



Probably the biggest risk of disease facing your pigs comes if they have direct and close contact with other pigs; be they new animals you buy-in, those encountered at a show or hired-in boars.

# RISKY BUSINESS

As pig keepers we're all obliged to ensure that our animals remain healthy but, as Michaela Giles explains, there's plenty out there that can threaten this happy state

**W**e're all used to weighing-up risks; it's an everyday activity for us. Even something as simple as crossing the road requires a risk assessment to ensure that we get to the other side safely. As humans, we take these decisions automatically; they're second nature to us. But, the picture's a little different for pigs.

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The completely unseen hazards are perhaps the most worrying of the lot

Although very intelligent in a lot of ways, our porcine friends aren't quite as quick-witted as we are when it comes to avoiding potential dangers in their day-to-day lives. So it's incumbent upon us to minimise these risks and help our pigs to stay safe and secure at all times.

Some hazards are much more obvious than others. A rusty nail sticking out of a broken fence rail that's fallen pointed-end-up into the pig pen, for example, poses an obvious threat. A little less obvious, however – especially to inexperienced keepers – may be the danger posed by a newly-purchased pig that keeps coughing. Or the presence of a family of foxes living in a den right next to your outdoor farrowing unit.

## Unseen enemies

The completely unseen hazards are perhaps the

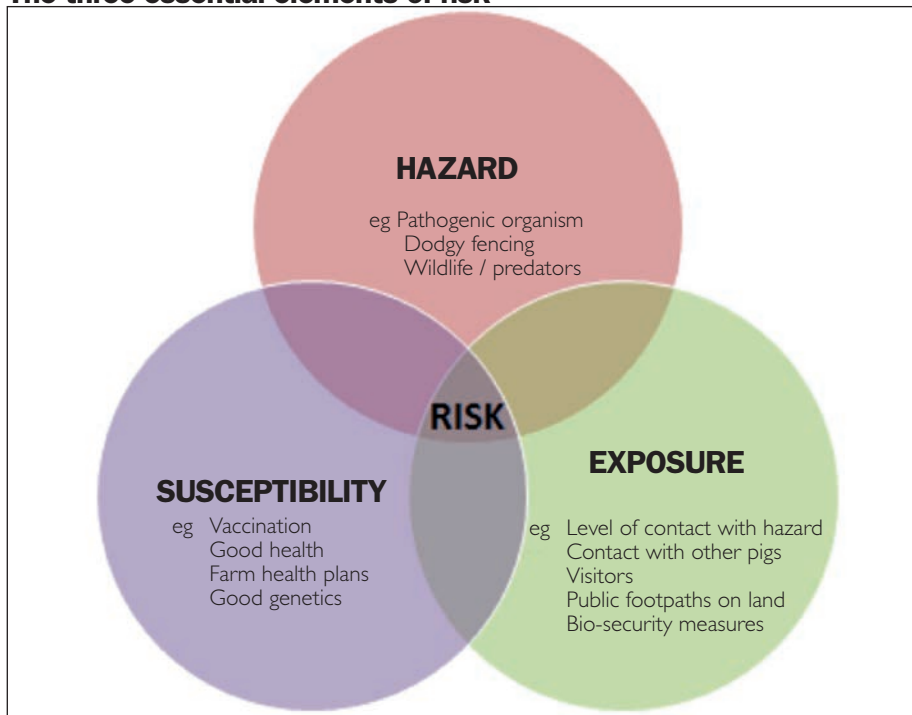
most worrying of the lot. After all, how on earth do you protect your pigs from something you can't even see, or know nothing about?

Well, the good news is that by following basic biosecurity procedures, and setting-up and implementing an effective Farm Health Plan that's specific to your level of activity, you'll be able to keep the majority of infectious diseases (hazards) at bay.

An important general rule to appreciate is that when pigs are kept healthy, they are less susceptible to problems if they are exposed when bio-security is breached. The British Pig Association (BPA) provides a whole section on its website covering Farm Health Planning.

This is excellent, practical content that includes slide shows, FAQs, information leaflets and a farm health plan form designed by the BPA Pig

## The three essential elements of risk



Veterinary Consultant, Bob Stevenson MRCVS. What's more, the Agricultural, Horticultural Development Board Pork division (AHDB Pork), has produced an excellent leaflet called *Biosecurity for Smallholders*, which focuses on general pig-related risks and its recommendations for dealing with them.

### Pig-to-pig problems

Probably the biggest risk of disease facing your pigs comes if they have direct contact with other pigs. Showing and exhibiting provide obvious opportunities for this to happen; multiple pigs being paraded around in the main ring can be a common cause of trouble.

Likewise, hiring-in a boar – or sending a sow out to meet with another boar – offers the perfect opportunity for disease to be spread. The potential for these kinds of problems to occur makes the isolation of incoming stock (together with careful observation for any signs of disease), a top, on-farm priority. Ideally, such segregation should be achieved using Defra-approved, on-farm isolation unit standards (Defra form MC-24).

But it's important not to forget that wildlife and vermin can spread disease as well, either mechanically on their feet, or via their faeces and urine. People, too, can cause similar problems although, hopefully, only mechanically! Footpaths on your land, and walkers' dogs running free may also introduce disease issues.

Predators can also be the cause of more straightforward problems; loose dogs, foxes and badgers have all been known to kill piglets, usually when the sow is at her most vulnerable, while farrowing.

### Careful control

If you're introducing your pigs to a known potential hazard – you're hiring-in a boar or you've just bought some new pigs to introduce a

fresh bloodline, then it's essential that you try to minimise any exposure to problems by the strict use of isolation facilities for a minimum of three weeks. Ideally, in my view, animals should be kept separate like this for 6-8 weeks.

Then, after the suitable isolation period has elapsed, continue to be wary by only mixing the new pig with either your least valuable pigs (fatteners rather than breeding stock), limited numbers and, if you have a choice, the least susceptible (older pigs housed nowhere near pregnant sows or new litters being born, for example).

If you're dealing with a hired-in boar and don't



**New stock or pigs that have been off your land and in contact with other animals should always be isolated for at least three weeks, before being allowed to mix with any of your existing animals.**



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have enough hire time available to go through the proper isolation process, then you can put the sow into isolation with him, and then isolate her from your main herd after he's gone.

### Susceptibility

Maximising the health of your pigs with correct husbandry, feeding and de-worming (as described in the Summer 2016 issue of this magazine), will give your stock a head start in minimising the health risks. It'll do this by giving them a strong and robust immune system. Add in a vaccination programme specific to your pigs and the activities you perform, and you'll decrease their susceptibility to those specific diseases.

While it's neither economic nor sensible to vaccinate against everything under the sun, targeting the specific diseases that your pigs may be exposed to is a precaution well worth taking.

Farm Health Planning and knowing the common and avoidable risks is a great start to minimising risk. However, if you can also learn from the experience of others in the industry, then the risks become even lower. For this reason, the BPA and the AHDB Pork division are strengthening their bond.

By proactively working together, small-scale pig farmers and keepers can benefit from access to the extensive knowledge transfer that results



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called *Ascaris suum* or roundworm. This is the parasite that causes milk spot in the liver; something that would be noted on your meat health inspection report that's conducted when pigs are sent for slaughter. In such cases, the liver would be condemned and not returned.

The two-page document covers the cost implications of a roundworm burden, including lower feed conversion rates, loss of daily weight gain, and the associated increased cost of production on the dead-weights (DW) achieved (ie carcass). While those costs might not be directly applicable to most small-scale, farmed pigs that aren't finished professionally, some increased costs and loss of profit certainly are.

### Worm burden

The AHDB acknowledges that achieving a worm egg-free environment – especially in outdoor-kept pigs – is nigh-on impossible, it does provide excellent advice and guidance on how to minimise the risk of pigs passing out worm eggs, by reducing the adult worm burden in the individual pig.

You'll see that some of the advice on general hygiene may not be applicable to an outdoor-kept pig, but there is advice on prevention where this cannot be followed, such as concentrating all your efforts on keeping the worm burden within individuals at the lowest level possible, to reduce the levels in the environment over time.

While it's quite hard for most keepers to only use their outdoor pens once every seven years (the length of time that worm eggs can survive in the soil), it's often possible to rotate pens and avoid using heavily used pens for your most susceptible pigs (farrowing sows and nursery piglets).

Sows should always be wormed before farrowing, using a wormer that kills worm eggs. They should also be moved to fresh pens, or those which have been little used. It's important to appreciate that not all wormers kill the eggs, so careful selection is required.

I've included a table here giving examples of wormers that do and don't kill the eggs, but my

**Healthy pigs will be more resistant to problems if they get accidentally exposed to something nasty. Following basic biosecurity procedures, and setting-up and implementing an effective Farm Health Plan that's specific to your level of activity, will help keep most infectious diseases at bay.**

from the many years that the AHDB Pork has been supporting commercial pig farming with clinical trials and pig-specific research. The AHDB Pork has a lot of published information in bite-sized, easy-to-understand leaflets called 'Action for Productivity', and the subjects covered encompass all aspects of pig keeping.

### Information-sharing

The plan now is that we'll be providing space in future issues of this magazine to explain the valuable content of these important leaflets in more detail. We'll also be providing a little 'translation' here and there, just to simplify the information provided for those of you who – inevitably – aren't familiar with all the commercial pig industry terminology.

Given that all pig keepers are jointly responsible for protecting the national herd, this positive joining together is an important step towards raising increasing levels of awareness on all matters relating to pig health and welfare.

With regard to minimising health risks among pigs, the *Action for Productivity* leaflets No.1 on de-worming and No.6 on Enzootic Pneumonia are especially relevant. There are a few other that will prove especially useful in this respect, too. But I'll save these for the next issue (spring, 2017), when I'll be covering pig health when showing and exhibiting.

The AHDB *Action for Productivity* No.1 leaflet I've already mentioned focuses on the importance of regular worming, in particular the most common endoparasite (internal parasite)

### Action for Productivity Advice Sheets & BPA advice link

<b>De-worming</b>	<a href="http://pork.ahdb.org.uk/media/2042/Action-1-Regular-Worming.pdf">http://pork.ahdb.org.uk/media/2042/Action-1-Regular-Worming.pdf</a>
<b>Enzootic Pneumonia (EP)</b>	<a href="http://pork.ahdb.org.uk/media/2026/Action-6-Enzootic-pneumonia.pdf">http://pork.ahdb.org.uk/media/2026/Action-6-Enzootic-pneumonia.pdf</a>
<b>Biosecurity for Smallholders</b>	<a href="http://pork.ahdb.org.uk/media/2754/biosecurity_for_smallholders.pdf">http://pork.ahdb.org.uk/media/2754/biosecurity_for_smallholders.pdf</a>
<b>Farm Health Planning</b>	<a href="http://www.britishpigs.org.uk/pedigree%20healthy.htm">www.britishpigs.org.uk/pedigree%20healthy.htm</a>

De-worming products and their target parasite species (Courtesy: *The Commuter Pig Keeper*)

Active medicine		Doramectin	Ivermectin 1% & 0.6%	Amitraz 2%	Febantel	Flubendazole	Fenbendazole
Trade name example		Dectomax	Ivomec Virbamec	Topline	Bayverm	Flubenol	Panacur
Administration Route		Injection	Injection or in feed	Pour-on	In feed		
<b>ENDOPARASITES (Internal)</b>	Activity against worm type: Roundworm Red stomach Lung Nodular Whip Thread	YES		NO	YES		
	Stomach			NO	YES		
	Kidney			YES	NO	YES	
	Larvae			YES		NO	
	Eggs	NO		YES			
<b>ECTO PARASITES</b>	Lice Mange mites Ticks	YES		YES	NO		

advice would always be to make doubly sure. Ask your vet, or Suitably Qualified Person (SQP) at the agricultural store when purchasing the treatment, as the products stocked may vary from those listed in the table.

All products licensed for use with pigs will have a proven efficacy against the target parasite species, and can only be purchased through a vet or SQP. Any product you can purchase off-the-shelf is not a de-wormer, despite what people might tell you.

## Respiratory problems

AHDB *Action for Productivity* leaflet No.6 focuses on the most common respiratory disease seen in pigs, Enzootic Pneumonia (EP). An unusual species of bacteria called *Mycoplasma hyopneumoniae* is the main cause of EP, but secondary infections can occur as the pig is more susceptible to other problems. It's thought that up to 80% of pig herds have the bacteria present on-farm, either clinically (symptoms seen) with a harsh, dry cough that's worse when they first get up, or sub-clinically (symptoms not seen).

At the abattoir, lesions may be seen starting in the lower part of the lung. The extent of the consolidation caused by these lesions is scored

in each lung lobe, on a scale ranging from 0 (EP lesion-free) to 55 (severe lesions). Feedback on this gives the keeper a good guide to the extent they may have EP in the herd. As lesions can be caused by other respiratory organisms, those found in this are usually classified as 'EP-like' lesions. Specific laboratory testing will be required for a confirmation.

The leaflet provides recommendations for the effective management and control, including advice on vaccination and isolation to reduce susceptibility. However, EP management may be the best that can be achieved in outdoor herds, especially in high-pig areas. The causative bacteria can travel up to 5km on the wind, and vaccination isn't 100% effective. So, in severe cases on-farm, a bespoke plan for management and control will have to be devised.

## Misconception

It's a widespread but erroneous belief that, after being infected, pigs can become long-term carriers – ie the disease exists within the pig, sub-clinically, but the pig will continue to shed the bacteria, causing further infections in susceptible pigs. However, in practice, recovered pigs do develop a strong immunity that, in the sow, will be protective to their nursing piglets.

What can happen is that herds collectively can harbour or carry the infection, which is passed on to the next susceptible batch of pigs; such as among growers once the previously protective, passive immunity has waned after weaning.

The links to the health leaflets mentioned are included here, too, so my advice would be to download a copy of each, and save them all for future reference. ❖



Failure to manage a worm burden properly; ascarid seen in pig faeces at a showground.



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