

# WCVM: The Future of Food Animal Veterinarians

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The success of the Canadian swine industry over the past forty years is the result of several factors including: sound genetic progress, excellent nutrition, professional marketing, a talented workforce and a healthy national herd. Many of these factors and others are closely related. For example, without a healthy animal, a producer is unable to realise full benefit from high quality nutrition and genetics. Conversely, inadequate nutrition may well affect overall health status. A healthy animal contributes to efficiency and productivity – key components for a highly competitive and sustainable industry in the world marketplace.

Like most inputs for a productive swine unit or industry, health is not a one-time occurrence but rather a continuous system of efforts to achieve and maintain a healthy herd. Veterinarians are a key component of a successful health system. This paper will discuss current and future veterinary needs to ensure the continued success of the swine industry in western Canada.

Approximately 75% of the veterinarians serving the swine industry in western Canada are graduates of the Western College of Veterinary Medicine (WCVM) at the University of Saskatchewan. The WCVM celebrated its 40<sup>th</sup> Anniversary in 2005. There has been a longstanding and strong relationship between the College and the swine industry. In addition to producing outstanding young veterinarians, the WCVM has been involved in research to directly address health and productivity needs of the industry.

In looking to the future, the WCVM is developing a veterinary curriculum, as well as graduate programs, to address the needs of food animal production in 2020. While we are familiar with current animal health programs and needs, it is much more difficult to accurately predict the role of the veterinarian in 2015 or 2020. Yet it is important we do our best if we are to prepare our veterinary students appropriately to address the challenges and needs of the industry in

the future. The questions that we must ask vary from the basic to quite detailed. For example:

- Will the swine industry in western Canada continue to grow?
- What will the industry look like in 15 years?
- How will veterinarians serve this industry?
- Will veterinarians graduating in 2010 require different knowledge and skills as they begin a career that will take them to 2040 and beyond?

Today's graduating veterinarian is highly trained and has attended university for a minimum of six years. They have a wide variety of career opportunities available to them. In order for swine practice to address its needs for veterinarians, the opportunities offered must be competitive. Factors that are important for young veterinarians include: financial remuneration, workplace environments, hours of work and other lifestyle issues, mentorship, and long-term professional growth.

The duties and responsibilities of tomorrow's food animal veterinarians will be quite different than work activities in the past. There will be a decreased demand for technical skills, with routine technical duties accounting for a reduced percentage of daily activities. Increased emphasis will be placed on disease prevention and control (biosecurity), ensuring high production standards and a quality food product (quality assurance programs), and high standards of animal care and animal welfare. In addition, the veterinarian will be a key advisor on issues related to health and safety of workers, and the environmental impact of various management practices on air, water and soil quality. The veterinarian brings broad expertise to the intersect of animal health, human health, food safety and environmental health. While the veterinarian has addressed these issues in the past, the veterinarian of the future will have a significantly increased role in each of these areas.

It is important to remember that there are veterinarians in several different roles that support a successful swine industry. Naturally, we think about the local veterinarian who provides direct service to individual swine units. In addition, there are a number of CFIA veterinarians who provide regulatory services related to exports, imports and control of Foreign Animal Diseases (FAD). Federal veterinarians and in some cases provincial veterinarians provide vital inspection and monitoring services at slaughter. These services are key to sustaining international markets.

Finally, there are the veterinarians in diagnostic laboratories providing critical services to the practicing veterinarians and the livestock producer. Without a strong diagnostic laboratory system, health status would gradually deteriorate and international competitiveness would steadily decline.

The Western College of Veterinary Medicine has always provided a strong, broad base of training to prepare graduates for future unknowns. However in planning our new curriculum, we need to provide the flexibility for students to pursue subjects that will be important for the future. In our current plan for our revised curriculum, we have made flexibility and adaptability key features of the new curricular design.

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As we look forward to the next 20 years, all aspects of food animal production will face major changes and challenges. Many of these are predictable, but likely many are totally unknown to us. The veterinary profession and veterinary medical education will be affected by these changes.

In our planning process, we are making every effort to stay informed of trends and changes in food production, and considering what we need to do to prepare veterinarians for those challenges.

If we take a peek at the future of food animal production, what do we see? What will be the major issues or concerns? And what will be the role of the veterinarian?

First of all, the consumer will continue to desire safe, wholesome, consistent and reasonably priced food products. Not much different than today, but likely with an increased emphasis on food safety and quality. Manufacturers will try to differentiate their product from others based on quality and safety. In addition, I believe the government regulatory environment will continue to expand and increase. This will likely mean further restrictions on the use of medications and chemicals in association with the production of animals and animal products for food. It will also mean improved records on the use of these products.

The veterinarian of the future will be challenged with the prevention, control and elimination of various organisms or diseases in this more restrictive regulatory environment. Potentially new and innovative procedures and medications will need to be developed. Both the veterinary researcher and the veterinary practitioner will have a key role to play in these developments. They must have the foundational training in infectious diseases, preventive medicine, food safety and clinical epidemiology. It may also signal a requirement for expanded training in pharmacology to include veterinary applications of nutraceuticals and so-called functional feeds.

Secondly, there will be an increasing emphasis on animal care and animal welfare. The veterinarian already is playing a significant role in this area as it

relates to a recent addition to the Canadian Quality Assurance program for swine. I expect this to expand as both international trading partners and North American pork processors will increase their requirements for documentation of a variety of animal welfare practices. In some cases, the veterinarian will be key to implementing and adapting these new guidelines to a production unit. In other situations, the veterinarian will play a primary role in documenting adherence to good practices and guidelines.

Production units of the future likely will face enhanced guidelines related to environmental impact. These guidelines may affect practices and procedures, facilities and equipment, feeding and water usage, and certainly disposal issues. I see the veterinarian having a key role in the development of guidelines, as well as the implementation of them on production units.

With the increased emphasis on occupational safety and public health, the swine unit will be viewed more as a workplace. Issues related to the long-term health and safety of the workers will become more prominent. Also, concerns that concentrated livestock populations may serve as a reservoir of infection will likely arise. Again, the veterinarian will be the primary health care professional to provide advice and recommendations on many of these issues.

Finally, the veterinarian, as with all modern professionals will need excellence in communication skills. The veterinarian will need to be able to communicate their knowledge and recommendations to achieve success. Outstanding interpersonal skills will be needed to work with other professionals and achieve success and sustainability for the industry.

In summary, the swine production veterinarian of 2020 will have quite different responsibilities and duties than today's veterinarian. We cannot accurately say what they will be, but we must do our best to predict these changes and prepare accordingly. The need for a well trained professional, with a solid grounding in the basics will be important for the adaptability and the success of the industry.

## ■ Information Sources

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