

SWINE HEALTH

Title: Elimination of PRRS virus from two regions in Minnesota – NPB #05-182

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Scientific Abstract:

The necessity for a regional approach to PRRS control is self evident from the collective experience of veterinarians and producers who have long been frustrated by the recurrence of the disease. The objectives of this project were to eliminate PRRS virus from two regions, to describe methods employed by producers to eliminate PRRS virus from their herds and document the accompanying costs, to conduct biosecurity audits of involved farms, and to employ techniques of social network analysis to analyze pig movement patterns to understand the potential importance of area pig flow to the feasibility of elimination and maintenance of area freedom from PRRS.

We selected two regions in Minnesota, mostly based on apparent willingness of the producers and veterinarians to participate. We conducted quarterly producer meetings, shared new research findings, visited problematic herds, paid for diagnostic testing in one of the regions (eastern Rice Cy) and encouraged producers and veterinarians to keep moving towards regional elimination. Biosecurity interviews were conducted with veterinarians and owners of sow farms. Also, data on all movement of pigs among sites were collected and analyzed.

Although PRRS virus has not been eliminated from either region, progress has been made. Increased communication and sharing of diagnostic data has occurred among producers and veterinarians. Several sow herds in both regions have eliminated the virus at substantial expense. However, there are individual herds in both regions that have failed to make progress, in large part due to lack of motivation. They either perceive PRRS virus as having little cost to them or are content with the sow herd being periodically stable; that is having no diagnostic indication of shedding virus to weaned pigs.

This study has indicated that regional elimination of PRRS is possible. However, selection criteria of the region need to be understood and carefully adhered to. These include: (1) excellent veterinary knowledge & leadership, (2) few positive or variable PRRS status pigs entering the region for nursery or finishing, (3) the majority of producers are willing to monitor their PRRS status and eliminate virus, and (4) there is good collaboration with people with exhibition pigs.

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