them to **WRITE** to **Calving Ease**, 11047 River Road, Pavilion, NY 14525 or to **CALL** 585-591-2660 (Attica Vet Assoc. office) or **FAX** (585-591-2898) or **e-mail** calvingease@rochester.rr.com with **Subscribe** as the subject. Back issues may be accessed on the Internet at either www.atticacows.com or www.calfnotes.com and clicking on the link, Calving Ease.

Remember to Google “Calves with Sam” for the blog on calf rearing.