

Pigs

June 2024

Edited by Amy Quinn



Welcome to the June edition of our monthly newsletter.

The “National Pig Herd Performance Report 2023” was released this month. Both the report and the summary infographic are available [here](#) and a copy of both have been posted out to all producers over the past week, with more copies available on request.

Specialised Advisor Gerard McCutcheon provides a brief overview of the “National Pig Herd Performance Report 2023” in this newsletter and discussed the report in detail along with all the latest trends and developments in the latest episode of “The Pig Edge” podcast which you can listen to [here](#).

Gerard is also currently attending the annual InterPIG meeting as well as the Agri Benchmark Global Forum 2024, in Finland. InterPIG, is an international network of experts from 18 countries that gathers together physical and financial data from the past year to a standard

methodology so that the cost of pig production can be compared across a selected group of countries. We look forward to hearing how our national performance compares against our international counterparts.

In this month’s newsletter we also touch on the pressing matter of manure storage and spreading where we provide some practical options to consider. We also look at the timely subject of things to look out for on farm now that the weather is heating up.

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- Too much of a good thing! - Pig manure storage & spreading
- Beat the Heat: Keeping cool this summer

National pig herd performance 2023

Gerard McCutcheon

The 2023 Profit Monitor figures have been analysed and the National Herd Performance Report has been completed. The figures show an improvement on the 2022 figures. The 2023 data set includes 91 herds with an average of 864 sows per herd, which is over 58% of the national sow herd. The number of pigs produced per sow per year increased to 27.9 in 2023. The born alive increased in 2023 to 14.94 born alive per litter and the number of litters per sow per year also increased (to 2.26). Even though the level of mortality increased the number of pigs produced per sow per year rose to 27.9.

Table 1. Sow performance figures:

	2022	2023
Born Alive/ Litter	14.81	14.94
Piglet Mortality %	11.1	11.3
Litters / Sow / Year	2.24	2.26
Weaner Mortality %	3.3	3.4
Finisher Mortality %	3.0	3.2
Pigs Produced/Sow/Year	27.4	27.9

Growth Performance

The growth rate from weaning to sale increased by 21 grams per day in 2023, while the feed conversion decreased to 2.42 as shown in Table 2.

Table 2. Weaning to Sale performance figures:

	2022	2023
Live weight at sale kg	118.4	116.8
ADG Weaning to Sale g	736	757
FCE Weaning to Sale	2.45	2.42

Pig Meat per Sow per Year

The parameter “kg of pig meat per sow per year”

is calculated by multiplying the number of pigs produced per sow per year by the average carcase weight. The second item is the “tonnes of feed /sow /year”. This is calculated by adding the total tonnes of all feed used in the year and dividing it by the average sow herd size. These figures are shown in Table 3.

Table 3. Feed required to produce carcase gain:

	2022	2023
Pig meat/Sow/Year kg	2,482	2,491
Feed/Sow/Year t	8.226	8.809
Feed kg /kg of Carcase	3.56	3.54

In the year 2000 the output of pig meat per sow was 1,471 kg and required 5,385 kg of feed to produce this. This had a requirement of 3.66kg of feed to produce a kg of pig meat. The figures in 2022 and 2023 are significantly better than this and show a definite improvement on this parameter over time.

Conclusion

These figures show that the performance on Irish farms improved in 2023 when compared to 2022. Over time Irish pig production is becoming increasingly efficient. The National Pig Herd Performance Report and infographic for 2023 is available [here](#), has been posted out to most farms and the report is discussed further in “The Pig Edge” podcast episode [here](#). It is well worth looking at to see how the Top 25% and Top 10% of herds are performing and assessing how your unit compares with the average and Top performing herds.

Too much of a good thing!

Michael McKeon

Over the last few months the main topic of conversation for pig groups has concerned pig manure storage and spreading. It has been a difficult year so far, primarily due to the very wet autumn-winter-spring, making ground conditions difficult for spreading. More than ever before pig producers are now re-evaluating the volume of pig manure they are producing and assessing whether they can reduce this volume further or improve existing storage facilities.

This assessment can be broken down into either 'refurbishment of existing buildings' or 'new build' options

1. Refurbishment of existing buildings

- **Feed system** – One of the biggest areas for potential manure reduction is the feed system. Generally in a refurbishment situation a producer is not going to change their overall feed system but you can make significant improvements to the existing system, especially if it's a wet-feed system.

Finishers produce 60-65% of the total manure produced on a pig unit so 'less water-in is less manure-out'. Many pig units have a finisher water:feed ratio of **3.25:1** due to the length of the circuit, number of bends or changes in feed in heights. A ratio reduction to **2.75:1** would reduce manure output per year by **2,436 m³ (536,000 gls)** per annum for an 800 sow

integrated unit. This is 90 less truck loads to have to organise every year! Achieving this reduction will require capital investment which may require; new satellite tanks, extra feed lines for shorter circuits, reorganising existing circuits etc.

Reducing the sow water:feed ratio is a much easier change but will not generate as large a savings in volume. A reduction from **5:1 to 4:1** (dry sows) and **4:1 to 3:1** (lactating sows) would together save **1026m³ (226,000 gls)** per annum per 800 sow farm. If undertaking this reduction it's important to ensure that the sows have good water pressure in the water bowls/drinkers.

- **Overground storage** – If you currently have any uncovered manure storage (over or below ground level) then this should be covered, as up to **33%** of the total storage availability may be taken by rainfall during the winter months. This is obviously when you most require the storage.
- **Existing tanks** – All pig units have 6 months manure storage on paper, however a build-up of solid material at the bottom of tanks may significantly reduce the actual utilisable storage. Any house refurbishment should incorporate a plan to fully empty the solid material from the tanks. This will be a significant cost / logistical problem so will require careful

planning, however if it increases a tank's effective manure storage e.g. 20%, it will be worth the pain!

2. New buildings

If you are building new pig housing then effectively you have a blank canvas. Don't simply copy an existing house design on the unit, see if you can improve upon it. From a manure output perspective the feed system will have the greatest effect on volume.

- **Feed system** – If you are using a wet feed system should you consider changing to a dry fed system in the new unit/house? Research by Moorepark has shown that finisher pigs on wet-dry feeders have a better FCE (2.28 vs 2.42) than wet-fed pigs due to less wastage etc. Aside from the better FCE (worth €3.80/pig), an 800 sow herd with a finisher wet-dry feed system using a water:feed ratio of 2.25: 1 would produce **4,872m³ (1,071,694 gls)** less manure than a wet feed system at 3.25:1. This would be 179 less truck per year to organise!
- **Overground storage** – If you are building extra manure storage to meet BAT regulations then it may be financially advantageous to go for a larger size than required to meet your six month storage requirement. The difference per cubic metre storage between a 1,136 m³ and

1,591m³ tank is relatively small but the extra storage may be very welcome in a wet April!

- **Manure management system** – To minimise/reduce the build-up of solid material in slurry tanks and therefore reduce your storage capacity over time, it is important to carefully plan how manure can be kept in solution / agitated / fully emptied. This is particularly important for units that are home-milling as generally there is a much faster build-up of 'solids' in these tanks.

The design becomes even more critical where new tanks are '*shallow, with frequent emptying*' or where they have a 'solid sealed cover'. In general, tanks with a relatively short distance to sluice / suction points work best. Where tanks with a large area are being considered, then a '*river flow*' or a '*continuous suspension*' system may have to be considered.

In conclusion, if you are considering refurbishing or building from scratch, a little bit of thought on how to minimise your manure production will pay dividends long into the future. Hopefully we won't see as wet a nine months again anytime soon, but if we do hopefully you'll be even better prepared.

Beat the Heat: Keeping cool this summer

Emer McCrum

Although the weather to date in June has proved disappointing with average temperatures below normal for this time of year, current predictions indicate that temperatures in July, August and September will trend above normal. Recent years have brought periods of very warm weather from July through September and now is a good time to ensure you are adequately prepared for sunny days ahead.

Breeding

On hot days it is advisable to start breeding earlier in the day if possible when temperatures are cooler. Heat detection early in the morning will produce a better response compared to later in the day. Sows also exhibit fewer signs of oestrus in warmer temperatures and accurate heat detection therefore may be more difficult on hot days especially for newer members of staff. In addition, boars can become more aggressive in increasing temperatures and easily fatigued which can impact performance.

With timing of AI linked to weaning however it may not be feasible to amend breeding times. If this is the case, allow yourself more time per service to ensure thorough and accurate heat detection. Only bring enough AI doses into the service area to last you one hour in order to avoid exposure of the semen to high temperatures. Work each boar for a maximum of one hour to minimise aggression and maintain libido. Ensure the AI climate box (and vaccination / medication fridge) is located at least 5cm from the wall to

provide sufficient airflow. Use an air compressor to remove any dust and dirt that may have accumulated on the vents.

Water Availability

The availability of fresh, clean drinking water plays a crucial role in regulating body temperature. Pigs will consume more water as temperatures rise so it is important to have cool water available to dissipate heat. Check the water flow rates in all stages throughout the farm to ensure you are not inadvertently restricting intakes. Remember to always check the drinker / nipple furthest from the source in each room to ensure flow rates are evenly distributed across the plumbing network.

Water intake is crucial for the farrowing sow but we must not forget about the pre-farrowing period. Research has shown that water intake averaged 9 litres per day in the lead up to farrowing with intakes as high as 18 litres recorded the day before onset. Ensure sows are drinking plenty of water in this period by offering 'feeds' of water directly in the trough.

Ventilation

Inefficient ventilation is detrimental to pig performance particularly on hot days. Check the temperature sensors in each room to ensure all are clean and positioned correctly especially after power washing. Dust and dirt will accumulate on sensors and produce distorted readings resulting in inefficient ventilation rates.

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Clean air inlets and fan blades regularly as accumulated dust can reduce airflow and increase energy consumption. Double check to make sure the summer ventilation bandwidth is implemented (set at 2⁰c). For natural ventilation, grease curtain and inlet pulleys regularly to optimise functionality. Ensure you have all ventilation systems serviced regularly and don't delay on carrying out any remedial work required.

Nutrition

Negative performance during summer primarily happens due to reduced feed intake. Nutrient dense diets with increased energy levels may partially compensate for reduced feed intake however, adjustments to dietary formulations may not be feasible in all cases.

In wet feed systems, tailoring the feeding schedule around periods when demand is greatest can aid intakes and reduce feed wastage. Actions such as increasing feed allowance during cooler conditions earlier and later in the day while reducing the allowance during the hottest period of the day may help on hot days. In dry feeding scenarios, humidity can cause problems with bridging so be extra vigilant of this when carrying out daily checks. In the farrowing house, both lactation and creep feed will spoil very quickly. Careful monitoring and frequent removal of uneaten feed on hot days will help to maintain intakes.

Handling & Transport

Pigs are much more lethargic and easily fatigued in high temperatures so it is important to be patient,

keep pigs calm and move them slowly. On hot days try to plan animal handling duties as early or late in the day as possible. Tasks such as breeding, weaning, moving pigs and vaccination should be carried out before peak midday temperatures to minimise both animal and handler stress.

Where transport is concerned it is recommended to load finishers early in the morning on hot days to minimise heat stress and the incidence of fatigued animals. Ensure the trailer is set to maximum ventilation and while in transit to minimise the number of stops on-route to the factory. If stops are required park the lorry in a shaded area if possible and minimise idle time.

Personal Care

When working on hot days remember the following points:

- Adjust the work schedule to avoid strenuous activities during the hottest period of the day.
- Remember to drink plenty of cold water and stay hydrated throughout the workday.
- Take shorter breaks more frequently, reduce your caffeine intake and have regular, smaller meals.
- If working outside ensure you apply a thick layer of a broad-spectrum and water-resistant sunscreen to any exposed skin. Wear a wide brimmed hat and sunglasses.
- Wear breathable clothing.

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Pig HealthCheck dashboards survey

The Pig HealthCheck database and dashboards have been in place since the end of 2021 and several components have been added. AHI are asking all pig farmers in Ireland for feedback to improve the Pig HealthCheck online dashboard. Whether you use it frequently or not at all, please consider taking 5 mins to complete their online survey:

<https://www.surveymonkey.com/r/3BH2JXS>



The survey responses will be treated and kept confidentially and anonymously at AHI. The information collected will not identify any of the respondents. AHI will use the feedback from the survey to improve the dashboards to make them more useful for you (the user!).

Biosecurity Code of Practice for Indoor Pigs

The AHI Pig HealthCheck Technical Working Group and Implementation Group have developed a biosecurity code of practice for indoor pigs. The code is a long document, but it has also been summarised into two pages. You can find the document at:

<https://animalhealthireland.ie/assets/uploads/2023/11/PHC Code Of Practice BS 2023 V4 FINAL.pdf?dl=1>

This document is a guideline for best practice, and you can use it as a reference to consult when trying to improve biosecurity in your farm.



NUTRITIVE project



The kick off meeting of the new EU project NUTRITIVE took place on the 17th and 18th of June in Galicia, Spain. The meeting included farmers, local politicians, company representatives and scientists discussing the current challenges and opportunities for manure management. The project has a budget of 7 million and will test around 30 innovations for slurry management at all levels (farm, tank, processing and spreading) including cost-benefit assessments for the different countries. Teagasc staff from the Pig Development and the Rural Economy Departments will be collaborating in this project in a multidisciplinary approach.



For more information:

Please visit our webpage at:
<https://www.teagasc.ie/animals/pigs/>

For any further information on newsletter content please contact the editor, Amy Quinn at: amy.quinn@teagasc.ie or +353 87 3779015