



DECREASING GAIN IN P2 BACKFAT WITH A SHORTER TIME BETWEEN THE SECOND IMPROVAC® VACCINATION AND SLAUGHTER

ALTERING THE TIMING OF AN IMMUNOCASTRATION VACCINE (IMPROVAC®) TO REDUCE ITS IMPACT ON ATTRIBUTES OF PIG PERFORMANCE

Project Participants

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Problem

The vaccine Improvac® is an effective means of controlling boar taint without affecting performance attributes up to the second vaccination. While the second vaccination has been shown to increase feed intake and weight gain compared to entire males, it also causes an increase in the depth of P2 backfat which may result in penalties for the producer at processing.

Value for Producers

Reducing the timing between the second Improvac® vaccination and slaughter to two weeks instead of four weeks allows for the control of boar taint levels without increasing the depth of P2 backfat. This keeps the pigs lean at slaughter. Not only will this reduce the penalties at processing for pigs with high P2, but it will also ensure boar taint does not have a negative impact on consumer experiences with pork.

Secondly, there is more flexibility for producers; if pigs reach slaughter weight two or three weeks after the second vaccination, they can be sold as being free of boar taint at that time, rather than being held back for additional time. Not only does this save on feed costs for those pigs, but it also reduces penalties at processing for weight.

Regardless of when the second vaccination is given, there is reduced aggression amongst pigs; this improves animal welfare, improves pork quality, and also reduces losses at processing due to trimming of injured skin/meat.

Research

Improvac® manufacturers and suppliers recommend the second vaccine be given to pigs four weeks before slaughter. This study aimed to measure the effects of providing the second Improvac vaccination at different times (0, 2, 3, 4, and 6 weeks before slaughter) on pig performance, carcass characteristics like P2 backfat, and on the incidence of boar taint in the pork.



Background

Boar taint is an unpleasant odour and flavour detected in the cooking of pork from entire male pigs and has become a limitation to the consumption and demand of Australian pork. As a male pig ages, the hormones androstenone and skatole, which contribute to boar taint, increase in concentration.

Improvac® immunocastrates male pigs while still allowing most of the same performance attributes as entire male pigs. Improvac® use consists of a primary injection provided at about 10 weeks of age and a second vaccination provided at 4-5 weeks before slaughter.

Results

- The depth of P2 backfat increased as the time between the second vaccination and slaughter increased. Pigs vaccinated two weeks before slaughter had an average P2 fat depth of 11.5 millimetres, whereas those that received the second vaccination six weeks before slaughter had an average P2 of 13.8 millimetres.
- Carcass lesions were also lower in the animals that were vaccinated with Improvac® regardless of when the second vaccination was given, indicating the very rapid effect it has on reducing aggressive behaviour.
- The second Improvac® vaccination can be moved closer to slaughter (2-3 weeks instead of 4-5 weeks) and still prevent boar taint.
- Some animals treated with Improvac® and free of boar taint still had testes of a similar size to entire males (controls). This suggests processors may need to consider other screening methods besides testes width and weight to determine the presence of boar taint.
- Pigs should certainly not be sold any sooner than two weeks after the second vaccination as there is no data to support freedom from boar taint.

NOTE: Improvac® is a prescription product and using it in the way described above should only be done with veterinary approval, because it does go against manufacturer's instructions.

More Information

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