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What's new with PRRS on commercial farms?

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Introduction

PRRS remains the most feared, talked about, and worried about swine disease at the commercial level today, not only in our practices but worldwide. Isolation/acclimatization, PRRS vaccination, pig flow, and monitoring herd status have effectively controlled PRRS or significantly reduced clinical outbreaks to minor concerns for most Swine Vet Center clients. However, these control programs are easier to write than to enact.

Coordination of pig flow, clean/dirty transportation, people flow, vaccination schedules, biosecurity measures, herd monitoring, blood testing, management of controlled PRRS infections, and boar training in isolation are among the concerns that frustrate farms. It often takes an incredible amount of time on the part of the producer and the veterinarian to keep the disease "under control" on the farm.

Most decisions made on farms today must consider what the consequences will be regarding the PRRS status on the farm from a new barn, different pig flow, a change in vaccination protocol, etc.

Practice background

Swine Vet Center works with a large client base in southern Minnesota and northern Iowa. Most of our clients have adopted AIAO on all of their production and most have also adopted some aspects of multi-site production. Over half of our sow base commingles weaned pigs from multiple sow farms at 16–21 days of age into full multi-site production. Most nursery and finishing facilities that flow from these commingled systems utilize AIAO pig-flow by site.

Thoughts, programs, findings, research and recommendations at the commercial level in our practice

Understand that PRRS is a very dynamic disease and what we think is working today may not work in the future, so

it follows that our thoughts and current recommendations may change in the future.

Isolation concerns

PRRS-negative breeding stock 6 months of age brought into a PRRS-positive farm

These animals probably don't have enough time with the normal 45–60 day isolation period to become infected and "cooled down." The system will break down through the introduction of "hot" pigs. We recommend bringing in younger animals and giving them 90–120 days to cool down.

PRRS-positive breeding stock 6 months of age

Blood testing must be done in isolation to determine the PRRS status of these animals (i.e., are they cooling down or still infective?). We recommend waiting to bring the animals into the herd until all show a drop in the PRRS Elisa titer of at least 0.500. It may require 3–4 blood tests and up to 125 days to get a group cooled down. PCR checks on blood and/or tonsil tissue have helped us feel more knowledgeable about the status of the group.

Isowean breeding stock

Don't bring in any new bugs. Not enough people are isolating these isowean pigs for at least 2–3 weeks, that is, the time it takes to stop diseases such as TGE, PRV, swine dysentery, and others.

Isowean pigs in isolation need to be acclimatized soon after arrival. If the isolation/acclimatization program is working, this becomes difficult because you run out of material (PRRS virus).

PRRS flare-ups (identification)

PRRS flare-ups are easier to observe, monitor, and control on an isowean, multi-site production sow farm.

- Clinical signs on sow farms include abortions, stillborns, mummies, and increased preweaning mortality. They can be subtle but will indicate which sow farm needs to be checked. Blood testing the sow herd at different stages of pregnancy and across different parities will often let you know if the herd has destabilized for PRRS.

- Blood testing nursery pigs 1–2 weeks into the nursery (i.e., 4–5 weeks of age) by farm will tell you which farm has destabilized.

PRRS flare-ups (duration)

Shedding is or can be sporadic. The farm won't consistently send PRRS-positive pigs to the nursery system every week, or the farm may send PRRS-positive pigs for only a short time period (a so-called PRRS "blip"). Graphs and charts over a 5–10 week period will be presented to more fully describe this phenomenon.

Elimination of problem farms

In commingled systems with multi-site production, it is very advantageous to identify the problem sow farm and remove it from the system until that farm can be stabilized again. This is often accomplished by using older nursery facilities run continuous flow.

Vaccination programs

Most all commercial sow farms vaccinate for PRRS if they are in a pig-dense area. We recommend vaccinating incoming breeding stock twice, 3–4 weeks apart, at least 2–3 weeks prior to entering the farm. The breeding herd vaccination program is usually the "6–60" protocol, although approximately 30% of the herds are now on either the "6" or the "60" protocol. Piglets are only vaccinated during or shortly after a PRRS outbreak or when in a commingled system with one PRRS-positive farm and they are unable to be separated out. In that case, all piglets are vaccinated until the sow herd is stabilized again. This protocol (1/2 dose of modified live vaccine given at 10–15 days of age) has been very effective in our experience.

Controlling secondary diseases

The "cleaner" the farm is, the fewer problems observed when PRRS is active. Multi-site production has helped significantly in reducing the number of secondary disease problems on farms.

Boostering PRRS vaccination

Clients (and often veterinarians) still feel very comfortable and confident that when a herd starts to flare with clinical PRRS, boosting the vaccine can reduce the "active" period to just a couple of weeks. The most common protocol is to booster animals with modified live vaccine from 4–7 days pre-farrowing through the next 4–8 weeks. This works best when the herd has been previously vaccinated and/or naturally exposed.

Mixing vaccine brands

The differentiation of PRRS strains is a much discussed topic in the industry today. When a PRRS vaccination program (modified live vaccine) combined with isolation/acclimatization is not totally stabilizing a farm or if a herd breaks with clinical PRRS over a vaccination program, we often recommend switching to the other commercially available modified live vaccine. We often rotate the two vaccines in an attempt to get potentially better strain cross-protection.

Remember that every weak, dome-headed, "fuzzball" pig is not necessarily a PRRS pig. Diagnostics are paramount in leading you to formulate a control program for any disease.

