

Edited by Ciarán Carroll



Happy New Year and welcome to the January edition of our monthly newsletter.

Last year was an unpredictable one, the negative effects of Covid-19 were felt in the pig sector as in other sectors. However, the beginning of a new year is a time to assess and ensure that best practices are in place to benefit your business moving forward. Later in this newsletter we encourage you to revisit your vaccination plan protocol. With level 5 restrictions in place again please know that the Teagasc Pig Development Department is operational and Teagasc advisors are available to discuss any queries or concerns.

We saw the development of more digital media resources from the Pig development Department in 2020 and plan to expand on these in 2021. The Pig Edge Podcast series has been very well received with over 2,000 listens to date and some excellent guest speakers. Our Let's talk pigs webinar series which featured six international experts every second Friday from June to September went very well; we aim to run a similar

series this year. Virtual Pig Week took the place of our annual pig farmers' conference and resulted in some excellent video material including a virtual tour of Moorepark pig research facility. We have also developed infographics and posters focusing on a range of topics, which will continue. Our skills series of videos and factsheets will also continue to be built upon every second week this year.

The PDD would like to thank you for your engagement and are interested in any feedback or comments you may have.

All digital materials mentioned are available [here](#).

#### In this issue

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## Time to revisit your vaccination plan protocol

Louise Clarke

With the threat of multi-drug resistant bugs and a strong focus at present on antibiotic reduction we must be more responsible about our use of antibiotics. Having an active vaccination plan in place for our farm for disease prevention and control must be front and centre for the future of our business.

Active monitoring of the herd performance for sign of disease through quarterly slaughter house checks, on-farm blood serology and stockperson surveillance are important for early warning of disease issues and to check the effectiveness of your current vaccination program. Any changes should be documented and the herd health plan updated and implemented to take account of such signs as needed.

Vaccination is one of the most cost-effective ways to reduce/prevent disease outbreaks within your herd and it provides optimum protection when carried out correctly and in tandem with good biosecurity procedures. As vaccines can account for a large proportion of the medication budget on a pig farm it is imperative that both owners and their staff understand the program (dosages, timings etc) and follow the right guidelines in terms of storage and administration to gain the maximum benefit from their vaccination plan.

### How vaccines work?

Vaccines contain antigens (toxins) from viruses, bacteria, bacterial toxins, or parasites. They are given to pigs to stimulate an immune response which will produce antibodies to protect the pigs later against infection with that particular disease.

All vaccines contain instructions how to prepare them for vaccination so check each vaccine datasheet for instructions, as they are not all the same, e.g. intramuscular, sub-cutaneous etc. Make sure if there are new staff members on your unit that they have been properly trained on how to vaccinate correctly. Also when we do jobs on a routine basis it is easy to become complacent on the small things, therefore it may be beneficial for

some units to organise a training session with their vet and vaccine supplier.

### The management of vaccines:

- Do not expose to sunlight
- Store in a fridge. The majority of vaccines require refrigeration between 2° to 8° C however always check manufacturing label for correct temperature storage guidelines
- Monitor the temperature of the fridge daily with a max/min thermometer
- Do not freeze vaccines
- Don't overstock the fridge
- Don't store food in the fridge
- All vaccines to stand outside the fridge to reach room temperature before use (1.5 hours max)
- Vaccines should not be stored from week to week; once opened a vaccine should be used within 8 hours
- Shake well before use
- Always check the expiry date
- Before beginning always estimate the volume of vaccine you will use for a pen/house. At the end confirm the correct amount was actually used.
- Always vaccinate as part of a team and change roles frequently within the vaccinating team

### Needle management:

- Always use appropriate needle size for each animal (table below) and follow the correct route of injection.
- Use a 40-50mm (1.5-2 in) needle for vaccinating sows, gilts and boars intramuscularly.
- Use a 25mm (1 in) needle for vaccinating sows, gilts and boars subcutaneously.
- Use only sterile needles and syringes
- Ideally use a fresh needle for each pig but change at least every 5 pigs.
- To determine how often to change check the ease of penetration into the tissues.

- Always change the needle if it becomes blunt, damaged or falls on the floor.
- Pay particular attention to the angle at which intramuscular vaccines are administered. If the needle is not at the correct angle often vaccine ends up subcutaneous meaning the vaccine is deposited into the fat area which can affect vaccine uptake and efficiency.
- Dispose of needles in a sharps box.
- Clean out syringes immediately after use.

**Table 1** Choosing the correct needle for injections

	Intramuscular		
	Gauge	Length mm	Length inches
Piglet	18-20	13-16	0.5
Weaner	16-18	16-19	0.75
Finisher	16	25	1
Adult	14-16	25-38	1.5
	Subcutaneous		
Weaner	16-18	13	0.5
Finisher	16	19	0.75
Adult	14-16	25	1

Needle-free injection have become popular in recent years and these systems have many advantages; time saving, hygienic, the elimination of broken needles or damage to the carcass, a more constant delivery of vaccines and drugs and decreased worker safety risk. If you are using a needle free injection make sure you follow the guidelines. Proper cleaning, maintenance and storage of all equipment used for administering injections will ensure the correct dose is given to each pig and that contamination of a product is prevented.

### Safety first!!



Always take care when working with animals. Avoid injecting yourself accidentally and especially with an oil based vaccine. If this happens, seek immediate medical attention from a doctor or hospital casualty department taking the bottle and datasheet leaflet with you.

## A focus on stock boars

Emer McCrum

Despite exclusive use of AI across commercial pig units in this country, the stock boar remains central to both the successful breeding of gilts and the rebreeding of sows. Simply put, the boar is an essential part of any breeding programme. With that in mind, optimum management of these animals is paramount to the smooth running of any dry sow house. While the stock boar may not often feature at the forefront of many discussions around reproduction, a few simple practices will ensure the health, welfare, performance and longevity of this essential farm hand.

### General management

The recommended boar to sow ratio is one per 200 sows at a minimum with an annual boar replacement rate of 30-40%. Any boar used for

oestrus stimulation or heat detection should be at least 11 months old as the serous cells in the sub maxillary glands which produce vitally important pheromones do not mature until the boar is at least nine months of age. 10-15% of all boars will have a low libido and will be unable to stimulate females properly so it is important that new boars in particular are monitored to ensure they are engaging or 'chatting' with females.

Boars should be maintained in a healthy, active condition and fed to keep fit, not fat. 2-2.5kg of a good quality dry sow ration is sufficient and it is recommended to feed the boar at least one hour before he is worked or put feeding off until the animal returns to the pen. Boars should be vaccinated in line with the herd health plan,

treated every 6 months using a broad-spectrum dewormer and treated for mange if necessary. Boars must be housed in pens with an unobstructed floor area of at least 6m<sup>2</sup> (65 ft<sup>2</sup>) with visual access to other pigs. It is recommended to house unfamiliar boars in separate pens. Where floors are slatted, consider providing a solid/rubber covering in the lying area.

### Additional notes

The primary role of the stock boar is heat checking and it is essential that new boars are properly trained for heat detection to ensure efficiency and accuracy. Young boars should be gently handled, carefully trained and housed in close proximity to cycling gilts or weaned sows. Select replacement boars with docility in mind as a good teaser boar should work comfortably alongside the stock person. Intact boars should be mated every two weeks to prevent the boars losing interest in females, sustain a strong concentration of pheromones and to maintain libido. Aim to have good quality, active and smelly boars on farm exhibiting strong salivation in optimum condition.

When heat checking, it's not recommended to work the boar for any longer than one hour. Boars have a limit; their ability to detect heat and the stimulating effect on the sow will decline after 20-30 minutes. Regularly resting the boar is necessary to maintain pheromone secretion and interest in seeking the sow. For this reason it is important to ensure you have a sufficient number of stock boars to perform both boar exposure and heat detection. It is a good idea to start detecting potential returns in served sows with a fresh boar before moving to weaned sows as although the boar may be getting tired, these heats are easier to detect. Overworking the boar however will reduce success rates and impinge upon the animal's lifetime performance.

### Vasectomised boars

There are a number of advantages to using a vasectomised or 'V boar' with gilt stock. V boars allow for the recommended full physical contact with gilts and do not have to be supervised when let into gilt pens which in turn frees up time for other tasks. Research has also shown that gilts mated with a V boar on the 1st heat and served on her 2nd/3rd heat will have a 6% improvement in farrowing rate and an increase of 1.2 pigs born alive. Regular mating of the V boar also ensures a strong concentration of pheromones.

### Safety around the boar

While most boars are well trained for regular heat detection and are comfortable working alongside stock people, it is important to always remember that intact mature male animals can be unpredictable and care should be exercised at all times. As boars are regularly walked through the dry sow house alongside stock people, aggressive animals should be culled with health and safety in mind. Never enter an unoccupied boar pen and always move boars to the site of heat detection or oestrus stimulation using a driving board. When handling the boar ensure you have an escape route planned and never turn your back on the animal.

### Identification

In order to strengthen traceability and ensure accurate labelling of Irish pigmeat, all boars that contribute to pig production in Ireland must be tagged under the IFA DNA Certified programme. If you need to order replacement tags, you can do so by completing the form available at this link <https://www.ifa.ie/wp-content/uploads/2020/10/DNA-Replacement-Tag-Form.pdf>



## Review of Strategy 2015 – 2020

The Pig Development Department has carried out a Review of the strategy 2015 - 2020 which is available in full [here](#).

**Research Impacts & Highlights**  
**Strategy 2015 - 2020**  
 Teagasc Pig Development Department

- Using pelleted feed is worth €20/tonne more than meal
- Pelleted wet-dry systems maximize FCR  
Wet-feed maximizes intake & growth
- Maize can be used in diets up to 30%
- GM pig feed is safe
- Described the baseline for % of herds with APP, PRRS, Mhyo, Flu & quantified their effect on productive & economic performance
- Pig antibiotic usage is lower than previously assumed, at 35% vs 66%
- Quantified the economic impact for farmers of antimicrobial reduction, respiratory disease & different adaptations to regulation
- A significant part of the feed cost difference between Ireland & other countries is due to feed credit
- Improving welfare, through use of free lactation crates & keeping litters intact, improved growth performance
- Wood does not cause gum splinters & is safe to use as an enrichment material
- Annual Pig research Dissemination day
- Opening of new Pig Research Facility

For more information visit [www.teagasc.ie/animals/pigs](http://www.teagasc.ie/animals/pigs)

This document reviews the initiatives carried out over the last 5 years. Teagasc Pig Development Department, along with pig producers around the country have developed new initiatives including discussion groups, research dissemination days, new courses, the LEAN programme, and due to COVID19, have focused on developing podcasts,

webinars, videos, and other online materials. We have also completed research projects in a wide range of areas including sow nutrition and management, wet feeding systems, antimicrobial use, control of respiratory disease, tail biting, and economic modelling.

## Zoom meeting discussion groups

Discussion groups may be facilitated over Zoom while Covid restrictions stay in place. This poster explains how to join a Zoom meeting using your smartphone.

HOW TO JOIN A  
**Zoom**  
 MEETING  
 ON YOUR SMARTPHONE

- 1 GO TO THE APP STORE OR GOOGLE PLAY STORE
- 2 SEARCH FOR ZOOM
- 3 DOWNLOAD TO YOUR SMARTPHONE
- 4 CLICK JOIN MEETING
- 5 ENTER MEETING ID PROVIDED BY THE HOST
- 6 CLICK JOIN MEETING

NEED MORE HELP?  
[Orla.Kinane@teagasc.ie](mailto:Orla.Kinane@teagasc.ie)

More information for [iphone](#) and [android](#)

**For more information visit our website**

**[www.teagasc.ie/animals/pigs](http://www.teagasc.ie/animals/pigs)**

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