

## **Full House**

Dr. Ray Reynen

April 2017

Many dairy facilities are presently at maximum capacity. This is largely a consequence of the quota increases Ontario has received in 2015 and 2016. Full barns quickly have the industry considering new facilities and expansions.

More space and improved facilities are great, and when designed well the herd almost always says “thank you” with either increased productivity/health or both.

There are many excellent advisers to help design an appropriate new facility or expansion. When designing the facility a simple rule to make sure we do not forget something or someone is to deal with “the six” areas for each class of cattle.

The six areas are:

- a) resting area
- b) eating area
- c) drinking area
- d) ventilation
- e) alleys
- f) lighting.

If we take care of all aspects of the six areas for all classes of cattle we are great. This is where we need to be careful as there are many groups of cattle on a dairy farm. These groups can include all of the groups listed below.

- calving pen
- pre weaned calf housing
- weaned calf housing
- calf housing 3-6 months old
- heifer pen - 6-12 months
  - breeding age
  - pregnant pen
- far off dry cow
- close up dry cow
- special needs pen
- fresh cow pen
- milking cow area(s)

So with at least 12 groups of cattle to plan for and 6 criteria for each group a little bit of planning is needed.

To predict the number of head in each area is critical. You can base your predication off the “average” herd, but if you have your own historical data that is much better. As an example the average herd has 7-10% more calvings than mature cows in the herd. However I have seen herds run constantly at 20% more calvings then cows. That 10-13% difference will drastically shift calving pen needs and pre weaned calf area.

The animal number prediction is a critical number for all classes. If you must base your prediction off ONT Average, please consider when your herd may not be average.

Examples to think about are:

- i. stillborn rates
- ii. pre weaning calf mortality

the lower they are the more calf space you need

iii. use of sexed semen

more usage of sexed semen increase calf/heifer space needed

iv. age you sell your baby bull calves

v. age at weaning

more bull and/or higher age at weaning, more pre weaning space needed.

Hmm ...

Knowing where we are today and how we plan to manage our herd will help accurately predict animal numbers in each group.

Hmm ...

Is average what we need to always plan for??

When it comes to the close up dry cow and calving area, average is not where we want to be. Dr. Nigel Cook at University of Wisconsin strongly supports we plan this critical area at **40%** above the average prediction. So if your average is going to be 10 calvings per month, please plan the close up and calving area to handle 14 calvings per month. This increase in cow numbers allows for this critical area to almost always have enough space for when the "blip" of calvings happens.

Wow 6 areas of concerns +/- 12 classes of cattle. Accurately determine animal number in each class and PRESTO, we have the formula to help create a comfortable barn. Cows in a comfortable barn will for sure say "thank you".