



pigbytesnewsletter

WWW.INDUSTRY.NSW.GOV.AU

ISSUE 3 OCTOBER 2009

NSW WOMEN IN AGRICULTURE

NSW Women in Agriculture was established in 1995 to allow women with a common interest in managing and working in businesses involved in agriculture to come together. Membership is open to any woman involved in the business of agriculture whether paid, unpaid or volunteer, employer or employee.

Five broad aims of the organisation are to:

- Unite and raise the profile of women involved in agriculture
- Address rural and agricultural inequalities
- Work to ensure the survival of a prosperous agriculture for future generations
- Provide training and support for rural women
- Assist rural women to become a political and economic force

The Cowra-Canowindra Group has a luncheon with Grant Pettrie, Agricultural Attaché at the US Embassy on October 22nd. Lunch is 12 noon at the Pridham Centre on the Agricultural Research Station at Cowra and cost is \$20. Contact Maree McKay 0428 443 515 if you would like to attend this luncheon: or if you would like more information about NSW Women in Agriculture. Email: maree_mckay@bigpond.com

WEAN MORE PIGS

A key performance indicator in the pig industry for any production system is the number of pigs weaned per sow per year. The more pigs you have for sale the higher the profit per sow; there are also more gilt progeny to choose from if you breed your own replacements. At the recent APL/CRC sow productivity workshop piglet survival was a major theme.

Piglet birth weight and colostrum intake are the 2 major factors affecting piglet survival. The majority of piglets that weigh < 0.8 kg at birth die, and adequate intake of colostrum is essential as it provides the energy and antibodies required for survival. However other factors such as birth

order, duration of farrowing and environment can impact on the viability of even the best piglets.

Farmers cannot change birth order however good sow management can improve the duration of farrowing. The greatest impact a farmer can have is on the micro-environment of the farrowing crate.

Even in controlled environment sheds the newborn piglet is at risk of chilling caused by evaporation of placental fluids which can lead to hypothermia and reduced viability of the piglets. Low viability piglets tend to be slower to suckle, have reduced colostrum intake and are more prone to disease and overlay by the sow.

The most critical time period is the 24 hours after farrowing. Provision of a warm area, preventing drafts at piglet level, use of hovers to prevent heat escaping, use of a second lamp at the back of the sow for the first 24 hours all help to improve piglet survival.

For outdoor pig farmers hut design and provision of plenty of straw bedding satisfies the nest building instincts of the sow and creates a more favourable micro climate for the newborn piglets. A report titled "*Housing of farrowing and lactating sows in non-crate systems*" from Aarhus University Denmark contains summaries of several trials from work in England and Europe. Topics include risk factors for piglet survival, breeding and selection in the sow to improve maternal traits, the role of human intervention at farrowing, and pen design.

Of particular interest was the paper which reported that gilts selected from 'High Survival' dam lines had significantly less overlay of piglets (Baxter *et al.* 2008). The full report is available from <http://web.agrsci.dk/djfpublikation/djfpdf/intrhus11.pdf> JM

PROHAND PIGS - STOCKPERSON TRAINING

The ProHand Pigs training program has been revised and is now available. The training aims to improve the attitude and behaviour of stock people working in the pig industry. There are real



Industry &
Investment

commercial benefits to the pig farmer when their pigs are handled in calm and stress free manner.

The course is computer based but the only computer skills the trainee needs is the ability to drive a mouse and read a computer screen. Participants work through the material at their own pace, and group discussion breaks enhance the benefits of completing the course. The course consists of two half days 6 weeks apart.

Jayne Morgan is one of the trainers available in NSW to deliver this course, and would like to offer the course in groups of 8 to interested people. Locations for the course being considered include Yanco, Young, Forbes, Dubbo or Gunnedah and Lismore or Kempsey depending on demand.

There will be a fee to cover venue hire, catering and computer hire. Please contact Jayne Morgan if you or your staff would like to participate in this training. *JM*

PRIME PIGS OR FAT WEEVILS

With harvest just around the corner and grain stock at low level its time to clean up silos ready for new season grain and consider treating any carry-over stocks. Empty silos should be thoroughly cleaned before harvest, and then sprayed with a registered structural treatment at label rates. Carry-over grain should be fumigated if new grain must be stored in the same silo. All grain spills should be cleaned up to remove any residual populations of damaging insects.

Attention to cleanliness and implementation of a rigorous sanitation program at this time of year can prevent some very expensive experiences in a few months time. For details on treatment options see page 91 of:

http://www.dpi.nsw.gov.au/__data/assets/pdf_file/0011/272945/Winter-crop-variety-sowing-guide-2009.pdf

Remember that there is more money in prime pigs than fat weevils. *GM*

SURVIVING SEASONAL INFERTILITY

Seasonal infertility is characterised by reduced farrowing rate (usually associated with delayed returns to service around 30 days post mating), gilts failing to reach puberty, increased wean-to-oestrus interval and (sometimes) reduced litter size. Seasonal infertility usually affects animals mated in Weeks 1-16, but this period and the severity of seasonal infertility can vary from farm-to-farm and year-to-year.

With the summer and seasonal infertility periods fast approaching, it is important that producers prepare to manage their herds and housing to reduce any negative impacts on reproductive performance. Where possible, reduce social

stress among mated sows by placing them in stalls for the first 4 weeks of pregnancy. If you do not have stalls, house sows in stable groups by establishing groups immediately after mating and don't re-mix. Grouping sows by parity/size (where possible) and giving them adequate space allowance (2 m² per sow) will also reduce social stress.

How sows are fed in gestation and lactation impacts on their ability to breed. During the summer heat, feed intake is likely to be lower. Therefore, it is advisable to increase the concentrations of protein, lysine and perhaps energy, in the diet. This decrease in voluntary feed intake can be minimised by keeping the sow cool. Sows require extra feed (3kg/day) in the first 3-4 weeks of gestation (in summer) and in the last 3 weeks of gestation. During lactation, maximize feed intake by providing fresh food in front of them all the time, keep them cool (less than 22C) using drippers and poly-duct fans, ensure access to fresh, clean, cool water, at correct drinker flow rates (2 L/min), treat sick sows early and effectively and have sows in correct body condition at farrowing.

High temperatures (>25C) can affect boar fertility, although the response of individual boars varies. In addition to the heat affects on boar fertility, high ambient temperatures reduce the feed intake of sows during lactation, which increases the wean-to-oestrus interval. This is one of the "symptoms" of summer infertility. Ensure that boars are kept cool (less than 25C), monitor semen quality closely when doing AI in summer. Aim for sperm motility of greater than 60% and normal morphology greater than 80%. Cool lactating sows-install drippers (make sure they work!) and keep blinds open to allow air to blow over the sow (or use poly-ducts) for evaporative cooling. *TH*

CHILL DRILL

- It's going to be a **hot** summer.
- Check all cooling systems.
- Install automatic controllers on spray and drip systems in each shed.
- Adjust sprays and drips according to the following table. *IK*

	Spray cooling growers, finishers, dry sows & boars	Drip cooling lactating sows
Application rate	330 ml per hour per pig	330 ml per hour per pig
Cycle time	5 min on, 45 min off	1 min on, 10 min off
Nozzle/dripper flow rate	3 litres/hr x no. of pigs/nozzle	3 – 3.5 litres/hr
Switch on temperature	26-28 °C	22-24 °C

SURVIVING SUMMER INFERTILITY CHECKLIST

1. Provide shade at all times so sows can lie out of direct sunlight.
2. Ensure drip coolers, sprays and shutters are functional to reduce the heat stress and maximise ventilation.
3. Ensure water intake is not restricted.
4. Outdoor sows benefit from a good wallow and cool drinking water.
5. Adjust gestation-feeding strategies. For example:
 - ⇒ In group housed gilts, feed 3kg / day from 2-28 days post mating for 4 weeks. In the fifth week step down feeding level to 2.3kg
 - ⇒ In group housed sows, feed 3.2kg / day from 2-28 days post mating for 4 weeks. In the fifth week step down feeding level to 2.3kg
6. Maximise lactation intakes by feeding in the cooler parts of the day, and feeding more frequently (2-3 times a day).
7. Where possible, house gilts & sows in stalls for the first 4 weeks post-mating.
8. Avoid overcrowding, as this will exacerbate the summer infertility problem. Ideally 1.5-2 m² each sow)
9. Review diet specifications, especially the lysine levels (1-1.25%) in the lactation diet.
10. Increase the frequency and duration of boar contact to optimise the stimulation of oestrus and puberty (for pre-pubertal gilts 20mins/day for 7 days a week).
11. Conduct heat stimulation and detection in the cooler times of the day.
12. Increase efforts to diagnose pregnancy. Focus on 3-week oestrus detection. An increase in three week returns indicates fertilisation failure possibly due to incorrect timing of mating or insemination, or poor quality semen / boar. If a 3-week (regular return) problem occurs these causes can be investigated. During seasonal infertility the ratio of regular to irregular returns (25 – 32 days) tends to increase. Consider implementing routine pregnancy diagnosis with Real-Time Ultrasound at 23-35 days post-mating to pick these irregular returns.
13. Pheromones produced by the boar help overcome the effects of summer infertility. Where possible, maintain boar contact with sows for the first 6 weeks of pregnancy.
14. Use PG600 to synchronize non-cycling gilts/stimulate oestrus in non-cycling gilts to make up shortfalls in oestrus females.
15. If using artificial insemination, adding 0.4mL of oxytocin to the semen dose

immediately before insemination may help increase farrowing rate over summer.

16. Plan to increase gilt and sow numbers to satisfy farrowing targets. Increase the mating program by 10-15% over the anticipated summer infertility period. However, beware of the trap of overcrowding animals, which will exacerbate the problem.
17. Don't cull sows at weaning, but re-mate them where possible and cull if you have met the 35-day pregnancy test target. *TH*

NSW DPI PIG INDUSTRY GROUP

Jayce Morgan

Livestock Officer 02 6349 9717

Trish Holyoake

Technical Specialist 02 6938 1993

Ian Kruger

Environmental Engineer 02 6763 1272

Greg Mills

Industry Development 02 6750 6312

Pigbytes is a newsletter from the pig industry team at Industry & Investment NSW.

Editor:

Jayce Morgan

jayce.morgan@industry.nsw.gov.au

To subscribe to an email version of this newsletter phone or email the editor.

<http://www.dpi.nsw.gov.au/pigbytes>

ISSN [1836 974X]

© State of New South Wales through NSW Department of Industry and Investment (Industry & Investment NSW) 2009. You may copy, distribute and otherwise freely deal with this publication for any purpose, provided that you attribute Industry & Investment NSW as the owner.

Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (October 2009). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of Industry & Investment NSW or the user's independent adviser.

Your email address will be collected by the Industry & Investment NSW and recorded for the purpose of providing an email newsletter service for you. This information will not be distributed to any other parties. The supply of your email address is voluntary. However, the email newsletter service cannot be effected without storage of this information on our databases. You may update or unsubscribe from these services at any time by sending an email to the editor shown above.