

Nursery Management – Big Pens

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■ Introduction

Traditionally in Western Canada, weaner and grower/finishers have been grown out in pen sizes ranging from 15 to 30 pigs. With these sizes we have seen different combination of systems:

- Continuous flow nursery
- All in all out nursery
- Continuous flow grower
- Continuous flow finisher
- Continuous flow grower/finisher combination
- All in all out grower
- All in all out finisher
- All in all out grower/finisher combination

With the above mentioned systems we have seen two main trends;

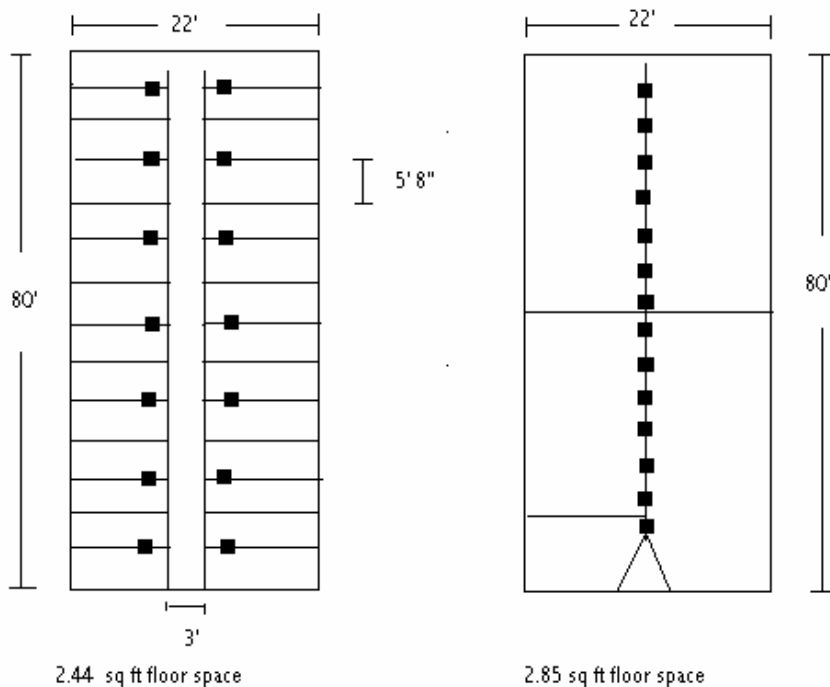
- Totally slatted pens
- Partially slatted pen

In most recent years a lot of interest has been generated regarding growing out pigs in larger groups. In nurseries, these numbers range from 50 to 150 pigs per pen and in grower finisher 50 to 1000 pigs per pen. In the first part of my paper I would like to discuss my personal experience with moving from our traditional 22 pigs per pen to approximately 150 per pen in a nursery barn.

■ Large Pen Design

In our traditional design we were going with 28 pens with approximately 23 pigs per pen (**Figure 1**). The pens were totally slatted with a concrete center walk way. One wet/dry feeder was shared by two pens or approximately 46 pigs for 11.5 pigs per feeding space. The rooms were 24.6m X 6.8m (80' X 22') or approximately 0.24m² (2.5 ft²) per pig of usable space. Pigs were kept approximately 5.5 weeks to an average weight of 23 kg. Ventilation was 4 wall fans. Inlets run the length of the room down the center with the air blowing to the outside walls. Under the inlets is a re-circulation tube. Supplementary heat is provided by a natural gas heater.

Figure 1. Pen design – traditional vs. large pen.



When we decide to change to the large pen concept, the barn had been designed and tendered so we were limited to the changes we could make. We also made it so if the large pen design was a failure we could revert back to the smaller pens size.

The new barn design featured a totally slatted floor. Feeders were spread out the length of the room and placed in the center. The room was divided into 4 larger pens with a small pen put into 1 pen by the door. This could be used for

poor pigs or a sick pen if needed. It can also be used for cutting pigs out or sorting pigs. With this design we would have 100% utilization of all the floor area because there was no cement walkway. The drawback was that the stockperson was always within contact of the pigs.

■ Large Pen Performance

The first pigs were put in the weaner rooms in June of 2001. Right from day one the first pigs shipped out equalled the performance of the other barns. Then after about 6 weeks performance started dropping and we started to see a lot more fallbacks or starve outs. At this stage we could not decide if it was the “new barn blues” or the larger pen concept that was to blame. We were leaning more to the new barn blues as weaning age had dropped to 17 days due to high number of farrowings and large litter size. We decided not to make any changes and ride it out over the next 2 to 4 months. We would then be more certain of the cause of the problem.

Over the next few months performance actually became worse. Growth rate dropped 20% and mortality increased 2%+. Our major observation at this time was that the pigs seemed to be suffering in the first 2.5 weeks. We put down trays and hand fed the pigs three times daily. Over the next 2 months we monitored growth rate and mortality. Performance seemed to improve but not enough.

Next step was to install extra feeders for the first 2 to 3 weeks. In each pen we installed three 4 hole dry feeders. The result was immediate. Growth rate picked up to over 400 grams/day – equal to the other farms. The amount of fallbacks dropped dramatically and mortality is back to approximately 1 to 1.5 %

■ Advantages of Large Group Sizes

Cost

The initial cost will be less. The biggest saving is in partitions with a slight increase in feeder cost. On our 1200 sow barn we saved \$25,000. The savings could have been higher if it had been part of the original design.

Space Utilization

By eliminating some concrete alleyways, the pigs end up with extra available space. The same can be said for eliminating partitions.

Labour

There is a definite savings in labour, especially in washing time. Washing also becomes easier with fewer obstructions from gates and posts. Health check of pigs and feeders becomes easier.

Moving and Mixing

Pigs from larger groups tend to move and load a lot easier. Another major advantage is that you can add or delete pigs from pens with little or no visible signs of fighting or stress.

Crowding

If you end up having to crowd the pigs for a short term due to a peak in production, the larger pens are more forgiving than traditional pens.

■ **Disadvantages of Large Group Sizes**

Handling

It can be harder for some people to catch individual pigs for treatment. Vaccinating or tagging pigs is also more difficult. This can be overcome to some degree by using portable partitions.

Age and Health

The younger the weaning age or the lower your health status, the more problems you will have with larger groups.

■ **Conclusion**

For anybody thinking about larger groups for weaners I would make the following recommendations:

- Add 20% more feeders and waterers
- Have a hospital pen in each room or a separate hospital room.
- An alley could be incorporated but we manage without one.
- Instead of 160 per pen try 80 per pen.
- Keep the recommended square footage as you would in a conventional barn. Do not try and reduce footage per pig.
- If I were to build a new barn I would incorporate the larger group size pens.

On our existing weaner facilities, I would not change them as they are also working very satisfactorily.