

Salmonella Vaccine for pigs

By Riki

Recently the VLA Weybridge held a workshop on Salmonella vaccines for pigs with representatives from the pig industry, medicine licensing authorities, research bodies and the pharmaceutical industry to discuss vaccination as an option for Salmonella control.

The urgency for action and new ideas for Salmonella control seems appropriate as the National Control Plan (NCP) will be implemented in only 18 months. In the past, the UK has failed to reduce Salmonella levels in pigs and is still one of the worst offenders in the EU with a prevalence of 21.2% in slaughter pigs compared to the EU average of 10.3%.

The reason for this may be the higher percentage of outdoor production and straw-based systems that provide an ideal environment for Salmonella. However, this should not be an excuse for poor hygiene.

The VLA is promoting vaccines as the way forward in Salmonella control and will soon ask for research proposals to develop a Salmonella vaccine for pigs.

The VMD (Veterinary Medicines Directorate) reminded delegates of the safety issues to be considered when developing a vaccine such as shedding, reversion to virulence of the vaccine agent and the effect on the environment. Another issue may be the lengthy process of vaccine authorisation, which usually takes 6 years. Costs for developing a new vaccine were estimated at around £6 million.

Duncan Maskell from Cambridge University left no doubt that researchers in the UK were easily capable of developing a sophisticated Salmonella vaccine applying newest technologies. However, Steve McOrist from

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Nottingham University dampened optimism by pointing out that Salmonella is not the pig producer's main worry because it is rarely a clinical disease. Interventions would not necessarily directly benefit the pig producer or the pigs. Hence, asking the pig producer to pay for a vaccine and have the hassle of vaccinating, while also stressing the pigs with another vaccine that has no economic or welfare return, is maybe not the way forward. He suggested slaughter houses should play the major role in Salmonella control together with processors and retailers. He was also the first speaker to mention Salmonella vaccines for pigs that are already used in Germany and the USA, but apparently there is a lack of literature supporting their efficacy.

Alex Cook from the VLA reported on the baseline study and highlighted challenges of Salmonella control in the UK, starting with the diagnosis. The meat juice ELISA may be appropriate to monitor national levels, but is less useful for individual farms. With regard to human health, carcass swabs would be more meaningful.

Other challenges the UK pig industry faced in Salmonella control were poor infrastructure, hygiene and biosecurity. Cleaning and disinfection were often done poorly with unsuitable disinfectants, badly used foot dips and ineffective rodent control. It was again confirmed by this study that units with good hygiene, effective rodent control and effective cleaning and disinfection had lower Salmonella levels.

'We may not have all answers, but it is important to ask the right questions and keep asking them'

There is also a dilemma between consumer perception and the reality of outdoor pig production. The consumer perceives outdoors as positive, but doesn't realise that Salmonella will naturally be more prevalent outdoors.

As the meeting carried on, it became more obvious that the ultimate aim of the vaccine was the prevention of Salmonella infections in humans. Therefore Nikolaus Kriz from the European Medicine Agency said it could not be classified as a veterinary medicinal product as this is defined as a substance for treating or preventing disease in animals.

The regulatory uncertainties and a limited UK market (just 5% of EU pig production) may mean a lack of return on investment for animal health companies. This may stop them from voluntarily becoming involved.

At the end, lots of questions remained, but it became clear that hygiene and biosecurity both on farm and in abattoirs have to be sorted out first before vaccination is used as the final tool. The national target set in the NCP in 18 months will demand change and that we act together as an industry.

Garth Guidelines

Autumn Infertility

- 🐷 Serve 15% more sows/gilts now
- 🐷 Daylight length is decreasing, so ensure plenty of light for weaned sows by cleaning lights
- 🐷 Use a denser (less fibre) diet as this helps to reduce metabolic heat production
- 🐷 Double preg check over autumn period
- 🐷 Keep sows and boars cool by providing extra ventilation. Also keep stocking densities low
- 🐷 Add Reprocine to AI

Riki's Topical Pig Tip Foot dips

Most disinfectants cannot act on soiled surfaces.

Disinfectants are only useful if visible dirt is removed first, THEN dip your boots in disinfectant

Update on New Products

Ingelvac MycoFLEX and CircoFLEX (Boehringer Ingelheim)

The PCV2 vaccine Ingelvac CircoFLEX is now officially licensed to be used in combination with the EP vaccine Ingelvac MycoFLEX and administered as a single 2ml injection. The two vaccines can be mixed immediately prior to use. The single, low volume injection means reduced stress on the piglet and reduced labour and handling time.

Gripovac 3 (Merial)

Merial has launched the first trivalent flu vaccine. Gripovac 3 protects pigs against H1N2, H1N1 and H3N2. It can be given to breeding pigs or finishing pigs. An initial course of two injections is followed by booster injections in each parity. If sows are vaccinated two weeks before farrowing, piglets are also protected.

Avila Sow (Zinpro)

This trace mineral product helps to optimise foot health and thus improve the lifetime reproductive performance of sows and boars. It is fed at 850 g/t of feed. Please note the 'Gilt Selection Guide' from Zinpro sent with this Pig Issue.

Melovem (Vetoquinol)

This is a new Meloxicam product. It contains the same active ingredient as Metacam but at a quarter of the strength. This makes it cheaper to keep a bottle on farm, and also enables more accurate (and safer) dosing of smaller pigs. It is licensed in pigs for use in non-infectious cases of lameness, but your vet will be able to advise on its use for other conditions.

Please contact the practice if you would like to order any of the products or contact your vet if you require any further information.