

Canadian Animal Health Sector – An Overview of the Challenges and Opportunities



Industry Overview

The animal health industry in Canada services a combined companion and production animal population, which faces both challenges along with opportunities. Our animal pharmaceutical industry represents approximately 2.5% of the global industry, within the world's second-largest land mass (larger than the US), while having a small human population which is 10.5% that of the United States.

This paper explores factors impacting the Canadian animal health business and the implications these will have on it and its customers. It considers the factors influencing the changing paradigms in the animal health sector as it relates to the generation of sales, while also elaborating on our strengths.

1) Factors Impacting Animal Health Product Sales

a) Economics

The Conference Board of Canada reported that consumer confidence declined in 2013. It found Canadians to be concerned about their finances and job creation, with a majority saying it was a bad time to make a major purchase. The Conference Board also reported that consumer debt at the end of 2013 was at an all-time record of 163.7% of income. This means that for every dollar earned, Canadian families owe \$1.64. Canadians have been urged to reduce spending and pay down debt at a time of low interest rates, but to no avail. In the next two years it is expected that the global economy will be on a lower growth track, with Canada's GDP to stay around 2.2%.

The Canadian economy is not without good news, though. The Organization for Economic Co-operation and Development (OECD) forecasts that the Canadian economy will be one of the top performers within the G7 countries. So while Canada is likely to see declining retail activity, and indeed from the perspective of the animal health sector reduced demand for veterinary services and products, it may be less impacted than other global markets.

b) Trade

US trade irritants around Country of Origin Labeling (COOL) and other issues beyond agriculture have led Canada to look for increased trade and diversification away from the US, which is our major trading partner. The federal government recently announced that it completed a trade and investment deal in principle with Europe, the world's largest common market. This could lead to export gains once the agreement is implemented. Canada also entered into the Trans Pacific Partnership (TPP) multi-lateral discussions targeted at expanding exports to large countries in Oceania, Asia and South America. The 12 countries involved in the negotiations represent 40% of the world's economy.

While there is a potential for net trade gains due to these

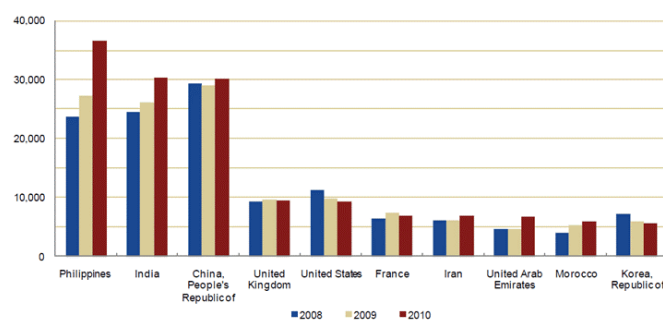
negotiations, there likely will be sectors which lose as a result. Certainly there are concerns within Canada's supply managed sector about the potential for it to be dismantled. Any potential changes to supply management of agriculture would be phased in over time to allow for a stable transition. That being said, our federal government is reluctant to force change within the supply managed industries due to this sector's political strength and economic stability. So in the near term it is expected that trade in red meats will remain stable, with limited growth until implementation of the new European trade deal, and resolution of trade irritants such as COOL and Canada's use of production enhancers.

Canada will continue to expand its trade agreements globally. Our nation has a positive image internationally in that we are able to produce safe, high-quality food to meet the various needs of our export markets.

c) Population Demographics

i. Immigration

Canada has a small population of 35 million people comprised of a broad ethnic mix. Immigration has been increasingly important to growth in the Canadian population. The number of foreign-born persons has been steadily increasing in recent years. From 1986-2006 the number of foreign-born persons rose from 3.9 to 6.2 million. If current immigration trends continue, then the proportion of immigrants in Canada could be approximately 22% by 2017. China, the Philippines and



Immigration in Canada

India are the leading sources of new immigrants to Canada, with these three countries representing 36.7% of all new immigrants in 2012. These immigrants do not come from a tradition of pet ownership, although there are recent reports in terms of the growth of pet ownership within China. According to Packaged Facts consumer survey data, households of minority populations are slightly less likely than average to own pets. It is predicted therefore that the population growth of humans will outstrip the population growth of companion animals in the future.

Market research focusing on first- and second-generation new Canadians from the Indian sub-continent and China indicates that they are less likely to own pets, and those

that do tend to own smaller dogs, and spend less on the pet. Different from western markets, ownership and care of these pets is not generally considered at our societal level of 'pet parents' and 'fur kids'.

In terms of the impact on protein consumption, from the standpoint of China, India and the Philippines it should also be noted that these immigrants are coming from backgrounds of having lower per capita meat consumption than does Canada. In 2009 Canadians consumed 94.3 kg of meat per person, whereas consumption in China, India and the Philippines was 58.2, 4.4 and 33.6 kg per person, respectively.

ii. Aging Human Population and Animal Ownership

The Canadian population is aging. From 1956-2006, the median age of the Canadian population went from 27.2 to 38.8 years. By 2056 the median age is expected to reach 46.9 years. It is anticipated that by 2015 the proportion of elderly will exceed the proportion of children in this country.

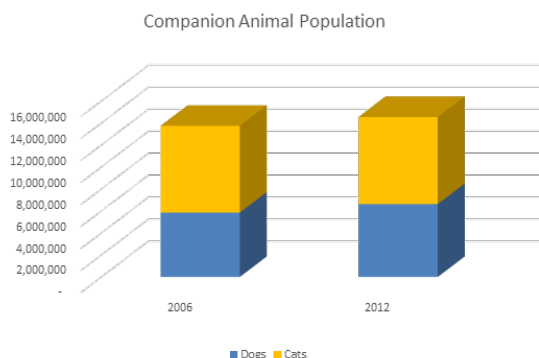
In 2013, animal ownership rates were highest, at 75%, among 45-54-year-olds, but declined with age to 48% for 55-64-year-olds, and to 39% for those over 65. The data shows that pet ownership declines for those in the 55+ age category. However, this older segment of the population tends to be financially stable. This allows veterinary practices the opportunity to focus on increasing pet medicalization rates, additional visits to the clinic, and improved treatment compliance with this segment of the population.

Age	Dogs	Cats	Other	Any
18-24	24	27	15	56
25-34	37	43	11	63
35-44	32	44	4	59
45-54	46	47	11	75
55-64	29	33	9	48
65+	20	22	3	39

Canadian Pet Ownership Rates by Age Brackets, 2013 (percent)

d) Limited Growth and Aging of the Canadian Animal Population

Canada is home to approximately 6.6 million dogs and 7.9 million cats, with about 9% of Canadians owning other types of pets such as fish, small mammals, birds and reptiles. It is not expected that there will be tremendous growth in pet ownership due to economic uncertainties and population demographics related to immigration and aging.



"The demographic profile of Canadian pets shows that 35% of cats and 33% of dogs are over 8 years old and could be considered "geriatric." Less than 8% are under 1 year old.

[Reference: Perrin, T. (2009) The business of urban animals survey: the facts and statistics on companion animals in Canada." Can. Vet. J. 50(1):48-52.]

In addition, the companion animal population is aging. The demographic profile of Canadian pets shows that 35% of cats and 33% of dogs are over eight years old and could be considered "geriatric." Less than 8% are under one year old. With this aging pet population comes the fact that a number of pet diseases increase in prevalence with age, including arthritis, cancers, behaviour and neurological issues, etc., requiring new medicines, diagnostics and services to maintain the quality of life for these elderly dogs and cats.

The food animal side of the industry is also expected to have limited growth in numbers. Production controls and domestic product pricing are critical components of Canada's supply management regimes for dairy, poultry and egg production. These sectors of the food animal industry produce product to meet domestic demand. The red meat sector of agriculture on the other hand is export-oriented. Unfortunately, due to the incidences of diseases such as bovine spongiform encephalopathy in cattle, and, circovirus and porcine epidemic diarrhoea in hogs, combined with poor prices and trade issues around the use of production-enhancing products (zilpateral, ractopamine) and Country of Origin Labeling (COOL), there has been 5-6 years of shrinking herds that have only just stabilised. It is expected that there will be continued rationalisation and consolidation within the beef and pork feeding and packing sectors. However, with the shrinking herds there is market strength for cattle and hog producers which will likely translate to increased use of animal medications to keep animals healthy and eventually herd expansion.

e) Veterinary Practice Trends

A large number of factors are impacting the practice of veterinary medicine. These include:

- The uncertain Canadian economy and limited potential for increased numbers of pets and food animals are challenges facing veterinary practices. There is also a sense that in some regions there is a saturation of veterinary practices which drives practice incomes down due to competition.
- The gender shift of veterinarians from male to female. The Canadian Veterinary Medical Association (CVMA) reports that there were 12,547 veterinarians in Canada in 2013, with 6,594 being female and 5,953 male. This shift is thought to put greater demands on career/life balance for practitioners, leading to limited interest in practice ownership and greater interest in flexible time.
- The shift from food animal to companion animal practices. Of the 3407 practices in Canada, 370 are

reported to be large animal, 2106 companion animal, and 931 mixed animal practices.

- From an education perspective, in 2014 there were more non-Canadian-trained veterinarians licensed in Ontario than Canadian-trained veterinarians. The shift in demographics results in a saturation of clinics in Ontario with fewer pets per clinic and declining fees for service resulting from the new clinics entering the market.
- The above changes are resulting in new business arrangements being made whereby practice chains are established between multiple clinics in an effort to gain management and service efficiencies, to ensure the best margin to the practice.
- A final factor of note that influences practices is the fact that the sale of veterinary clinics by baby boomer veterinarians is the best way for the owner to realise the equity in the practice. In larger urban centres in today's market, the real estate value of the clinic can be greater than the value of the veterinary practice, often begging the question, "is it veterinary medicine or real estate driving the consolidation?"

With all of these uncertainties, it is predicted that more challenges will lie ahead. VPI Veterinary Economics Financial Health Study, 2014, concluded that "the veterinary community will have to make dramatic and difficult changes to retain a middle class standard of living." Impact Vet market research further revealed that pet owners are increasingly relying on "Dr Google" for the diagnosis of conditions, asking more challenging questions to veterinarians regarding their medical recommendations, or not visiting the clinic at all.

Given these economic drivers and changes within the profession, it is anticipated that veterinarians will attempt to increase their revenue line using other products and services, including:

- the development of pet wellness programmes (that include consultation, diagnostics and pet care products) ,
- the increased use of diagnostics to work up clinical cases,
- the increased use of prescription diets only available through the veterinarian, and
- other creative practice growers including the establishment of animal spas, etc.

Given the veterinary needs associated with these animal health products and services, the animal health industry is in a position to develop and supply these new products and services while providing continuing education to meet these various needs.

f) Regulatory Climate

From a regulatory perspective, both of Canada's pre-marketing risk assessment bodies for pharmaceuticals (Veterinary Drugs Directorate) and biologicals (Canadian Food Inspection, Veterinary Biologics) are competitive in the services they provide with similar agencies in other

developed countries of the world. This is important in that animal owners and veterinarians need access to the same health management tools as their counterparts in other countries. Both Health Canada and the Canadian Food Inspection Agency have taken measures to be able to provide a submission review service to ensure product availability that is efficient and effective to that of other larger agencies in larger markets. The Canadian Animal Health Institute (CAHI) and its members have a good working relationship with these agencies. That being said, few new products are being developed for the animal pharmaceutical industry globally due to concerns about antimicrobial resistance, and the cost of meeting product regulatory, technical and maintenance requirements as compared to the relatively small product market size.

From an innovation standpoint, Canada has strong patent protection laws for new discovery. The 20+ years provided by Canada's patent law is critical to the success of Canadian pharmaceutical firms bringing new discoveries to the market place.

Importation and use of non-approved animal health products through own use importation (OUI), and the use of active pharmaceutical ingredients (API) in dosage forms or as compounded products, continue to be non-regulated and an area of unfair competition for Canadian drug manufacturers. Health Canada is proposing oversight of OUI and API use as part of its regulatory modernisation process. The new regulation is to be introduced in 2015. An ImpactVet study prepared for CAHI in 2014 estimated OUI and API lost opportunity drug sales in 2011 to be around \$50 million, which is over 10% of total drug sales (\$393 million) for that year. Closure of these loopholes would be beneficial to the market success of Canadian firms.

g) A New Way of Approving Low-risk Animal Health Products
Canada has led the way globally in terms of the development of a mechanism to proportionally regulate companion animal low-risk products (to include natural products) through a streamlined self-affirmation process that defines the composition of the product, assures its safety through the use of a list of low-risk ingredients, and provides oversight to ensure appropriate and adequate labelling. Work is currently underway to develop a food animal version of this programme.

h) Product Distribution and Sales

Sales of animal health products to animal owners are made either through the veterinarian, over the counter to the animal owner, or direct to the food animal producer from the manufacturer. The veterinarian is the key customer for the animal pharmaceutical industry. Veterinary product distribution is largely the function of the five Canadian distributors, which tend to be veterinary owned and provide excellent service to the veterinary community. The distribution model has been stable for decades with product mark-ups generally being held at 12% and the purchasing or buying groups operating within a specific geographical region. There has been some expansion of the geographical territory for distributors in recent years.

Veterinary practices buy product from one or more of these distributors or direct from the manufacturer. In most practice business models, a portion of the services are built into the sale of medications to animal owners. There are some situations whereby product is sold from a pharmacy through veterinary prescription.

i) Potential Non-traditional Product Sellers

The aforementioned distribution situation is ever evolving, with major changes beginning to take hold in early 2000. Consumers have started to look at the price of pharmaceuticals and vaccines being charged by the veterinarian, versus the potential of buying cheaper product from other sources. Much of the trend for buying from other sources is being driven from the US, with major retailers like Costco, Walmart and Target starting to carry animal health products in their pharmacies. Canadians have a history of cross-border shopping in the US for goods, particularly when the Canadian dollar is at or near to par with that of the US dollar. So, US purchase of animal health medications in person or by mail is a practice many Canadian animal owners may consider.

A 2014 study commissioned by the Canadian Animal Health Institute (CAHI) examined purchasing trends by animal owners. One of the study's findings was a growing trend toward cross-border shopping for animal health products by individuals living within one to two hours of the border.

It should be noted that Canadian provincial veterinary regulations enable animal owners to purchase prescription medications from sources other than the prescribing veterinarian. In many provinces the act of veterinary prescribing has been separated from the act of drug dispensing, whereby the veterinarian is required to issue a prescription for an animal, herd or flock. The animal owner can then choose to buy the product from his/her veterinarian or look to purchase it elsewhere through other sources.

E-commerce is now starting to be a marketing force that consumers are gaining comfort with for their product purchases. For example, Amazon.com operates in over a dozen countries around the world. The Amazon website says, "we strive to become Earth's most customer-centric company, we constantly look for new ways to innovate on behalf of our different customers: individuals who shop our global websites, merchants who sell on our platform, developers who use our infrastructure to create their businesses, and creators of the books, music, films, games and other content we sell through our websites. We believe that our greatest contribution to the good of society comes directly from these core business activities". A number of companion animal health products are now listed on Amazon's Canadian website.

j) Consumer Attitudes

A challenge for the animal health sector is to address new consumer demands. Today's consumer is removed from agriculture, with agriculture representing less than 3% of the total population. Consequently, our consumers often

lack knowledge of the rationale behind modern production practices. With this, it is human nature to fear the unknown. Consumers have a strong voice and are putting demands on agriculture around animal welfare and food safety. Use of gestation crates for sows, eliminating cages for egg-layers, and rearing of animals without the use of antibiotics, are examples of areas of focus for animal activists, and, in public communications from media, food retailers and the restaurant trade. These types of messages are being heard by agriculture and resulting in changes in practices, along with the evolution of niche markets, e.g. eggs from cage-free layers, chickens fed a vegetarian diet, and antibiotic-free beef.

Consumer activism is a given, but so too is the fact that global meat production is rising. It has tripled from the 1970s and risen by 20% since 2000. The main determinant of animal protein consumption appears to be wealth. As developing countries grow wealthier, so too does their demand for food animal protein. The greatest increases in production will be in poultry and pigs as well as eggs and milk.

2) Canada – Our Strengths and Opportunities

Canada has a number of strengths that will provide opportunities for growth to the animal health sector as they work towards meeting global food demands and keeping our pets healthy. Our nation is resource-rich in that we have the land mass for crop production and access to abundant fresh water that can support increases in animal production.

Canada has the infrastructure to support growth in food animal production. We have stable governments and regulatory regimes that are supportive of safe food animal production. Additionally, the sector is supported by a highly competent veterinary profession, producer-driven quality assurance and traceability programmes, plus transportation networks that service both domestic and export product needs.

Canada has a long history of veterinary excellence, with the University of Guelph having the oldest veterinary school in North America. Other veterinary colleges exist in the provinces of Saskatchewan, Alberta, Quebec and Prince Edward Island. They are world-renowned for producing highly-skilled veterinary graduates and for their research capabilities.

Besides, Canada has world-recognised agricultural colleges that are often associated with the veterinary colleges. Our agricultural colleges are based in British Columbia, Saskatchewan, Alberta, Manitoba, Ontario, Quebec and Nova Scotia, and have a long history of knowledge transfer to agrolgy students, as well as competence in animal production and systems research.

Building upon this strong agriculture, veterinary and life science infrastructure, Canada has a large number of strengths in terms of our ability to innovate to improve the health and welfare of animals, and, in creating economic value back to its various stakeholders involved in the caring of animals. Our ability to innovate and drive the development

- An attractive environment for entrepreneurs (using the support as described above) to establish a start-up company by typically assembling a lean team of experts, readily available in Canada, and dedicated to innovation and the creation of value for the ultimate end user of the product.

Taken together, Canada offers an attractive location to establish a new research platform, or a new research-intensive animal health company, given the myriad of enablers including: the available infrastructure and scientific/product development expertise, long periods of patent protection, attractive non-dilutive government funding opportunities and SRED tax credits, and a market place eager to adopt and utilise new technologies, products and services.

Areas in which Canada has shown, and will continue to show, product development leadership include:

- Food animal therapeutics, vaccines and productivity aids (that may also have a positive impact on the environment and the sustainability/ acceptability of animal agriculture).
- Companion animal therapeutics and vaccines for the young and middle- age pet, as well as the aging pet product market (for the management of arthritis, cancers, cognitive/behavioural disorders, etc).
- Wellness products and services for the companion animal (including natural health products, diagnostics, pet food and nutrition, etc).
- Aquaculture products targeted largely at use in salmon and trout as appropriate prevent and treat disease.
- Product to enhance the safety and security of animal protein production when applied either pre- or post-harvest.
- Diagnostic products to more effectively detect disease at an earlier stage to allow for faster, more effective interventions.
- Use of veterinary and animal production apps, big data and cloud-based computing to more effectively and efficiently raise animals.

While the Canadian animal health industry is relatively small in terms of market size, as compared with the large global business, Canada has played, and will continue to play, a leadership role in developing new products to serve the needs of Canadian and global customers.

The following is a summary of the animal health industry opportunities outlined in this document targeted to encourage further sectorial dialogue among industry partners with a look to being prepared for what lies ahead.

- ✓ The Canadian Economy is targeted to be one of the top performers in the G7 countries which can factor into sustained business strength for Canadian veterinarians and food animal producers.
- ✓ The red meat industry is experiencing record high prices which will likely lead to growth in the beef and

swine herds and increased attention to animal health needs.

- ✓ Global demand for animal-based protein is targeted to grow. Canada has an excellent resource base and image that will support domestic and export needs for safe, high-quality food animal products.
- ✓ Veterinary practices are undergoing consolidation that will help to build dynamic new business models to meet animal owner needs.
- ✓ The Canadian regulatory programmes for animal health products are globally competitive and strive to serve human, animal and environmental safety needs.
- ✓ Federal controls over importation and use of non-approved animal drugs are anticipated and will help to serve consumer confidence in food animal products and equivalency in our food safety standards with that of our trading partners.
- ✓ Canadian regulatory programmes, intellectual property protection laws and research institutions are world-class and support animal health innovation.
- ✓ Canadian veterinarians and food animal producers are internationally recognised for their competence in delivering good veterinary medicine and food animal production regimes, respectively.

3) The Last Thought

The animal health industry has many strengths and needs to collectively look to the future to manage in a climate of global economic downturn and new ways of doing business that are impacting the animal health industry and its customers.

Canada has much to be proud of in terms of our ability to effectively produce animals in our resource-rich and environmentally pristine landscape, while at the same time clearly recognising the value of the pet to society. Keeping our eye on the end user and the distribution system will be critical as we work to meet their respective needs, and to thereby ensure the ongoing viability and growth of the Canadian Animal Health industry.



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animals healthy and food safe while contributing to the economic viability of animal farmers. Liaison and communication activities with regulatory authorities, producer groups, veterinary associations, research institutions and the media are important in her role.

Jean serves on a number of agricultural Boards and has a love for equine sports. She lives with her husband and son on a farm near Guelph, Ontario.

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