A newsletter for **pork producers**



PigBytes

Issue 38 July 2018

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Saving a few cents here and there converts to dollars

Sara Willis and John Riley

The average Queensland pig producer has been losing money on every slaughter pig put on the truck since early 2017. The situation is a result of a low pig meat price due to supply exceeding demand and high feed costs.

The cost of purchased feed in Queensland is in the order of \$500/tonne, higher than in the other states. The lack of rain in May, June and July is limiting the planting of winter crop and the outlook for intensive livestock producers is bleak.

Most if not all Queensland producers will be struggling financially and many will be questioning their future in the industry.

At what is a difficult time for producers, it is essential that they share their concerns with family, bankers, accountants and suppliers to ensure that problems are shared and survival plans are continually under review?

To try and reduce the pressure on the business, operators should concentrate their efforts on the areas over which they have control such as maximising market returns and reducing wastage of feed, medications and energy.

Maximising market returns

Time spent ensuring that every pig leaving the shed returns the maximum price available is time well spent, particularly when pig price is low. The scatter graph in Figure 1 illustrates the penalties that can be incurred by pigs failing to meet the buyer's price grid.

Figure 1: Pig producer's scattergram.



To make your own scattergram:

- Confirm the upper and lower limits for P2(mm) and dressed carcass weight (kg) for each buyer
- 2. Mark on the vertical axis the range for P2 and draw horizontal lines on upper and lower limits
- Mark on the horizontal axis the range for hot dressed weight and extend vertical lines on the upper and lower limits
- 4. Mark the area of prime price for weight and P2...
- 5. From your kill sheets plot the points for your pigs which relate P2 to hot dressed weight; and see how your pigs fit for maximum price and minimum penalty. Aim for the top right hand corner. Complete for each buyer.

Changing slaughter weight

Any change in average slaughter weight will have an effect on non-feed costs. Reducing slaughter weight by moving from bacon to pork will increase the non-feed costs/kg sold. When the cost of feed is high and pig meat returns are low as at present the differential between the price of pork and bacon is lower than when the price of pig meat is higher and feed costs are lower (Table 1).

Table 1: Ro	elationship	between	pork	and	bacon	price
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Feed price (\$/kg)	0.45 *	0.38 *
Pig meat price (\$/kg)	2.60	3.20
FCR in final period	3.0	3.0
Bacon DW (kg)	85	85
Price required for 60 kg pig (\$/kg)	3.05	4.00

*Cost of a basic finisher feed

If there is no reduction in non-feed costs, the price needed for the lighter pig will increase. If the nonfeed costs for the 85 kg pig are \$1.20/kg then the non-feed costs incurred by the lighter pig are in the order of \$1.70/kg.

Before making any changes in marketing policy the full effect of non-feed costs need to be considered in detail.

Identify slow growing pigs

On many units slow growing pigs get lost in the system as a result of management practices such as re-grouping and mixing with younger pigs. Slow growing pigs need to be identified and marketed as soon as they reach an acceptable weight and not allowed to become a drain on resources.

Cull non-productive breeding stock

Identify non-productive breeding stock and remove them from the herd as soon as possible. Feed a maintenance diet between the time these stock are identified for culling and removal from the unit.

Reduce feeding costs

There is no easy answer to this statement. Each situation will be different and require different approaches. It is important to realise that the feed cost component of producing pigmeat is not just simply a reflection of the cost/tonne of feed. It is the product of the cost/tonne and the herd feed conversion ratio (Table 2). Table 2: The feed cost component for producing pigmeat.

Feed cost (\$/tonne)	Herd FCR	Feed cost/kg (\$/kg DW)
500	4.0	2.00
500	3.6	1.80
450	4.0	1.80
450	3.6	1.62

Taking this into account, there are many factors which influence feed cost/tonne and herd feed conversion ratio. Table 3 shows some of the more important.

Table 3: Factors which contribute to feeding costs.

Herd feed conversion ratio factors	Feed cost/tonne factors
Feed wastage	Diet specifications
Growth rates	Ingredient costs
Feed quality	Number of diets
Production volumes	Inclusion of additives
Carcass weight and quality	Strategic purchasing

Reduce feed wastage

In practical terms a bacon pig only has to spill 80g/day over its lifetime or the equivalent of 1 teaspoonful of feed an hour to account for a 4% difference in feed wastage or \$5/pig.

While it is impossible to eliminate feed wastage, this is an area for improvement for most farms. The cost of feed wastage increases as grain price increases.

Physical wastage includes the obvious example of feed spillage out of feeders onto the floor but also losses due to poor feeder adjustment/design, feed form and feeding management. There are also losses due to overfilling feeders, feed spoilage, rodents and wastage associated with grinding and processing.

Physiological wastage involves no physical loss of feed but rather inefficiencies in feed utilisation due to the impact of temperature, ventilation, flooring and stocking density on the maintenance requirement and also challenges to the Immune system.

Fine tune diet specifications

Now is the time to review diet specifications with your feed company or nutritionist to ensure diets match the requirements of the genotype/sex and weight of the pig being fed? When reviewing diet specifications it is important to know what specifications are creating the major cost pressures and the effect of relaxing these specifications on performance.

Re-formulate regularly

• While many producers re-formulate diets regularly to take advantage of changing market conditions, there are others that maintain a fixed diet for months or even years.

• Diets should be reformulated with changing market conditions (price & supply of grain), when ingredients change (protein, energy) or a new batch or new ingredient is introduced. Reformulation is needed to ensure specifications are maintained for optimal cost.

Examine ingredient costs and constraints

• Critically review every feed ingredient being used. Are they the best ingredients for the job? Are there alternative ingredients that could be considered? Is the range of ingredients too restricted?

• Examine the effect of limiting the inclusion of certain ingredients and the effect of forcing ingredients into the diet.

• Are diets rounded to bag or ½ bag sizes? What is the effect of relaxing this constraint?

• Is there opportunity to buy larger quantities with other producers?

Review diets mixed on farm

• Creep and starter diets require specialised and expensive ingredients. Consider the cost of purchasing and storing milk powders, additives, the cost of ingredient wastage and quality control considerations such as order of mixing. Can you manufacture these diets cheaper than you can buy them?

• Be realistic about the cost of milling and mixing diets on farm.

Review quality control procedures

If you are home mixing you are responsible for your own quality control and it is an essential part of successful feed manufacture.

Consider the following key areas:

• Does the nutrient content of ingredients used to formulate the diet match the nutrient levels of the ingredients being used?

- Is feed milling and mixing accurate? Is the feed mixed for the required length of time?
- Are the scales used for measuring expensive micro and macro ingredients regularly calibrated?
- Are you achieving the desired particle size? A large particle size leads to poor performance, while too small particle size increases feed manufacturing costs and may result in ulcers.
- Is the proportion of ingredients specified in the formulation the same as that actually being mixed. Are ingredients weighed accurately?
- Is there feed separation in silos and feed trucks?
- Are silos managed well (stale feed, water damage from condensation)?

Review all diet formulations for additives

• Products including medications usually get added to diets to address specific problems, but remain in the diet long after the problem disappears. Regularly review diets to consider why these products are being included; is the reason still relevant, are they the most appropriate and are they cost effective?

• Check the in-feed medication program with the veterinarian.

Review dry sow feeding

Sows in groups have a lower critical temperature than sows housed individually. In brief, they use less feed to keep warm. Review sows condition score and adjust feed levels in gestation if sow body condition permits.

Reducing energy use

Electricity costs have doubled in the last 5-6 years and are now in the order of \$0.05/kg DW produced. There are opportunities for energy costs to be reduced on all properties as follows:

- Do a Tariff check
- Use "Switch-off" Signs

• Where possible, shift load to off peak periods e.g. pumps for filling tanks and milling of grain. Increase the amount of water storage to facilitate shifting the consumption to off peak.

• Try to avoid using motors that are not suited or sized correctly for the job. While a motor may have been cheap to purchase from an auction, the ongoing costs could be greater than you realise.

• Clean and maintain electrical equipment for better efficiency.

• Always check around the pumps and the water system for leaks that cause inefficiency & cycling of the motor.

• Efficient use of heat lamps would be can be assisted through reducing the area being heated, introducing thermostatic controllers to ensure that lights are turned off above set temperatures and use of dimmers to reduce the output of energy when lights are not required to be as intense.

Conclusion

In the current economic climate it is imperative that every effort is made to reduce wastage and maximise market returns. A few cents saved here and gained there will translate into dollars and every dollar counts at the present time.

Reflections following PPPE

Jayce Morgan

First let me say PPPE surpassed my expectations so congratulations to the organising team – well done.

The speakers were excellent but some talks got the cogs turning and the result is this article.

The achievements by the Danes in their breeding selection for increased litter size is amazing – average production figures well in excess of 30 pigs per sow per year and some litters with 25 piglets born alive.

This requires some careful management and a lot of attention to details for ongoing piglet survival.

From the talk by Dr Vivi Aarestrup Moustsen I noted that the average sow size/dimensions have not changed from 2003 to 2017 so large litters mean smaller piglet birth weights.

Twenty five live born piglets during 8 hour farrowing is quite a task to maximise piglet survival especially if sows farrow early evening.

There was also mention of the relationship of sow energy status and farrowing duration - the shorter the time from the sow's last feed to the onset of farrowing the shorter the farrowing.

So timing of feeding is important both to provide the sow with enough energy for farrowing and a shorter farrowing interval resulting in less still births.

If sows farrow during the night there is a need to feed later in the day – is this an area where innovative technology could play a role? Could an increase in monitoring of sow behaviour, body temperature, movement or some other parameter, by camera or other technology combined with automated feeding provide individual sow feed at a more optimal time for the sow pre-farrowing? Would adlib feeding over-night be effective – the sow could choose when to eat?

From the farmer perspective there are advantages in terms of reduced cost of production and higher productivity gains but there are also disadvantages in terms of piglet survival with potential for increased mortalities due to smaller birth weights.

There would also be an increased need for more skilled personnel in both the breeding and farrowing sections to make this a reality. I am sure individual farmers and their veterinarians will determine the right path for them.

A useful indicator for mothering ability of the sow was described as piglet survival to day 5.

It should be remembered that the success of this or any other breeding management system depends on good records.

This leads me to the talk by Ms Ellen Møller Hansen who spoke about the application of precision farming to herd management.

Ellen is a very results focussed consultant to pig farmers in Denmark and her talk was "Applying precision farming to herd management".

Precision for Ellen is using lists, working smarter and focussing an extra 5-10% management to areas that have a negative influence on production. The suggestion was for a low tolerance in variation from goals – aim for 90% as planned.

Some comments from the slides:

• Create the flow – know the production 4 months in advance.

• Have a strategy and stick with it. You decide how high to jump.

• An observation without a REACTION – what is it worth?

Ellen also touched on research results from SEGES Danish Pig Research Centre on piglet survival. Surprisingly one third of dead piglets from day 5-20 died from blood poisoning from a mortality group of 1300 piglets.

Ellen's comment was that management caused the mortality and we need "less holes in piglets". The aim was for more oral treatments and less injectable treatments.

Precision farming -

• visual focus – remember placement of signs, use of pictures or some other visual cue can be good reminders in a busy workplace

• same standards in all farrowing crates – cold temperatures cause a slow death – attention to detail in terms of creep temperatures and placements

reducing non-productive days,

• making sure that the sows on the computer list are the actual sows in the service unit, and that some have not been diverted to hospital pens or held back as foster sows

• making sure that the correct vaccination management applies to the 5-10% of sows in hospital pens or other mixed groups

• benchmark your results against your goals every 3 months – keep on track by identifying problem areas early

• dealing with low weaning weights – an increase of 0.5 kg at weaning results in an increase of 1.5kg in grower phase

• treating anaemic piglets – these have lower efficiency in weaner unit

• increased weaning weight with supplemental milk – an extra 650g weaning weight is 2.5% reduction in piglet mortality

Success lies in the details!

2018 June – APVMA review of macrolide antibiotics – final decision

Jayce Morgan

The Australian Pesticides and Veterinary Medicines Authority (APVMA) initiated a review of macrolide antibiotics (kitasomycin, oleandomycin, and tylosin) due to concern, raised by the Joint Expert Advisory Committee on Antibiotic Resistance (JETACAR), about the potential risk of transfer of antibiotic resistance to humans following use of macrolides in animals.

Use of antibiotics as growth promotants require low doses for extended periods creating a highly selective pressure for resistance.

The APVMA has decided to withdraw approval for the use of macrolide antibiotics for growth promotion in animal production.

The full announcement of the decision can be found on the website of the Veterinary Practitioners Board of NSW

The full report about this decision can be found on the APVMA website

The Australian Pork industry and their veterinary consultants have been very proactive in their

approach to antibiotic use. Many producers have very limited use of antibiotics and only on an as needed basis for treatment of disease.

Development and adoption of the Australian antimicrobial stewardship program (in collaboration with other industries) is to be commended.

More information about this program may be found in the winter 2017 edition of the APL publication Pigs to Pork.

Basically the stewardship program revolves around 5 main concepts:

- Responsibility for the appropriate use of antimicrobials between prescribing veterinarian and the livestock producer
- Reduction implementation of biosecure systems which allow safe reduction in the use of antimicrobials
- Refinement right diagnosis, right drug, right time, right dose, right route of administration and right length of treatment.
- Replacement use of alternative therapies where possible so long as animal welfare is not compromised
- Review regular review of how the system is working on farm and within industry

Safe responsible use of antibiotics is important for the whole community.

The worst it has ever been!

Jayce Morgan

I have heard that statement quite a few times lately, both in relation to the current market crisis and the drought.

When you are in crisis mode it can be very hard to see a path forward. Everyone associated with the pork industry wishes they had a magic wand to ease the pain. Everyone is praying for rain.

My 92 year old uncle had a stint in hospital and things were not looking good. He started talking about his funeral wishes and it started to get pretty stressful. But then a lot of family started visiting and the fresh energy they brought was rejuvenating for him and he is still kicking.

I tell you this only because we are all in this life together, and coming together or talking together and sharing the burden can help immensely.

NSW DPI Drought Hub

NSW DPI Rural Resilience Program Support for Pork Producers

Queensland Assistance Measures



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