

ASF management at the border & on farm

ASF Fact Sheet
and
ASF awareness
tool insert

**Colossal colostrum;
providing a good start in life
– the key to piglet survival**

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For information about APL Membership or if you want to share your pig farming stories please contact APL's Events and Membership Executive, Rachel Blake at rachel.blake@australianpork.com.au or on 02 6270 8807.

You can also visit the APL website at www.australianpork.com.au/members for more information on membership or Aussie Pig Farmers at www.aussiepigfarmers.com.au/people/ to see stories from other producers



ABOUT US

Australian Pork Limited (APL) is a unique rural industry service body for the Australian pork industry. It is a producer-owned company delivering integrated services that enhance the viability of Australia's pig producers. The organisation aims to enhance opportunities for the sustainable growth of the Australian pork industry by delivering integrated marketing, innovation and policy services along the pork industry supply chain. APL pursues opportunities for the industry at both the domestic and international level.

Know your APL Staff

Peter Smith, Marketing Development Manager

Since first joining APL in 2004, I've held a number of roles within the Marketing division which have helped grow my understanding of the industry and my connections with producers. These roles have included; management of the Woolworths account, overseeing the APL state managers and working in the export market.

My current role is Marketing Development Manager centred around managing the collection and dissemination of industry data from a range of sources, including the Australian Bureau of Statistics, both APL member and non-member producers, export abattoirs and processors. This data is used in a number of publications such as, Eyes and Ears, Weekly Slaughter Report, APL Monthly Domestic Import Export Reports and the APL Production Survey. Being in regular communication with stakeholders – specifically producers – means my days and weeks are quite varied in the type of work I'm undertaking but it allows me to be acutely aware of challenges faced in a very tough market.

The international market development work was added to my responsibilities in 2016. This involves working closely with the Policy division and the International Working Group to



explore opportunities for the Australian pork industry in a range of Asian markets. I'm passionate about the pig industry and believe that building our export opportunities will help strengthen and stabilise the industry, right down to the smallholders for the long term.

Outside of work, I enjoy spending time with my family – I'm a proud father and grandfather.

I'm often at industry days and road-show events to explain our data around pricing and forecasts and I'm happy to chat on these, plus the work we're doing to build opportunities internationally.

Feel free to email at peter.smith@australianpork.com.au or give me a call on 02 6270 8841.

African swine fever (ASF) – management at the border & on farm

Following the detection and spread of the African swine fever (ASF) disease in mainland China and in Belgium, there has been extensive media coverage in recent months. APL has been working closely with the Department of Agriculture and Water Resources to ensure that the risk of ASF arriving in Australia remains low.

The Department has responded to some of these concerns by changing import conditions for some products such as pork jerky. Considered by the Department as the highest risks to the Australian pork industry are pork products carried into the country from travellers, ordered online from overseas, pet food being fed to pigs, and animal feed products arriving from China. Research shows ASF can survive in animal origin feeds including supplements fed to pigs.

Though it does not pose a risk to humans, ASF is a highly contagious disease that affects both domestic and wild pigs. It has no vaccine or cure and is fatal to pigs. Clinical signs include fever, breathing difficulty, skin discolouration (cyanosis) and abortions for pregnant sows. These signs can be similar to other endemic diseases making it difficult to identify. If you are at all concerned you should contact your vet. The virus is extremely hardy, and can survive in uninhabited pig pens for up to a month, or even longer in dried pork and frozen pork products (up to three years).

Australia remains free of the

disease thanks to a combination of biosecurity measures at the border, good on-farm practices, and the prohibition of swill feeding (feeding meat products and pet food to pigs). However, recent detections of the disease in products stopped at the Australian border highlights the importance for Australia's pig producers to remain vigilant.

The easiest and most effective way for producers to protect themselves and the industry is to maintain good on-farm biosecurity practices. These include:

- never feeding meat products, supermarket waste or pet food to pigs
- imposing a mandatory exclusion period for anyone who has recently been in contact with pigs, e.g. minimum three days and 7-10 days for international visitors (as people can transfer the virus on their clothing and footwear to pigs)
- implementing an on farm plan to manage the risks to your pigs; the pork on-farm biosecurity manual can be used to craft this plan (found at <http://www.farmbiosecurity.com.au/wp-content/uploads/2013/08/National-Farm-Biosecurity-Manual-for-Pork-Production.pdf>)
- tattooing or tagging all pigs as they move off your property (this ensures traceability of pigs in the event a disease is detected)
- filling out a PigPass NVD for all pig movements and reporting any pig movements onto your property to the PigPass database (again this allows officials to trace pigs if a disease is detected – the earlier the

detection and tracing, the more likely the disease can be stamped out)

- issuing staff and visitors with protective clothing and footwear to reduce the risk that visitor's clothing and footwear carry disease to your pigs
- washing all protective clothing and shoes daily to remove all viruses that may be present
- prohibiting meat products at or near your piggery (e.g. ham sandwiches) to reduce the risk of infected pork fed to your pigs
- maintaining a stock-proof fence around your piggery to prevent contact with feral pigs
- recording all contractors, vehicles and other visitors to your piggery again to allow tracing of the disease incursion
- cleaning and disinfecting all vehicles used to transport pigs; particularly those returning from other pig sites such as farms, saleyards and abattoirs as these vehicles could be sources of infection, and
- ensure that your pig feed is sourced from an accredited FeedSafe® supplier who can advise you on the actions they have taken to ensure your pig feed is safe.

If you need further information or resources on how to improve your on-farm biosecurity, please get in touch with Alister Oulton at alister.oulton@australianpork.com.au or on 02 6270 8832.

You can find more information about ASF by reading the APL factsheet on pages 4 to 5.



FACT SHEET

AFRICAN SWINE FEVER (ASF) VIRUS

African swine fever (ASF) is a highly infectious and contagious viral disease of domestic and wild pigs of all breeds. ASF is usually fatal in infected pigs.

ASF is subject to the statutory notification and control obligations internationally. The substantial losses related to an ASF outbreak in countries exporting pigs or pork are linked to import bans imposed from countries free from the disease. ASF does NOT affect public health or food safety, i.e. pork meat is safe to eat.

With ASF now spreading in China, APL urges ALL producers to take extra precaution with their herd's biosecurity. We recommend that all producers review their farm biosecurity plan and complete the Piggery Biosecurity Audit Checklist in the National Farm Biosecurity Manual for Pork Production publication at <https://bit.ly/2JJPSXa>.



Some clinical signs of ASF virus infected pigs. Source: CSIRO Australian Animal Health Laboratory.

General ASF Disease Facts

- ASF is a notifiable, highly contagious disease of wild and domestic pigs
- given the uninfected status of the Australian pig herd, ASF will devastate the Australian herd if it is introduced
- the spread of ASF into eastern Europe in 2007 was thought to have originated from swill dumped from a ship
- no vaccines or treatments for ASF are currently available
- ASF affects all age groups of pigs
- it is difficult to diagnose ASF based on clinical signs or lesions because of its similarity with other haemorrhagic diseases
- symptoms of ASF include fever followed by dullness, vomiting, diarrhoea, breathing difficulty, coughing, nasal and eye discharge, abortion, blue or red discolouration of the skin (cyanosis) particularly the ears and snout, and death within seven days
- ASF can occur in acute, sub-acute or chronic forms. The death rate is dependent on the severity of the symptoms, with death rates of pigs with acute forms up to 100 per cent
- infection is spread from pig to pig by aerosols from infected discharges and faeces, consumption of infected meat, bites of soft ticks, the bites of lice and flies and/or from contaminated syringes. Contaminated feed, water, clothing, footwear, vehicles, equipment, soil and wildlife can also spread the virus
- the most likely sources of ASF infection are pork products, porcine genetic material and incursions by infected pigs
- the most significant risk of entry of ASF virus into Australia is via illegally imported contaminated pork products that are swill fed to domestic pigs and/or accessed by feral pigs
- swill feeding of pigs in Australia is prohibited
- ASF virus is very stable across a range of temperatures (including temperatures below 0°C) and pH (4–13), particularly when held in a protein rich environment (blood, serum, meat, etc.) and can persist in unprocessed frozen pork for up to six months.
- once a feral pig population becomes infected, the infection is likely to persist
- virtually every successful ASF eradication programme has required destruction of all pigs in an affected area.



Recommendations

Biosecurity Considerations for Producers

- border security measures and farm biosecurity must be maintained
- implement biosecurity for farm workers returning from international travel:
- consider implementing a quarantine period of seven days for all workers that have travelled overseas to countries where ASF has been reported
- limit visitors to farms
- maintain a visitor register that visitors have to sign to confirm that:
 - they have showered and changed clothes since their last exposure to pigs
 - they have not returned from overseas travel where ASF has been reported within the last seven days and
 - where they were and on what dates and where they visited pigs.
- provide clean clothes and boots for visitors to wear while on-site.
- follow other generally accepted biosecurity practices:
 - routinely clean clothing and footwear
 - control entry to the farm
 - implement a policy that does not permit staff to own or work with other pigs
 - keep non-farm vehicles outside of farm or at least their drivers inside their vehicles.

Additional reading:

APL recommends you consult with your veterinarian regularly and urges you to contact them if you observe any unusual disease symptoms.

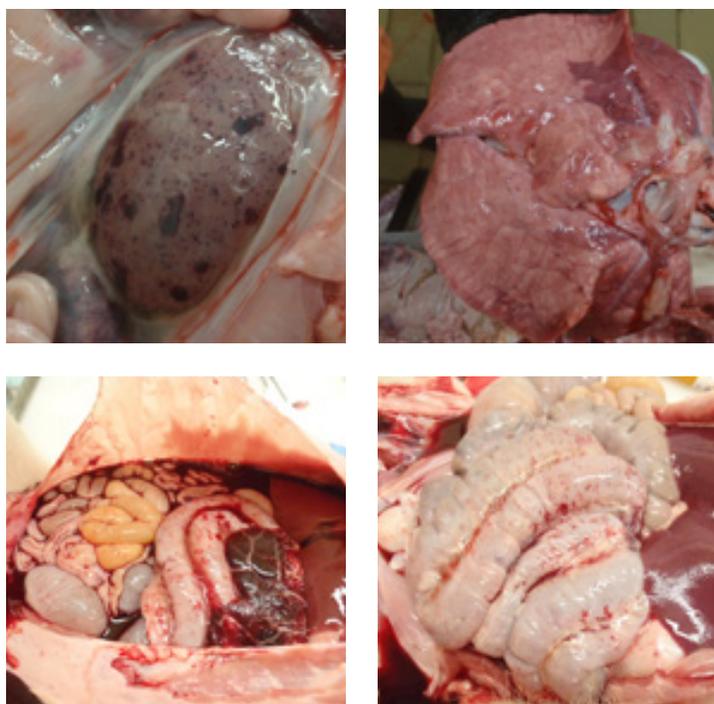
Emergency Animal Disease Watch hotline 1800 675 888.

For a great resource to show to all piggery staff how to identify ASF and how to protect domestic pigs from infection, produced by the European Food Safety Authority and the European Commission see African Swine Fever: how to stay one step ahead <https://bit.ly/2P99uHb>.

APL Project 2014/483: The epidemiology of African Swine Fever virus and its potential introduction into Australia was funded to inform the Australian pig industry about ASF and identify the risk and potential introduction and spread within Australia.

For a copy of the report please contact Dr Lechelle van Breda at lechelle.vanbreda@australianpork.com.au.

For information on how to order a gate sign visit <http://www.farmbiosecurity.com.au/buy-a-gate-sign/>.



ASF virus-infected pigs. Source: CSIRO Australian Animal Health Laboratory.

Put your World Organisation for Animal Health (OIE) – ASF awareness tool somewhere visible or near your gate sign to indicate biosecurity procedures.



All photographs supplied by: CSIRO Australian Animal Health Laboratory.

Colossal colostrum; providing a good start in life – the key to piglet survival

Around 80 per cent of piglet losses occur in the first 72 hours of a piglet's life, with the risk of mortality increasing with increasing litter size. So, how can we reduce a piglet's risk of dying from exposure, starvation and/or being overlaid/crushed by the sow? How do we make sure that each and every piglet gets the best start in life and not only survives but also thrives? **By ensuring each piglet receives colostrum!**

Colostrum is the first milk produced by mammals, including sows. Colostrum is rich in protein, fat, and carbohydrates, which makes it a good energy source. It also contains antibodies and many nutritional factors that aid piglet growth and development. Colostrum production in the mammary gland occurs prior to the birth of the first piglet, and the total amount produced can vary greatly between sows. It can be gently squeezed from a sow's teats for a few hours before farrowing and can flow freely during farrowing. Its production declines rapidly during the first 14 hours post-farrowing and is completely replaced with a fatty milk that contains less antibodies, by 34 hours post-farrowing.

As the sow is the source of colostrum and milk for her piglets, it makes sense that, in order to be able to provide sufficient amounts of good quality colostrum and have a successful lactation, she has certain requirements that must be met, both before and after farrowing. These are:

Correct temperature

Sows require an ambient temperature of about 18–20°C. At this temperature, sows eat well and stretch out at rest. At lower temperatures, sows will eat more and also tend to “hunch” their bodies in an attempt to reduce

heat loss. At higher temperatures, a sow's appetite and feed intake will be reduced and they can become heat-stressed. All of these can interfere with milk production. Heat-stressed sows are also more likely to have stillborn piglets.

Correct feed (type and amount)

Sow feed is formulated according to the needs of the sow during the different stages of production. Different genetic companies may have different pre-farrowing feeding recommendations, so it is best to consult with your genetic supplier and/or nutritionist about the best feeding regime for your sows.

Water

Water needs to be available at the correct temperature and flow rate. A sow requires up to 10 litres of water per day just for milk production. Sows that produce large amounts of milk also have a high metabolic rate, which increases both their heat production and their water requirement. Lactating sows require 17 litres of water per day on average (this can vary between 13–25 litres/day).

Sows can be lethargic when it comes to drinking. They tend to prefer troughs, where they can drink large amounts of water quickly. If a drinker doesn't have a sufficient flow rate (between 1–2 litres/minute), sows won't stay there until they drink enough; they will drink a bit and then lie down or move away. Sows that don't drink enough water don't produce enough milk, and this will affect the piglets' growth rates and health. Water intake is also affected by both environmental and water temperature; an increase in environmental temperature will result in increased demand for water, but pigs may refuse

to drink water (even if the environmental temperature is quite high) if the water temperature is also high (e.g. as a result of water pipes being in full sun).

Post-farrowing sow checks

Sows should be checked carefully – and frequently – just after farrowing to make sure they are healthy and that their litters have settled and are feeding well. Staff should look for signs of post-partum infection and mastitis. If either is suspected, treat the sow as soon as possible. Piglets may need to be fostered to another sow before their condition falls back too far.

Colostrum – energy and warmth for newborn piglets

When they're born, piglets experience a sudden drop in temperature and are cut off from their nutrition source once their umbilical cord breaks. Combined, these factors mean a newborn piglet will rapidly become colder, while also using up the energy reserves they have. As such, finding a teat quickly is crucial for the newborn piglet. When a piglet begins to suckle and receive colostrum, it gains energy and warmth, increasing their chances of survival.

Colostrum and piglet protection

Immunoglobulins (also known as antibodies) form part of an immune protection system that helps fight the diseases that animals may be exposed to during their lives. Piglets are born with very little immunity and gain a great deal of their immunity from the immunoglobulins in colostrum. Although colostrum is produced in the sow's udder, the vast majority of immunoglobulins in colostrum come from immunoglobulins that are already circulating in the blood of the sow or gilt.

Good management practices such as careful gilt preparation during puberty and the pre-mating period, as well as vaccination programs recommended by your veterinarian are the best ways to maximise immunoglobulins levels in colostrum.

Best timing for colostrum intake

Immunoglobulins present in the colostrum are very large compounds that can only be absorbed properly for about the first 24 hours after birth. The small intestine of a newborn piglet is able to non-selectively absorb immunoglobulins and other large compounds ingested and released by digestion. A piglet's ability to absorb immunoglobulins falls rapidly. Between 24–36 hours after birth, the piglet's gut closes and absorption of immunoglobulins is no longer possible.

Identifying 'disadvantaged' piglets

Given the opportunity, piglets can consume much more colostrum than they normally drink from a sow. The amount of colostrum a piglet will normally drink will depend upon the piglet's ability to reach the teat, to attach properly to the teat, and also on the piglet's own liveliness. Some piglets fail to thrive on their own mothers, and in these instances, it is important to be able to detect this before the piglets lose too much condition.

Piglets that are at a higher risk are:

- piglets born into a very large litter
- runts or low birth weight piglets
- piglets born towards the end of the farrowing
- exposed or chilled piglets
- anaemic piglets, and
- splay-legged piglets.



The easiest way to pick up a fall-back/ runt/struggling piglet before they lose too much condition is to observe both its the behaviour and physical appearance.

Look for piglets that:

- try to scrounge a drink when the rest of the litter are asleep
- appear hollow or have 'fluffy' coats
- don't settle to feed, i.e. they try to push others away to attach to a teat several times in a feeding session
- are 'whinging' or 'sooking', and
- huddle near the teats instead of the creep area.



These piglets will need some help in acquiring sufficient amounts of colostrum if they are going to survive and thrive. If a sow has a large litter, split-suckling (where piglets suckle in shifts) can be employed to ensure all piglets receive colostrum from their birth mother (which is optimal). If split suckling is not appropriate (i.e. piglets are too weak or the sow does not have enough colostrum) piglets can be provided with supplemental colostrum (via tube-feeding), from either a milked sow, or an artificial source (usually bovine derived). Quite often piglets may also need a different mother and this is where a good understanding of fostering is useful (See APL's *Guidelines for Fostering: Getting the "One per centers" right*).

As mentioned previously, there is a narrow window where the immunoglobulins present in colostrum can be absorbed through the gut and into the blood stream (a maximum of 24-36 hours after birth). The control of this gut closure is directly linked to the non-specific absorption of nutrients, including glucose, lactose, and colostrum (both artificial and natural). Therefore, disadvantaged piglets should receive

supplementary colostrum before they receive glucose or any other supplemental feed as this may hinder their ability to absorb these essential immunoglobulins.

Colossal colostrum: whole of life importance

The beneficial effects of colostrum are present for much longer than just the piglet phase. Colostrum will influence growth and development for most of a pig's life. Piglets which have had increased colostrum intake have shown improved growth and higher weaning weights. Colostrum intake also improves the development of the small intestine and could positively influence feed conversion later in life.

Colostrum has also been shown to stimulate development of brain, skeletal muscle, and heart muscle in pre-weaned pigs. This stimulation is not just associated with crucial nutrient intake – some components of colostrum are required to achieve a maximum rate of protein synthesis and growth.

Lower colostrum intake can also have noticeable effects later on in life. Sows that had low colostrum intakes when they were piglets produced offspring with lower growth rates and lower levels of immunoglobulins early in life. Lower colostrum intake in female piglets may affect her ability to produce good quality colostrum when she has her own litter.

The importance of colostrum for the survival of newborn piglets and their ongoing growth and development cannot be overstated.

Ensuring that all newborn piglets receive an adequate amount of good quality colostrum in the first 24 hours of life will not only give them the best start in life but will have positive effects for their overall whole-life health and development.

If you would like a copy of *Guidelines for Fostering, Farrowing Section* or *Standard Operating Procedures*, please contact Dr Rebecca Athorn on (02) 6270 8827 or at rebecca.athorn@australianpork.com.au.

What's in store for Year of the Pig

The Year of the Pig, a once in 12-years occurrence, kicked off on 5 February. Australian Pork Limited made the most of the porcine theme with national advertising and a consumer competition that began on the 27 January and ended on the 18 February.

In its first three days of opening the competition had received nearly 500 entries. To enter the national promotion, people simply needed to buy fresh pork between 14 January and 18 February, keep their proof of pork purchase, and enter online at www.yearofthepig.com.au for an instant chance to win.

This is the second year APL have been involved in Chinese New Year. Aligning with the ongoing versatility campaign, producers and pork lovers were encouraged to check out the new APL Chinese New Year recipe

e-book, which is perfect for sharing with friends and family.

View and download the APL Chinese New Year e-book at <http://australianpork.com.au/wp-content/uploads/2019/01/APL-recipe-book-Chinese-New-Year-min.pdf>.

Butchers backed the celebration with recipe cards in store and encouraged their customers to buy

pork in order to enter the consumer promotion.

Easter campaign

Recipe cards are a great way for consumers to try new recipes with different pork cuts. With Easter just around the corner, APL will be focusing on roast versatility, with both advertising and butcher point of sale materials and recipe cards set to roll out in April.

Free small-scale pig producer workshops – Victoria

The Victorian Government is running a Planning Support Program which includes free workshops and grants to help small-scale pig producers to comply with 2018 planning reforms for animal industries.

Several workshops will be delivered across regional Victoria during February and March to support proposed and existing small-scale pig producers prepare a land use planning permit application.

'Small-scale' means less than or equal to 150 sows or 1,000 Standard Pig Units (SPU).

Grantley Butterfield – APL's Policy Manager – Planning and Environment,

will be attending workshops in:

- Daylesford on Tuesday 26 February
- Tatura on Wednesday 13 March

The workshops will provide producers:

- an overview of the grants program, offering up to \$3,000 for eligible expenses related to on-farm works, consultancy and advice, or training that supports the preparation of a land use planning permit application (producers must attend a workshop to be eligible for a grant)
- information to educate small-scale producers about their planning requirements.

- guidance on the development of property, locality and nutrient management plans for small-scale pig and poultry farms to support a planning permit application, and
- help to identify site improvements needed to support their planning permit application.

For more information and to register for a workshop, please follow the link to Agriculture Victoria's website <http://agriculture.vic.gov.au/agriculture/livestock/2018-planning-reform/planning-support-program-for-small-scale-pig-and-poultry-producers>.