Brent Jones

BY BERNARD TOBIN

COULD FILTERING BARN EXHAUST AIR help the fight against PRRS?

Two Ontario veterinarians have set out to test the idea and find a reliable way for producers to put it into practice

When managing a Porcine Reproductive and Respiratory Syndrome (PRRS) outbreak, putting filters over the air intakes of nearby PRRS-free barns is one method that could limit risk of the disease spreading.

In some cases, the disease travels through the air and this approach to air filtering provides a degree of protection. But would it be more effective, from both a containment and cost perspective, to filter outgoing air from the infected barn rather than filtering incoming air at multiple neighbouring farms?

That's a question veterinarians Brent Jones of Southwest Ontario Veterinary Services and Tim Blackwell of the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) are attempting to answer.

"For example, if there were three PRRS-negative herds in close proximity and one of those herds breaks with PRRS, it might be cost-effective for the two negative herds to work together and buy filters to put on the barn with the outbreak," explains Blackwell.

"This could prove to be a practical and portable system that we could put in place in the case of a PRRS outbreak," adds Jones. "We know how to eliminate PRRS from a barn. We just need to effectively deal with the disease during the time we are working to shut it down. Filters are washable and reusable, so we could redeploy them in another situation."

The challenge now for the veterinarians is to find a practical approach to using filters that would transform their theory to a functional, reliable option for producers.

To test the hypothesis, Jones has been evaluating the performance of Noveko brand Protection 15 air filters on a mechanically ventilated swine barn. The 1,200 sow farrow-to-wean operation was diagnosed in the early stages of a PRRS outbreak in November 2010. The farm is 3,000 metres from a breeding stock operation that is PRRS-naive, but considered high risk for infection.

Early tests revealed that filters affixed to the exterior of exhaust fans tended to clog up and could potentially burn out the fans due to the extra work required to push internal barn air out through the dusty filters.

The filters have also been tested on the inside of the barn to make cleaning easier and to eliminate the need to work outside in inclement weather. This approach also proves challenging due to the dust and dander. Other options are being explored and Jones is confident a solution can be found.

"Filtering exhaust air could be very cost-effective where you have a break in a PRRS-negative area," says Blackwell. "It requires some co-operation and understanding among the neighbours, but I think it's a great idea. We now need to determine whether there's a practical application."

PHOTO BY MARTIN SCHWALBE

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