



# A Survey of Best Management Practices of Swine Farms Across Canada

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The past three years have been one for the record books. Starting in 2021 widespread dryness seen

throughout western Canada, not seen on this level since 2002, resulted in record high feed costs for many producers. Overall 2021 resulted in a crop that was 40-50 percent of average. As any livestock producer knows, feed costs are always the single biggest factor representing 60-70 percent of the total cost of production. Residual effects of these high grain prices carried throughout 2022 and well into 2023. Grain prices increased significantly with wheat and barley prices close to doubling the values seen in the fall of 2020.

The past three years have experienced inflationary pressures not seen since the 1970s, increasing the financial burden producers have faced over this period. In 2022, for the first time ever many producers achieved an average hog price that exceeded \$200/kg for the entire year. While this is a good news story, the challenge was, at the same time cost of production increased up to \$60/kg for some producers over this same period. Many producers break evens ranged between \$220-240/kg. This change in price relationships meant many producers still struggled with positive margins throughout 2022.

A new year brought a set of new challenges. The positive, a drop in feed cost throughout 2023, between \$25-30/pig in many cases, provided producers optimism of an improved financial position throughout the year. The negative, an unresponsive hog price resulted in positive margins, for less than expected number of weeks throughout the summer, largely remaining negative for a majority of the year. While feed cost garner most of attention and rightly so, we should not lose focus on those things that we

do on-farm on a daily basis to ensure we are optimizing each phase of our farms. Day-to-day activities can be lost in all the noise of everything going on in the barn. Ensuring we are do all the little things right everyday add up to bigger savings than you might think possible?

“ By focusing on 6-8 daily tasks we can effectively improve our returns by \$6-8/hog”

## How are we doing as an industry?

Two projects funded by Swine Innovation Porc and carried out by Prairie Swine Centre (PSC) and Centre de développement du porc du Québec (CDPQ) examined the adoption of best management practices on farms throughout Canada. The first project audited 24 farms across Canada (2018), with a minimum of two farms in each province, consisting of a questionnaire and an on-site visit. The second project focused on a survey (2023) of pork producers, throughout Canada, of various best management practices implemented in their operations.

Each project had good representation of size and type of operations across the industry. Size of operations ranged from 300 to 6,000 sows, while farrow-to-finish and farrow-to-wean

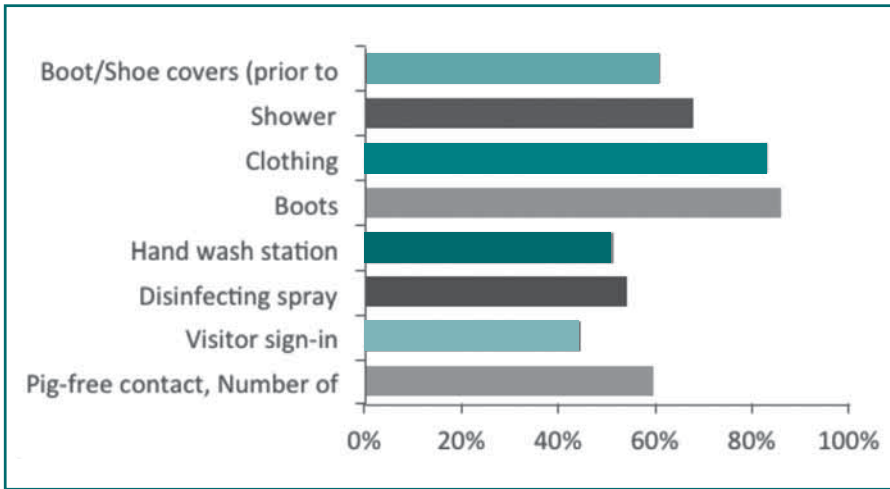


Figure 1. Biosecurity measures implemented on-farm.

operations represented approximately 80% of respondents, with the balance being wean-to-finish operations. Focus of each project was similar. Each focused on best management practices looking at biosecurity/herd health, feed/feeder management, and personal protection, water use/management, in addition to each phase of production (breeding, gestation, farrowing, nursery, and grower-finisher). We analyzed the results from each project, measuring the change in the adoption of best management practices across projects.

### Biosecurity Measures

Overall, the industry seems to be doing a good job at implementing various biosecurity measures in their operations. Individual farms need to calculate their individual risk reward ratio when it comes to biosecurity procedures, as not all farms face the same level of risk. Some things to take into consideration is the disease status of your herd or your neighbours herd, proximity to neighbours, pig density in the surrounding area, diseases circulating in the area (PEDv, PRRS), value of your herd (multiplier), and the ability for you to weather some magnitude of a disease break. These things all change over time, as a result discuss biosecurity measure with your employees, management team, and herd health veterinarian on a regularly scheduled basis to ensure you are doing everything possible to keep your herd healthy as possible.

Biosecurity is often one of those things that we take or granted, that is, until something goes wrong. Like insurance, biosecurity is an integral part of your day-to-day operations, but essential in avoiding a major business interruption. Figure 1 displays the eight common biosecurity steps implemented on farms throughout Canada. You should take the opportunity to speak with your veterinarian, on your next herd health visit, to reassess policies and procedures that are right for your operation.

### Enrichment

Enrichment seems to be one of those things that can be easily over looked. The National Farm Animal Care Council's 2014 update to the Canadian Code of Practice for the Care and Handling of Pigs states that all pigs must have "multiple forms of enrichment that aim to improve the welfare of the animals through the enhancement of their physical and social environments." While implementing enrichment on-farm is simple in nature, the proper selection, installation and maintenance of enrichments can have a positive impact to the bottom line of your operation. The lack of enrichment is known to result in more problematic behaviours such as tail-biting and belly-nosing and there is a need for practical and cost-effective solutions that producers can implement.

Based on information presented in Figure 2 enrichment is an area that require additional attention from producers. As seen in Figure 2, just over 50% and 60% of farms incorporate enrichment into nursery and finisher respectively. According to the Code of Practice for the Care and Handling of Pigs (NFACC, 2014) pigs must be provided with multiple forms of enrichment that aim to improve the welfare of the animals through the enhancement of their physical and social environments. The incorporation of enrichment into individual facilities is unique to each operation. Support tools regarding enrichment materials

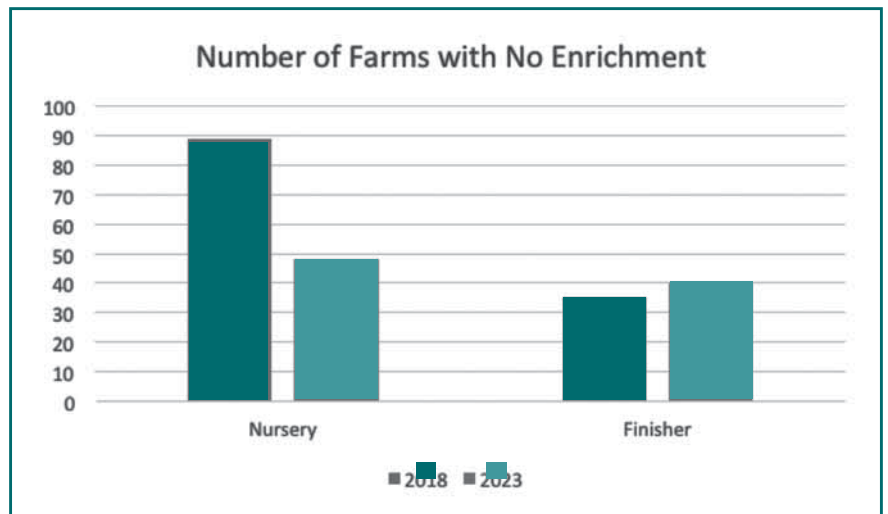


Figure 2. Number of farms surveyed with no enrichment 2018-2023.

are available in Appendix H of the Code, with different types of enrichment grouped into categories along with the advantages and disadvantages of each type.

As outlined in Appendix H (page 54) of the Code of Practice there are six criteria to consider when choosing enrichment for your operation. Considerations could include the follows aspects: SIMPLE, SAFE, SANITARY, SITE, SOFT, & SUSPENDED.

(A Survey of Best Management Practices ... cont'd on page 11)

## Water Use and Management

Among nutrients, water is required in the greatest amount but quite often receives the least attention. Water intake of finisher pigs is approximately two to three times feed intake, depending on body weight and feed intake. However, most 'water intake' reported is in the form of water disappearance from drinkers, including water wastage, rather than water actually consumed by pigs. Previous work has shown finishing pigs can waste 25% of water from well-managed nipple drinkers; therefore, opportunities exist to reduce wastage by adjusting flow rates on a regular basis.

We measured on-farm water flow rates and nipple drinker heights on 24 farms across Canada, representing each phase of production from gestation to finishing. Table 1 outlines water flow parameters showing ranges measured for low, target, high, and very high values. Recommended flow rates should range between 1.0 to 2.0 L/min and 0.5 to 1.0 L/min for farrowing and all other phases of production respectively.

Overall water management within audited farms varies across phase of production (Table 2). Generally, producers do a better job in managing flow rates within Gestation (pens) and Nursery, where approximately 60% of the nipple drinkers measured met the target flow rate. The challenge is in Finishing, where approximately two-thirds of nipple drinkers provide flow rates in excess of pig's requirement, with 11% of nipple drinkers being rated very high (>2.5 L/min). Assuming the cost of manure disposal is \$0.015/gallon, the additional water wastage would cost producers, on average, \$2.20-\$2.60/hog.

**Table 1. Water flow recommendations**

	Low (l/min)	Target (l/min)	High (l/min)	Very High (l/min)
Gilt pen	<0.5	0.5-1.5	1.5-2.5	>2.5
Gestation	<0.5	0.5-1.5	1.5-2.5	>2.5
Farrowing	<1.0	1.0-2.0	2.0-3.0	>3.0
Nursery	<0.5	0.5-1.5	1.5-2.5	>2.5
Finishing	<0.5	0.5-1.5	1.5-2.5	>2.5

**Table 2. Measured water flow rates of selected farms across Canada (%)**

	Low (l/min)	Target (l/min)	High (l/min)	Very High (l/min)
Gilt pen	5.1	33.33	56.4	5.1
Gestation	0	59.4	21.9	18.8
Farrowing	15.3	38.9	29.3	16.6
Nursery	15.2	56.8	19.0	8.9
Finishing	5.4	29.3	54.3	10.9

## Conclusion

Based on the survey results we can see that little changes can make a big impact on the overall profitability of your operation. While most producers are aware of individual best management practices throughout their barns, day-to-day activities and emergencies sometimes get in the way. Currently there seems to be a margin for improvement as we incorporate approximately 50% of measured and surveyed best management practices. I do not think it is possible to complete 100% of tasks 100% of the time, however if we can move that needle incrementally from 50% to 55% then to 60% can save producers substantial dollars over the long run.

