

Natural ventilation design, auto feeder barn,
recently expanded barn to add 2nd feeder and
separate weaned calves



Rusty Creek LLC
6 Generation Holsteins
LaPierre Family,
Chazy, NY

Facility	Two barn sections, 6 total pens. Newest 2 pen section added 2012. Calves to 14-16 weeks. Started with One GEA autofeeder in a warm room w/2 pens; 2 nd AF online this October w/2 more pens. Plan to always have one empty pen, and All in All Out, which is a change from only 2 pens. Weaned calves are in two pack pens, now at new section of barn.			
Colostrum Management	Checked with colostrometer for last year. 4 qts 'green' collected in Perfect Udder Bags, frozen or fresh fed 1-4 hrs. Not checked serum total proteins recently. Also First Defense, Inforce3, dehorned with paste, ear tagged.			
Age at Introduction	Starting October 2012 w/ new feeder, calves start day 2-3. Was day 3 to 5, moving every Tuesday and Friday. Calves catch on very fast, much easier since we move in at 2 days old; sooner seems to be better.			
Feeding System Components- calves per pen	2 Westfalia GEA Milk replacer Auto feeders, 2 nipples each (Forster Technik). Each housed in warm room with sink. 1 nipple per pen. Up to 12 to 15 calves per pen* OR age spread up to 21 days, whichever comes first . *a change started Oct 1, 2012			
Liquid Feed/ Additives	23:22% Poulin Grain All milk Arctic blend Oct. on; 24:20 All Milk last summer. Probiotic- 14 grams per day for 10 days.			
Feeder Program (Settings: Days , Min , Max)	Quantity	Limitation		Concentration
	10 4.6 to 8 Liters	8	1.5 to 2 Liters	140 g/Liter to 140 g/Liter
	31 8.0 to 8	34	1.5 to 2.5	
	2 8.0 to 4	7	2.5 to 3.0	49 days on feed
	6 4.0 to 4			
Pen Moves/ Weaning	No pen moves until weaned. *a change started Oct 1, 2012			

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Autofeeder pen



Weaned calf pack pen

Mixing/ Cleaning

Wash outside of the feeders 3 times per week; Wash nipples daily
Triphan - Spray Nine
Waters cleaned daily

Resting Area Space excluding feed alley

30 to 38* sq. ft. per calf, which is a recent change from 20 sq. ft. We added the second feeder and reduced number calves per pen. Our barn has a feeding alley along the feed manger not included in calculations. Feed alley cleaned daily.

Bedding

Sand base, sawdust on top. Since October 1, started using straw on top of shavings. Calves are much more comfortable and will be dryer and more insulated in cold weather.

Jackets

October to end April, first 4 weeks.

Ventilation / Drafts

Barn is designed for natural ventilation. Satisfaction has been minimal. Positive pressure ventilation tube installed April 2012.
Believe drafts have been a problem and have been considering what changes to improve it. Hope, PPV tube, changed bottom curtains from rolling down to rolling up, bedding with straw Oct. 2012, and moving older weaned calves to their own section will help.

Treatments

Overall treatment rate has been too high, over 30% of calves. Have implemented several things in last 6 months to improve ventilation and comfort which should have positive impact. Scours: Tx age tends to be 10-21 days of age.
Respiratory: Seasonal Oct-Dec, Mar-May, and higher than we would like. Tx age 10-21 days; relapses at weaning. Prevail, Zactran

Weaning Strategy

8 day weaning, step down aggressively for 2 days by reducing volume 50%, same solids %. Keep 50% volume 6 days. Now, all calves moved out together once all weaned at 8-10 weeks.

Dry feed

High quality pelleted calf starter free choice, from day one, in feed trough inside pen, and also in full length feed manger w/ slant bars. Newborns get 'taste' of high quality hay for 2-3 wks.



One aut feeder stall of 4; 2 warm rooms



Autofeeder pen, manger, Nelson waterer

**Grain intake
@ weaning**

1 ½ pounds of grain. Difficult to determine with the age range within the group

**Weights /
Avg Daily Gain**

Weigh at birth and graduation to weaned pens. First with tape, now Way-Pig 15 scale.
ADG 1.6 to 1.7 @ day x to x approximately.

**Vaccinations
(Cow & Calf)**

Dry cows: J Vac, Clostridia, Bovishield
Newborns: Inforce3 & First Defense; Vista Once at 14-16 wks of age

**Biggest
Challenges**

Good Ventilation? Lower treatment rates.

**Changes to
Make?**

Monitor the changes implemented in the past few months:

- Fewer calves per pen
- straw bedding
- PPV tube
- curtain change
- all in, all out
- milk replacer and % solids
- treatment rates

Recommend

TO DO: get the ventilation right
TO DO: ample space for “flush” calving’s

TO DO: ALL in ALL out - work in progress here
TO DO: Fresh Pen management

PPV Tube inside truss



Weaned pens w/ headlocks

