

Pigs

April 2024

Edited by Amy Quinn



Welcome to the April edition of our monthly newsletter. Pig prices continued to improve this month in response to the increase in pigmeat demand.

On the latest “The Pig Edge” podcast episode I talk to Peadar Lawlor, Pig Nutrition Researcher Technician, with the PDD. We discuss the economic benefits of research. This episode will be available on Monday at [Listen here!](#)

The Pig Development Department (PDD) was delighted to meet so many of you at the recent Irish Pig Health Society (IPHS) Symposium in the Curragh Racecourse, Co Kildare. Where we took the opportunity to promote our upcoming Pig Open Day 2024, which will take place on May 22nd in Moorepark Research and Innovation Centre, Fermoy and May 24th in Ballyhaise Agricultural College.

In both locations, we will be guiding you through interactive stations showcasing the results from

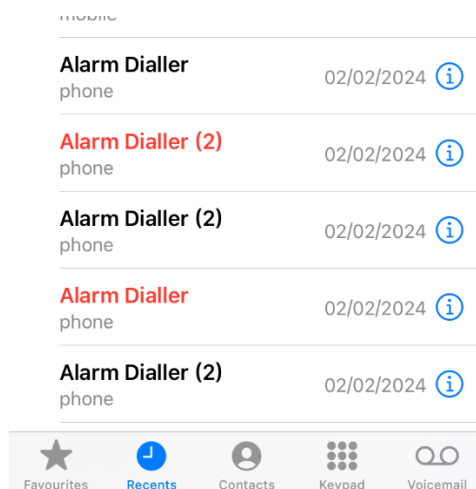
the comprehensive pig research programme, covering; farrowing room management, nutrition, managing pig health, sustainability and an update on the pig research facility and the new feed lab in Moorepark. It will provide attendees the chance to interact with our researchers, advisors and postgraduate students. Lunch will be provided after the event. We look forward to seeing many of you there. Full details on the Open day, including how to register for this event, can be found later in this newsletter.

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- Financial benefit of a good litters per sow per year
- Pig Open Day 2024

Sound the alarm!

Kieran Keane



Recents	
Alarm Dialler phone	02/02/2024 ⓘ
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Favourites Recents Contacts Keypad Voicemail

Sound the alarm

No-one likes to get a phone call in the middle of the night, but it would certainly be worse if no one gets the call. All automatic ventilation and feeding systems should come with some type of alarm output. How this output is delivered to a person can vary – phone call via auto dialler, SMS, email or just a loud siren on farm. The outcome is then dependant on the person who receives the alarm; does the person return to the farm? Can they log in from another computer or phone to check out the alarm and perhaps fix it remotely? or does it just have to wait until morning?

Ventilation

As we draw nearer to what will hopefully be a warm and sunny summer now is a good time to review ventilation alarm protocols on farm. The implications of inadequate ventilation on pig performance can be costly but the implications of ventilation failure, especially in hot conditions, can be catastrophic. As part of the Bord Bia PQAS ventilation alarms should be tested at least once a week. However in practice merely testing that the alarm mechanism itself works may does not guarantee it works well in a real scenario, say a high temperature alarm on warm summers

evening. We need to know that all the following are in place:

- The stat is set to an appropriate temperature to trigger the alarm
- Failsafe of the system works properly
- The alarm dialler is ready and all inputs are enabled (sometimes a troublesome input can be turned off to avoid nuisance alarms – its important these aren't forgotten)
- The correct phone number(s) are in the dialler
- The person it tries to contact hasn't blocked the number or has excluded it from any "do not disturb" function on the phone at night
- The person receiving the alarm is close by and has the means, expertise and knowledge to deal with the alarm

So there are a lot of links in the chain from the system registering a problem to the problem being solved. It's best to test the system fully and regularly rather than realising it doesn't work when it's too late.

Feed systems

All the points above also apply for the testing of a feed system alarm also. However the urgency and

potential risk of casualties is somewhat smaller. That being said having a feed system on alarm or stopped for any period of time will also adversely affect pig performance. The longer time that a feed system is on alarm the lower the volume of feed that it will deliver. Obviously the busier the system and the longer the time, then the greater the impact. The costs associated with having a feed system down for a period of time is proportional to

- the number of animals affected
- the number of feedings missed and the proportion of their daily feed this represents
- the length of time they are affected for
- the ability of the feed system to catch up or compensate

A delay in solving an alarm can result in lower intakes, lower daily gain, reduced FCE, increased stress and aggressive behaviours. Depending on the feed system and how busy it is there comes a length of stoppage where the pigs will not compensate for the feeds they have missed. This will vary based on age and weight of the pigs. Up to this certain point if the feed system has the available time to “catch up” the pigs might still consume the same amount of feed. The ability of the feed system to catch up will depend on how busy the system is, the trough capacity and trough space per pig. For example an alarm on a dry feed system supplying large wet/dry feeders will be less pressing than a short trough adlib fed wet feed system. Each system will have its own in-built urgencies. Each system should be assessed differently on how an alarm for each may be dealt with. It is a good idea to assess and have proper protocols in place.

Remote Access

Remote access apps can be very useful. For feed systems in particular there is the possibility of solving the alarm without the need to return to the farm. If it can't be fixed remotely at least the cause of the alarm is known before someone returns to the farm. There are various types of apps available and some are free depending on frequency of use. However caution is to be advised when remotely operating the system for a few safety reasons:

- Obviously when operating machinery you cannot see or hear, so you may be making a problem such as a blockage worse.
- You could endanger someone trying to fix the problem on site (in which case they should isolate whatever machinery they are working on)
- If you were to get disconnected in the middle of a manual operation you could cause a bigger problem e.g. overflow a tank with water or worse with feed.

So it is important to advise all people who have remote access to a system of these dangers and also to remind everyone else on farm that remote access can restart a system they are working on.

In summary

- Review alarm protocols regularly and test every link in the chain.
- If you already use remote access apps review safety and access, if not consider getting one.
- Try to sort nuisance alarms quickly rather than turning off an output.
- Also track alarm records, as identifying repeated alarms or alarms in a pattern could flag an issue which when solved will result in fewer alarms in the long run.

Financial benefit of a good litters per sow per year

Louise Clarke

In order to minimise production costs and maintain competitiveness, pig farmers use several key performance indicators (KPIs) for sows such as, conception and farrowing rate, born alive, pigs weaned per litter, or amount of pig meat produced per sow per year. Litters per sow per year (LSY) is another important KPI that farmers should benchmark themselves with and try to improve it where needs be.

What is litters/sow/year?

LSY is a calculated figure representing the number of times, on average, the sows in a herd farrow each year. This economically important KPI is an evaluation of the reproductive performance of sows in a herd. Litters per sow per year is determined by the length of pregnancy, length of lactation, weaning to service interval and the number of non-productive or empty days.

What is a reasonable target for litter sow per year?

The maximum LSY that can be achieved for units with a 28-day weaning age is as follows:

$$115 \text{ (gestation)} + 28 \text{ (lactation)} + 6 \text{ (weaning to service)} = 149 \text{ day}$$

$$365 \text{ days} \div 149 \text{ days} = 2.45.$$

However, due to a number of circumstances (eg, increase in empty days, increased lactation period, health problems etc) a good average/target for empty days is 11 days (6+5) which would give you a LSY figure of 2.37 $\{(115+28+11)/365\}$.

What are the cost associated with the difference in litters per sow per year?

If we analyse two 600 sow units; unit A has a LSY figure of 2.28 and unit B has a LSY figure of 2.38. What will be the cost of this difference?

If we assume the average weaned/litter is 12.2 and each unit had a combined post weaning mortality of 4% then:

- **Net alive per litter:** 12.2 weaned – 4% mortality = 11.71 pigs sold per litter
- **Pigs sold / year @ 2.28 litter/sow/yr:**
 $2.28 \times 11.71 \times 600 \text{ sows} = 16,019 \text{ pigs / year sold}$
- **Pigs sold / year @ 2.38 litter/sow/yr:**
 $2.38 \times 11.71 \times 600 \text{ sows} = 16,722 \text{ pigs / year sold}$
- **Difference in pigs sold per year** = 703 pigs

If these missing pigs had been brought to slaughter (88kg dwt. @ €2.24/kg), then this equates to **€138,575** in lost sales revenue on an annualised basis for unit A.

What are the main component involved in achieving a good target?

1. Target a farrowing rate of 90%: factors such as accurate oestrus detection, increasing conception rates, reducing empty days and having component skilled staff will all help to achieve this figure.
2. Reducing weaning to service interval and empty days: weaning age, sow body condition post weaning, parity, feed and water intake during lactation, temperature of farrowing room and feed intake from weaning to first service. Also, early detection of NIPs is critically

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important as a NIP discovered at 80 days is equivalent to 4 regular repeats. Good management and attention to detail on each of these points is critical.

3. Management of the service area: increased boar exposure, good semen storage techniques, good culling policy, excellent gilt management and avoid stress as much as possible.

In conclusion, LSY can have a substantial difference to farm income. However, there are a number of factors that can impact this KPI but careful management and attention to detail on the sow herd performance will pay dividends. For more information on improving your LSY listen to the Pig Edge podcast episode with Pat Varley where he discusses ways to improve LSY. You can access this information using this [link](#).

Pig Open Day 2024

Amy Quinn



The Pig Open Day 2024, our research event, will take place at 10am on May 22nd in the Paddy O’Keeffe Innovation Centre, Moorepark, and 10am May 24th in Ballyhaise Agricultural College. This year we will be building on the success of last year’s event. This will be an ideal opportunity to see first-hand the results of the comprehensive research programme undertaken by Teagasc, and to meet researchers, advisors and postgraduate students.

A brief introductory presentation will be provided that will highlight some new and current research projects that have commenced or projects that are due to commence. This will be followed by visits to a number of interactive stations and boards to showcase the results of our current research

programme. The event will conclude with lunch provided.

The interactive stations will cover the following topics; farrowing room management, nutrition, managing pig health, sustainability and an update on the pig research facility and the new feed lab in Moorepark.

Please register for this event in advance. You can do so by visiting this [link](#), scanning the QR code below, or by contacting niamh.allen@teagasc.ie, 025 42457.



Congratulations Shiv!

At the BSAS British Society of Animal Science annual conference 2024 in Belfast this month, our PhD candidate Shiv Vasa presented the study "Effect of farrowing pen hygiene (standard vs. optimal) and creep feeding regime (dry pelleted starter diet vs. liquid mixture of milk replacer and starter diet) on pig feed intake and growth" and won the BSAS industry prize! Shiv is supervised by Dr. Peadar Lawlor and Prof. Gillian Gardiner, and thanks his supervisors, staff of the PDD and placement students who were involved in this study for the success.

IPHS Symposium 2024



The Irish Pig Health Society (IPHS) Symposium 2024 took place on the 16th of April, with a new format as well as a new venue; The Curragh Racecourse, Co. Kildare. It was great opportunity to meet so many producers and stakeholders in such a spectacular venue.

Teagasc held a national workshop on "Precision livestock farming to promote pig health and welfare" for industry stakeholders on the morning of the symposium and we would like to thank all those who participated in the workshop. Your contributions are greatly appreciated.

Well done Dr. Cullen!

The PDD would like to extend its congratulations to Dr. James Cullen who successfully defended his PhD thesis; "Microbial profiling of liquid feed for pigs and the impact of strategies to optimise feed microbial quality on the feed and pig gut microbiome". James was supervised by Prof Gillian Gardiner (SETU), Dr. Peadar Lawlor (Teagasc) and Dr. Paul Cormican (Teagasc).



Salmonella TASA

Salmonella organisms are a group of bacteria that cause salmonellosis, a disease that can affect both animals and humans. There are many strains (serotypes) of Salmonella that can affect human health but the serious serotypes, Salmonella Typhimurium (ST) and monophasic Salmonella Typhimurium (mST) are the two most commonly associated with the consumption of pig meat and are also the most problematic serotypes on pig farms where they are easily transmitted between pigs and humans and display multiple drug resistance (i.e. they are resistant to at least three and usually more antibiotics). The Salmonella TASA is a Targeted Advisory Service on Animal Health (TASA) focusing on the development of a farm-specific Salmonella Control Plan. As part of the plan, environmental samples will be collected by your veterinary practitioner. To know more about this activity read [here](#).