

Edited by Ciarán Carroll



Welcome to the March edition of our monthly newsletter.

The domestic market has benefited from increased retail demand due to foodservice closures and reduced importing pigmeat. The Chinese market has steadied and given recent reports on further culling there due to African Swine Fever exports will continue to remain strong. The demand in Ireland and from international markets means we should see the Irish pig price continue to rise.

The next episode of the pig edge podcast will be available next Wednesday, 31<sup>st</sup> March. Host Ciarán

Carroll will be joined by Keelin O'Driscoll to discuss Cross Fostering and the Use of Nurse Sow strategies. Catch up on all episodes to date [here](#).

Thank you for your participation in the antibiotic use survey highlighted in our last newsletter. If you have not yet completed the survey you will find details later in this newsletter.

#### In this issue

- Optimising creep feeding
- Mixed up about mixing
- Rectal Prolapse – Causes and Cures

## Optimising Creep Feeding

Peadar Lawlor

I for one can't wait to see the back of COVID and all that goes with it. However, if there is one silver-lining, it is that some excellent podcasts and webinars have been produced by different groups over the past number of months. One such was from EW Nutrition on "Feeding the suckling pig: creep feeding" from February 25<sup>th</sup> last. In this Webinar Dr. Mike Tokach from Kansas state University (KSU) looked at how to optimise creep feeding.

Below are some of the main points that I took from Mike's presentation:

### 1. A suckling pig has the potential to grow at 400-500g/day

This has been achieved with artificially reared piglets. However, in commercial production if we are lucky enough to wean pigs weighing over 8kg the growth rate of these piglets is 240-270g/day. There is an opportunity for us to increase this significantly by providing supplementary feed (creep feed) to suckling pigs. Liquid feeding piglets provides the greatest potential for increasing dry matter intake and hence increasing growth. However, there are still issues regarding cost of such diets and their delivery. This was interesting to hear since we started two projects [PigNutristrat (DAFM funded) and MonoGutHealth (EU funded)] in Moorepark this year. They will look at liquid feed delivery to suckling piglets to increase weaning weight and post-weaning piglet growth and survivability.

### 2. Creep feeding is of little or no benefit to the sow

Creep feeding does not reduce sow weight loss during lactation. Neither does it reduce days to service. This is not surprising really since creep

feed intake is such a very small percentage of the energy intake of sows or energy supply to the litter during lactation. The benefit rests alone with the suckling pig. Here every 1 kg of creep feed consumed by the litter will increase the litter weaning weight by 2Kg. Therefore, it is certainly worth promoting increased creep feed intake in suckling piglets.

### 3. When should you start providing creep feed?

There is little benefit to creep feeding if weaning is at less than 25 days. Additionally, 60-80% of the creep feed consumed by a litter of pigs is consumed in the last week prior to weaning. Interestingly enough not all piglets in the litter are 'eaters' but a greater proportion of small piglets than heavy piglets become 'eaters'. These 'eaters' have less fall-back after weaning. I am still convinced that the Teagasc recommendation to commence creep feeding ~10 days is correct to maximise the number of eaters and creep feed intake per litter.

### 4. How should you present creep feed?

In Ireland we typically use small round open feeders to feed creep to suckling litters. Increasing feeder space allowance will help increase creep feed consumption. With the huge increase in litter-size we've experienced in Ireland in recent years providing two instead of one round feeder per litter will likely benefit intake and gain. Some of the work from KSU showed that feed disappearance was 2.7 times higher when round feeders with a hopper were used compared to 'open' round feeders. Despite this, it seems that the feed intake of litters using the round feeders with a hopper was closer to the actual feed intake of the litter. It seems that 'open' round feeders

were much more wasteful and hence the higher feed disappearance associated with them. Mike recommended using the round feeders with hoppers to prevent feed wastage. He also recommended placing the creep feeder up near the sow's head rather than in the middle or bottom of the pen. This results in significantly increased feed intake which results in heavier weaning weights.

There is also growing evidence that pellet diameter can influence creep feed intake. Surprisingly, it is much larger pellets (10-12mm) which result in increased creep feed intake and post-weaning growth than the small pellets (<2mm), that we are more used to. This is certainly something worth exploring.

#### 5. Does it matter what type of diet you use to creep feed your pigs?

The simple answer to this question is a resounding YES. A high density, high milk product diet (starter diet) should be used to creep feed piglets and this same diet should also be fed to these pigs in the immediate period following weaning. This will promote good creep feed intake in the farrowing room, increase the proportion of creep feed 'eaters' in each litter and subsequently increase post-weaning growth performance.

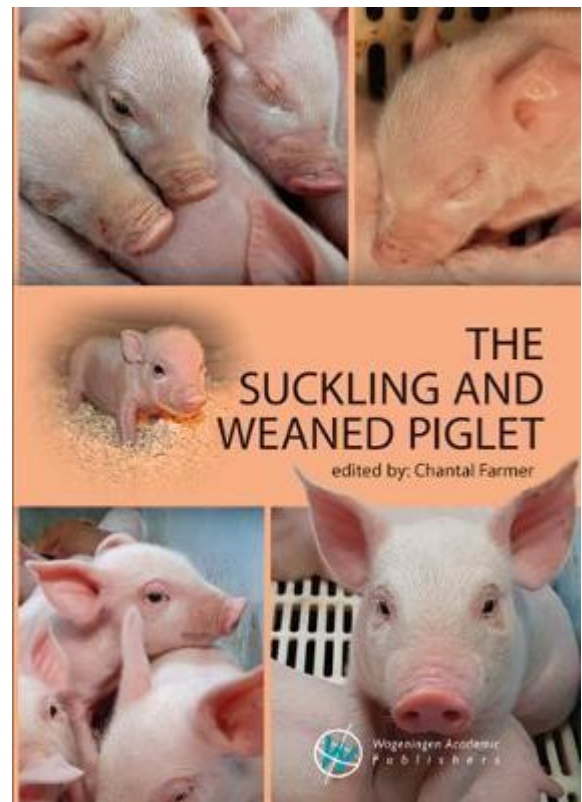
#### 6. Should the creep feed contain a flavour?

Adding a flavouring agent to creep feed did not increase the creep feed intake of the litter or increase the proportion of eaters within a litter. It is evident that there is huge potential to increase growth in suckling pigs by increasing dry matter

intake of piglets prior to weaning. We will explore the benefits of milk and liquid feeding of suckling piglets in Moorepark over the next few years, with this aim. If dry feeding creep this should commence at 10 days of age, creep should be fed from round feeders with hoppers as opposed to round 'open' feeders, larger pellet sizes (10-12mm) should be considered and the diet should be of high density containing a high proportion of milk products. Following these recommendations will increase creep feed intake, the proportion of 'eaters', weaning weight and post-weaning growth performance.

The content of this webinar comes from the book 'The suckling and weaned piglet' edited by Chantal Farmer

[https://www.wageningenacademic.com/doi/abs/10.3920/978-90-8686-894-0\\_5](https://www.wageningenacademic.com/doi/abs/10.3920/978-90-8686-894-0_5)



## Mixed up about mixing

Michael Mc Keon

We all know that mixing pens of pigs is not a good idea and should be avoided due to the associated fighting after mixing to establish hierarchy/pecking order. However some people don't realise that reducing/'splitting' a pen of pigs has the same effect - fighting and reduced growth rate. Any pig removed from a pen will cause the remaining pigs to fight to establish a new pecking order. There are two common incidences when 'splitting' a pen occurs; at transfer to finisher house & prior to sale

### 1. Transfer to Finisher House

Many pig units will house their weaners in large group sizes and then split/reduce the group size when transferring into finisher e.g. pen of 60 weaners divided into 2 X 30 finishers. Any pen

mixing as discussed is not ideal but the older the pigs at mixing the worse the effects as they will fight for longer with increased risk of injury. Also the older the pig the higher their daily feed intake, which will be burnt-up by the increased stress and fighting activity, thereby having a larger adverse effect on FCE. A pig mixed at weaning may have a feed intake of 250-280g/day but a 40kg weaner on entry into finisher will be closer to 2kg per day. On this basis, if it's 48 hours before the pen settles-down after mixing then the waste of feed will be 4kgs for finishers verses 0.5kg at weaning. A recent Moorepark trial showed the effect of mixing & not-mixing pigs on entry into finisher.

**Table1. Effect of mixing and space allowance on performance**

Trait	Space Allowance <sup>2</sup>			
	0.96 m <sup>2</sup> /pig		0.78 m <sup>2</sup> /pig	
	Mixed	Non-Mixed	Mixed	Non-Mixed
BW, kg, 21 wk	102.1 <sup>b</sup>	106.4 <sup>ab</sup>	101.7 <sup>b</sup>	108.2 <sup>a</sup>
ADG, g	983.0	1034.1	955.4	1052.3
ADFI, g	2150.3	2222.3	2125.6	2257.1
FCR	2.18	2.12	2.19	2.11

This trial shows that when pigs were unmixed on-entry (same group as in weaner stage) they had a better ADG and FCE. It also interestingly showed that when they were mixed on entry the ADG of pigs with a greater space allowance (0.96) only fell by 50g/day compared to 100g/day for those with less space. This indicates that if pigs are mixed then the larger the space allowance per pig the less effect on growth rate. If pens on your unit must be 'split' (not ideal) can you do it on entry into 2<sup>nd</sup> stage weaners rather than finishers to minimise the adverse effect on performance and injury?

### 2. Prior to Sale

The other area that 'splitting' of pens occur is prior to sale when the heaviest/'Tops' are taken from the pen to minimise the number of overweight pigs at sale. As discussed each time you remove a

pig the remaining pigs must re-establish the pecking order again. Each time this occurs it will probably cost a minimum of one days feed intake of approximately 2.8-3kgs. On some pig units 'Tops' are taken from a pen on two different weeks before sale which results in a waste of 6kgs of feed for the remaining pigs and an increased risk of injury/tail biting. In addition if 'Tops' are removed just a week before sale the remaining pigs only get the benefit from greater space allowance and feeder access for 6 days. Whereas if 'Tops' are removed 3 weeks prior to sale then the remaining pigs get 20 days of benefit. Research by John Deen a number of years ago, illustrated this problem very well. In this trial it compared pen performance when some 'Tops' were removed prior to sale; at 20 days (d0) & 10 days (d10).

**Table 2. Effect on Performance from the sale of ‘Tops’**

Pigs/pen	25	25	25	25	25
Removed on d 0	0	2	2	2	2
Removed on d 10	0	0	2	4	6
Space/pig (m <sup>2</sup> )	0.67	0.72	0.80	0.88	0.98
Total pen gain (kg)	458.1	465.8	459.0	445.9	442.3
Total pen feed (kg)	1,320.0	1,261.0	1,250.6	1,226.1	1,168.0
Total wt marketed (kg)	3,127.6	3,139.3	3,123.5	3,123.9	3,122.6
Marginal average daily gain (kg)	0.92	1.01	1.04	1.06	1.11
Marginal average daily feed intake (kg)	2.64	2.74	2.84	2.92	2.92
Marginal Feed:Gain ratio	2.88	2.71	2.73	2.75	2.64
Feed savings per pig placed					
kg/pen	-	59.0	69.4	93.9	152.0
kg/pig	-	2.4	2.8	3.8	6.1

In the first column no ‘Tops’ were removed, in the 2<sup>nd</sup> column 2 were removed at day 20 pre-sale and none after that. In the 3<sup>rd</sup>-5<sup>th</sup> column ‘Tops’ were removed at day 20 and day 10. The trial shows that the highest performance for the whole pen was when ‘Tops’ were removed just once at 3 weeks (20 days) prior to sale. If you are selecting ‘Tops’ on your pig unit then ‘do it once & do it right’ at 3 weeks pre-sale.

In conclusion, mixing pigs, whether in batches together or ‘splitting’ pens, will affect your pig unit’s performance and may increase injury, therefore it should be avoided. If it must be done then do it as early as possible and when selling ‘Tops’ only do it once per pen.

## Rectal Prolapse – Causes and Cures

Ciarán Carroll

I’ve seen a number of incidences of rectal prolapses on farms lately. The size of prolapse can vary. If small enough it will often revert into the rectum. However, in most cases it remains out, becomes swollen and fills with fluid. This can lead to other problems, e.g. haemorrhage, cannibalism by other pigs, swollen abdomen and even death. Prolapses can occur at any age but most commonly occur in pigs aged 8 to 20 weeks, more often in males. While they can be caused by a number of different factors which makes it difficult to pinpoint the exact cause, the basic cause is an increase in abdominal pressure which forces the rectum to the exterior and a swelling of the mucous lining and then straining. They are painful for the pig and can result in reduced performance, increased risk of infection and rectal stricture, increased mortality and are associated with increased treatment costs and time investment. Identifying and eliminating the causes can significantly reduce losses on a unit.

### Possible Causes

- Diarrhoea: causing excessive straining. Also, the acidic nature of diarrhoea can inflame the rectum, increasing risk of rectal prolapse (e.g. often associated with Salmonella and Swine Dysentery)
- Respiratory infection: excessive coughing increases abdominal pressure
- Colitis: abnormal fermentation in the large bowel with the production of excessive gas increasing abdominal pressure
- Cold weather: associated with low house temperatures and the tendency of pigs to huddle together, thus increasing abdominal pressure
- Wet conditions and slippery floors
- Overstocking: overstocked pens where pigs cannot lie out properly; pigs stepping on one another can cause muscle damage resulting in rectal prolapse.



- Constipation: due to rectal swelling and straining; can also be a result of water shortage.
- Mycotoxins in feed: can result in rectal swelling and straining. Examine feed/ingredients and feed bins for signs of mould. Clean out bins regularly and use a mould inhibitor in the diet.
- Nutrition: sudden diet changes can rapidly increase pressure in the rectum resulting in prolapse. Low fibre levels, high lysine levels and severe shortages of water are associated with rectal prolapses.
- Birthweight: piglets of less than 1kg are more prone to rectal prolapse in later life due to reduced levels of muscle fibres at birth followed by period of rapid growth.
- Medication – high levels of antimicrobial medication in the diet
- Tail docking/biting: physical damage or infection can damage pelvic nerves leading to a relaxation of the anal sphincter, resulting in rectal prolapse.

### Treatment

Rapid identification and treatment is key to the successful treatment of rectal prolapses. Identify early and remove severely affected pigs to a recovery pen. Ideally the pig should be housed individually rather than in a group recovery pen, to avoid further damage. Carefully inspect the pig on a daily basis to monitor recovery and re-evaluate the treatment options if necessary.

In very few cases a small prolapse can repair itself, whereby it will spontaneously go back into the rectum unaided. If there is no tissue damage manual replacement may be successful. Replace the prolapse and retain it by a purse string or mattress suture. Where the prolapse has been bitten off by pen mates the pig can usually be left in the pen as most will progress to slaughter. Where necessary treat with an antimicrobial to prevent infection (contact your vet for advice re: suturing and antimicrobial treatment options). However, once damage to the rectal tissue occurs the chance of recovery is dramatically reduced as the vast majority will result in complications such as infection and rectal stricture; therefore, euthanasia is the more humane option.

### Records

It is worth keeping records on each prolapse to see if any common factors emerge, e.g. age of pig, weight of pig, number of days in the house, house and pen type, diet fed, change of diet, stocking density, tail biting evident, state of prolapse.

### Survey on Antibiotic Use



### SURVEY ON ANTIBIOTIC USE



We are looking for your views, as an Irish farmer, on the use of antibiotics in farming.

The survey is being carried out by Queen's University Belfast and it is important that we hear the views and opinions of farmers like you.

The survey can be completed online at the following link

<https://www.surveymonkey.com/r/6PSF5PT>

Or if you prefer, we can ring you and do the survey on the telephone, or post out a copy for you to complete at home.

You can get in touch with us on +44 (0)28 9097 4951 or +353-91-845248 or email [c.mckernan@qub.ac.uk](mailto:c.mckernan@qub.ac.uk)

The survey takes 20 minutes and the first 50 pig farmers in Ireland to complete the survey will each receive a €20 One4All voucher as a thank you for your time.



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

This newsletter was edited by Ciarán Carroll  
Teagasc, Moorepark, Fermoy, Co. Cork.

For more information on any of the content  
contact Ciarán at [ciaran.carroll@teagasc.ie](mailto:ciaran.carroll@teagasc.ie)