

A tool
to analyze
the costs
of PRRS

Dr. Zvonimir Poljak

and benefits intervention strategies

by TREENA HEIN

With the development of a best practices business management tool, pork producers and veterinarians will be better equipped to assess the effectiveness of different PRRS control strategies available to them

Porcine Reproductive and Respiratory Syndrome (PRRS) has been a problem for Ontario's hog industry since the early 1990s. In 2004, new and more virulent PRRS virus (PRRSV) strains appeared in Ontario, increasing the devastation caused by this disease.

There are numerous approaches to dealing with a PRRSV outbreak. However, says Zvonimir Poljak, professor in the Population Medicine Department of the University of Guelph, "to this date, there has been no quantitative way to assess the cost/benefits of the available interventions."

Poljak, therefore, started a project in 2008 to address these industry concerns by providing a best practices business management tool for use by pork producers and their veterinarians when assessing PRRS control strategies. The project was created in co-operation with, and for delivery through, OSHAB (the OPIC Swine Health Advisory Board), a committee of the Ontario Pork Industry Council (OPIC). OPIC is a volunteer industry organization which has been working since 2006 to understand how PRRSV is moving and changing among herds in Ontario.

"The severity and frequency of the occurrence of this disease indicates that a tool of this nature would be highly valuable to producers and veterinarians in helping them to quantitatively assess the available options," says Poljak. "Use of this tool will also allow a more accurate estimate of expected costs based on industry averages, which will assist in deciding what strategy to implement."

Initial activities within the project included the establishment of criteria to define the start and end of a PRRSV outbreak, allowing for consistency of analysis among all those involved. "We then listed and categorized the PRRSV interventions currently used within the industry," notes Poljak, "and identified the production parameters to be assessed in the cost/benefit analysis. These include factors such as pigs farrowed per sow per year, pigs weaned per sow per year, mortality rate and others."

The next steps in the project will be to assign financial values to

variables assessed, such as a dollar value for each weaned pig. "We will then collect historic data from veterinarians in Ontario and Quebec including detailed diagnostic and treatment information," says Poljak. "Collation of industry data generated from programs such as PigChamp will follow, which will assess the benefit derived from the available

PRRS interventions under different management regimes."

These data will subsequently be cleaned, entered, processed, and analyzed, using both a statistical program and a risk management program and consulting as appropriate with industry experts. "All of this work will then culminate in the development of cost/benefit ratios for the various interventions," says Poljak. New data and new treatment categories will be added to the tool as PRRSV control evolves. The project, including data gathering and analysis, will continue in 2009.

Because Ontario and Quebec experience severe and frequent clinical outbreaks of PRRSV, the project will involve producers and veterinarians from both provinces. Poljak observes that the project may have value at a national level as well, because it establishes a methodology to assess the cost/benefits of interventions for all diseases affecting pig production.

Information from the project will be disseminated through quarterly OPIC and OSHAB newsletters and will also be posted on the OSHAB website. Updates will be translated into French for dissemination to Quebec producers and veterinarians. Ontario swine veterinarians will be reached through the Ontario Association of Swine Veterinarians (OASV) to facilitate data collection and provide them with information to use with their clients.

Project updates may also be provided to producers through the Ontario Pork newsletter and various trade or industry publications. Producers and industry partners received an update in December 2008 at the annual "Big Bug Day," a joint OSHAB and OASV conference which provides information on advances in PRRS research. The data will also be available for graduate students to analyze and have their findings published in scientific journals.

"This project will increase the competitiveness of the Ontario pork industry by providing a tool that facilitates decisions based on best management practices, improving collaboration within the Ontario pork industry and building stronger ties between Ontario and Quebec pork producers," says Poljak.

This project is funded in part through contributions from Ontario Pork and by the federal and provincial governments under the Agricultural Management Institute (AMI), an initiative of the federal-provincial-territorial Agricultural Policy Framework designed to position Canada's agri-food sector as a world leader. The Agricultural Adaptation Council administers the AMI program on behalf of the Government of Canada and the Province of Ontario.