

The costs of animal diseases and societal benefits from healthy animals

IFAH annual report 2012



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About us



IFAH represents both animal health companies (10) and national/regional animal health associations (27). These associations comprise both local small and medium-sized enterprises and international companies. Overall, these companies represent approximately 80% of the global market for animal health products.

IFAH is led by Executive Director Barbara Freischem and headed up by President Juan Ramón Alaix, CEO of Zoetis.

IFAH is an international non-profit organisation registered under Belgian law based in Brussels, Belgium.

The International Federation for Animal Health (IFAH) is the global representative body of companies engaged in research, development, manufacturing and commercialisation of veterinary medicines, vaccines and other animal health products in both developed and developing countries across the five continents.

Why does IFAH exist?

- Foster a greater understanding of animal health;
- Promote a predictable, science-based regulatory environment that facilitates the supply of innovative, quality products into a competitive market place. These products contribute to the supply of safe, healthy food, and to high standards of health and welfare for animals and people.

What does IFAH do?

- Act as a unified global industry voice in dialogue with major international bodies (OIE, FAO, WHO, Codex Alimentarius, etc.), governments, animal health stakeholders, food industry partners and consumers.
- Encourage and assist the development of predictable science-based regulatory processes and standards where authorisation and approval to market medicines is firmly rooted in a thorough risk-benefit analysis.
- Promote international harmonisation of testing requirements for animal health products to facilitate the availability and delivery of new and innovative products worldwide.
- Act as a source of information on the benefits of animal health products for animal health and welfare, food and safety and public health.
- Actively promote the value of research-based medicines developed to the highest standards and authorised according to the regulatory criteria of quality, safety and efficacy.
- Ensure the availability of all classes of veterinary medicines to the benefit of animal health and welfare, and promote their responsible use.
- Provide expertise on emerging diseases and fulfil its role as part of the solution to control these diseases in animals.

A message from IFAH's President



JUAN RAMÓN ALAIX
IFAH PRESIDENT

Welcome to IFAH's Annual Report for 2012. Here you will find an in-depth overview of some of the key activities from the year and learn more about IFAH's work.

As the international trade association and unified voice for the global animal health industry, IFAH has a duty to foster both a greater understanding of animal health issues, and identify and analyse any risks to the prosperity of its member companies. It is a responsibility we are passionate about and one which impacts not only the lives – and livelihoods – of our members but also those of every livestock producer, veterinarian, pet owner and consumer of animal-based food products, right around the globe. *Healthy animals in a healthier world* is truly everyone's issue.

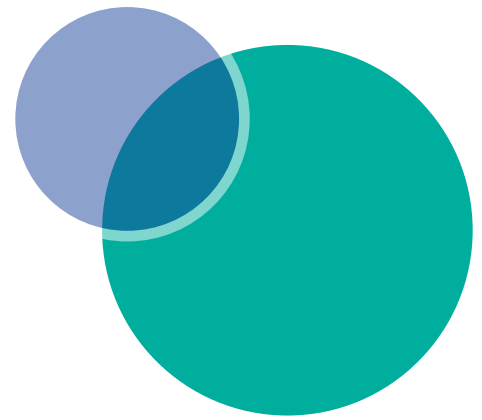
IFAH's role in advocating in this space is becoming increasingly important because, like in so many other industries, animal health is facing considerable economic, social and, above all, regulatory challenges. These factors require the industry to summon all its strength and resources to overcome these challenges.

These core themes of understanding and risk-analysis have been central to the objectives of two major policy initiatives completed by IFAH during the last year. The first of these was the 2011 global benchmarking survey – the fourth in a series of five-yearly global benchmarking surveys - dedicated to taking a closer look at the competitiveness of the animal health industry in five major markets, Australia; Canada; Europe; Japan; and the United States. In this work, we examine the impact of the regulatory environment on the availability of animal health products, analyse the time and costs involved in obtaining a marketing authorisation for any new product market, and understand the effort required to maintain a license for an existing product.

As will be explained in greater detail later in this report, the survey provides what we believe is compelling evidence of the negative effects of excessive regulation on the industry and disturbing indications that, in most regions, the time and cost to market is increasing. The one notable exception is in Canada, where we see encouraging signs that improved consultation and collaboration between regulators and medicines manufacturers are actually reducing costs. What is remarkable here is that the Canadian market can achieve this, while still, most importantly, ensuring the safety and efficacy of products going through the regulatory process. As IFAH noted at the time, the results of this survey provide an invaluable source of data to support informed policy decisions in the continual search for best regulatory practice.



“ IFAH’s role ... is becoming increasingly important because, like in so many other industries, animal health is facing considerable economic, social and, above all, regulatory challenges.”



The second of these notable policy initiatives was the publication, in October 2012, of IFAH’s white paper on the social and economic costs of animal diseases throughout the world. This study looks at three particular conditions: rabies, salmonellosis, and foot-and-mouth disease, and shows that their overall economic impact far exceeds the direct costs of the disease itself. The white paper again demonstrates the importance of a multi-layered approach to addressing these issues. This will involve working closely with other major stakeholders in developing effective disease control and prevention activities based on sound science and an understanding of the economic impact of those changes on the systems concerned. Additional collaborations and further work is planned during 2013.

These programmes are just two highlights from a year of many achievements and I am proud of the Federation’s continued commitment to furthering stakeholder-understanding of the issues affecting animal health. Over the past twelve months, IFAH’s work, and that of its members, has continued to drive forward a very relevant agenda

and lays a solid foundation for even greater endeavours in the year ahead. Thank you for your contributions to this journey and know that by continuing to work together, we can each play a full role in building a vibrant animal health industry and a healthier world for all.

Juan Ramón Alcáiz
IFAH President



A message from IFAH's Executive Director



BARBARA FREISCHEM
IFAH EXECUTIVE DIRECTOR

Juan Ramón pointed out how working collaboratively with other stakeholder organisations is the best way to achieve the ambitions of IFAH for *'healthy animals in a healthier world'*.

With that in mind, much of the collective effort of our association's representatives over the past year has gone into strengthening the existing alliances we have with international bodies like the OIE (the World Organisation for Animal Health) and the FAO (the UN Food and Agriculture Organisation) as well as non-governmental organisations such as the animal health charity GALVmed (Global Alliance for Livestock Veterinary Medicines) and public-private partnerships like the SSAFE (Safe Supply of Affordable Food Everywhere) initiative.

Much as we share common goals and ideals with our partner organisations there will always be differences of opinion. This gap can be narrowed through open debate and a willingness to compromise. In 2012 IFAH has started to initiate open debate on specific topics with our new initiative to commission a white paper on a specific topic and launching it with a roundtable debate. In exceedingly rare cases open debate and willingness to compromise are not enough. A

good example was the decision of the Codex Alimentarius Commission to adopt proposals for maximum residue limits (MRLs) for the beta-adrenoceptor agonist ractopamine by vote. On the face of it, that may sound like a step that has the potential to cause a rift between Codex Alimentarius member countries. However, we feel that the agreement provided reassurance to consumers that the science on health concerns comes first and eventually prevails over the political debate. To the animal health industry it signalled that sound science forms the basis of Codex decisions and that Codex will adhere to its rules even in politically controversial areas.

One multi-stakeholder project made particularly significant progress in 2012, and that is the work on trypanocides in Africa, based on a memorandum for understanding with FAO, but also involving OIE, GALVmed and industry partners beyond our direct membership. The OIE accepted an article for publication that will make up-to-date pharmaceutical monographs on trypanocides to treat African animal trypanosomiasis available to interested audiences. The publication is currently undergoing the OIE peer review but is expected to be made available

on the OIE website in early 2013. Publication of the monographs is one major step which will help to ensure the quality of medicines used to treat the blood-borne parasites, which currently kill around 3 million cattle every year in sub-Saharan Africa. The other step in this process was also achieved in 2012 with the significant support of GALVmed, and that is the appointment of two quality control laboratories in Africa, one for the French-speaking countries and one for the English-speaking countries after a public tender and inspections of the candidates. Training is taking place as this report is being written. Cutting off the supply of potentially useless and even harmful fake and counterfeit medicines will go a long way towards reducing the toll of this disease.

Developing new alliances is an important aspect of our work and so it was with pleasure that we announced in April 2012 that IFAH successfully applied to become an affiliate member of the World Small Animal Veterinary Association, a step which will help us develop ever stronger links with the global veterinary profession that cares for our companion animals. The challenge of the negotiations on a global legally binding treaty on the release of mercury in the

“ Much as we share common goals and ideals with our partner organisations there will always be differences of opinion. This gap can be narrowed through open debate and a willingness to compromise.”

environment has enabled new exciting alliances with additional WHO services, PATH and the GAVI Alliance. The year 2012 also saw a stronger involvement of IFAH in the International Agri-Food Network, the mechanisms that represent the private sector at the UN Committee on Food Security.

Looking at our organisation, the major development achieved in 2012 was the agreement reached on the association's corporate strategy for the years 2013-2015. This strategy will be driven forward by the three existing IFAH working groups known as the Leadership Team, the Regulatory Strategy Team and the Value Team. Their goal will be to develop initiatives in cooperation with key stakeholders in five subject areas - the acceptance of new technologies, combating microbial diseases in animals, the future role of vaccination, environmental stewardship, and advancing the science of parasitology to address problems of antiparasiticide resistance. To achieve these goals IFAH will be seeking input from its member associations and has established plans for a new forum for the interchange of information on topics of interest and advice on best practice.

Clearly, any organisation is only as strong as the sum of its parts and as Executive Director of IFAH, I am grateful for the wisdom and commitment of the association's Board, its corporate members and associations, along with the tireless efforts of our small, but highly effective team of permanent staff.

Barbara Freischem
IFAH Executive Director



The costs of animal disease

Our relationship with animals has been crucial to the success of the human species over the 10,000 years or so in which we have lived in settled communities.

Our livestock help to feed and clothe us; they have provided the power needed to run our machines and to transport ourselves and our goods. And among the very small number of domesticated species there are some that provide us with the comforts of companionship.

So it is not surprising that epidemics of disease in animals can have devastating effects on human societies all around the world. Indeed, our own health may suffer when our animals become sick, not just because of the effects on a vital element in our food supply, but also because many of the disease agents that infect our animals can be readily passed on to ourselves.

Yet our understanding of the real costs of animal diseases to global society is far from complete. And so in 2012 IFAH took an important step to filling in some of those gaps in our knowledge. It commissioned a white paper by the research institution Oxford Analytica, aided by a panel of international experts, on the economic and social effects of three particular conditions.

Those chosen were foot-and-mouth disease (FMD), an illness in livestock that has major economic but no immediate public health significance; rabies, an invariably fatal zoonotic condition that affects both humans and animals; and salmonellosis another condition that can be transmitted between animals and humans, most commonly through eating contaminated food products of animal origin.

All three conditions are present across large swathes of the inhabited world but their economic impact has not always been apparent because of regional variation in livestock value and productivity, and the lack of resources in many parts of the world to adequately investigate the prevalence of animal diseases.





The study, which was presented as an IFAH white paper in October 2012, sought to identify both the direct and indirect costs associated with the three diseases. Direct costs mean not only the obvious losses due to death, illness or stunted growth in affected animals but also the 'invisible impacts' of reduced fertility or the management changes needed when it is necessary to maintain a higher proportion of the herd for breeding rather than food production.

Indirect losses include the funds spent on mitigation and control of the disease, such as the costs of medicines, vaccines and surveillance activities, as well as the cost of the labour needed to carry out these responses. Effects on human health in terms of treatment costs and lost productivity due to illness are other factors included in the indirect costs. Then there are also the

indirect costs to food producers resulting from the loss of access to important markets, the damage from lost consumer confidence and the knock-on effects to other sectors of the economy.

The white paper makes for uncomfortable reading. In the case of salmonella, for example, the study has calculated that the disease costs the US alone around \$3 billion a year. Even with the resources available in a technologically-advanced country to tackle such conditions, progress towards controlling this disease has been painfully slow and there has been no discernible fall in the incidence of human infections during the past 15 years. Only in those countries like the US with a high standard of medical services are there reliable data on the numbers of confirmed human infections and the resulting economic effects. Yet even those figures may significantly underestimate the

costs of the disease if, as seems likely, huge numbers of patients don't go to their doctor for a diagnosis of the cause of their gastrointestinal symptoms.

In the case of rabies, successfully coping with the condition at home is not an option. So in rabies-endemic areas anyone who is scratched or bitten by an animal that might be carrying the virus should seek immediate medical treatment. Yet rabies is still the most dangerous zoonotic infection with an estimated 55,000 deaths every year. Up to 99% of these cases are in rural areas of Africa and Asia where medical services may be a long distance away and prohibitively expensive to access. Tragically, the majority of rabies victims are children. While it is reasonable to focus on the human cost of this terrible disease, it is worth noting that one million cattle die of rabies every year in South and Central America.

"Good governance of public and private components of veterinary services, appropriate surveillance, early detection and rapid response mechanisms are the best actions for animal disease prevention and control, with positive impacts on animal production, health and welfare, as well as humankind."

BERNARD VALLAT
DIRECTOR GENERAL, WORLD ORGANISATION FOR ANIMAL HEALTH (OIE)





"Animal diseases cause considerable economic damage and have a direct effect on the health and livelihood of millions of people. The FAO's strategy for reducing those impacts will involve a multifactorial approach and working in partnership with other organisations such as IFAH."

BERHE TEKOLA
DIRECTOR, ANIMAL PRODUCT AND HEALTH DIVISION, FOOD AND AGRICULTURE ORGANISATION (FAO)

The developing countries of South America, Africa and Asia are also those where FMD remains a scourge and its impact on livestock productivity does much to perpetuate the cycle of poverty in many areas. But even in the developed western economies, FMD remains a significant threat as the UK discovered during the epidemic of 2001. That epidemic led to the destruction of 6 million cattle, sheep and pigs that were infected, lived close to a diseased farm or could not be fed and cared for because of restrictions on transport of livestock in affected areas. The direct costs of that outbreak were estimated at £3 billion (\$4.3 bn) but indirect costs, notably through disruption to tourism, cost a further £5 bn (\$7.2 bn).

The medicines and vaccines produced by the animal health industry have been strikingly successful in controlling many diseases including those that were not part of the IFAH analysis.

An excellent example of successful vaccination was the international campaign led by FAO and OIE against rinderpest which led to the global eradication of that virus in 2011. But the report warns of the significant barriers in the way to replicating that effort with other diseases. "Progress in the control of animal diseases continues to be stifled in many developing areas as a result of weak investments in animal health, lack of capacity and not yet optimal governance of food safety," the report notes.

However, the project has also tried to map a way forward to improve animal and ultimately human health. A vital step toward combating animal disease will be to improve data collection and surveillance methods as well as bolstering veterinary services, which remain inadequate in many countries, it explains.

That responsibility lies with international organisations working with the governments in the countries concerned. But these efforts must also seek to ensure the active participation of farmers and others working in the field.

"A better understanding of the response to regulation needs to be integrated into disease control programmes; and policymakers should endeavour to work with stakeholders such as farmers who are affected by such changes," the report states.

The effective implementation of disease control efforts requires a clear understanding of the institutional frameworks involved, and efforts to develop these frameworks where necessary. Finally, better infrastructure is a prerequisite to ensure the quick diagnosis of diseased animals, complemented by the ready availability of curatives or vaccines.





IFAH white paper on the costs of animal disease



Collaboration between governments, NGOs, vets, farmers and the animal health industry is essential for a successful disease control campaign. In commissioning the study, IFAH intended it to provide a launch point for discussions with other stakeholders to identify what is required to establish effective disease control and prevention programmes.

At the report's launch, IFAH noted that any efforts to deal with the problems of animal disease must be organised on the basis of an international partnership. The organisms that are responsible for these conditions have no respect for international borders and so the disease problems of any individual country will automatically become a concern for its neighbours.

Dealing with animal diseases is made even more challenging because it is a constantly moving target. The threat posed by a particular condition will change with time, and so it is essential that appropriate efforts are directed to monitoring the re-emergence of old diseases as well as the appearance of any new conditions. Effective surveillance will be vital in allowing the animal health industry to respond to disease outbreaks in a timely and proportionate manner.

Capacity building, particularly in the developing world, will be necessary in order to cope with the evolving threats of contagious diseases. Meanwhile in the developed economies, it is essential that the existing defences are properly maintained.

The energy and innovative talents of the animal health industry has done so much to create the high standards of health and productivity that are such a feature of modern agriculture. It will continue to provide the pharmaceutical and biological agents that its partners in the farming and veterinary sectors rely on as well as the regular flow of new products that they have come to expect.

However, IFAH firmly believes that is also important that a suitable environment is created to allow the animal health industry to grow and prosper. That will involve effective and proportionate legislation on the authorisation and regulation of animal health products, as well as consistent application of guidelines relevant to animal health and the movements of livestock and animal products in an increasingly global economy.



"Economics or "the allocation of scarce resources" is vital to the development of veterinary medicine and services. Food safety and food security are the large returns to relatively limited investments."

FAOUZI KECHRID
PRESIDENT, WORLD VETERINARY ASSOCIATION (WVA)

IFAH's achievements in 2012

Publishing its annual report gives an organisation the opportunity both to highlight its successes during the period concerned and to map out its plans for the future. One of the most significant developments for IFAH in 2012 served both these functions. It provided a clear-sighted assessment of the federation's role in the scientific, economic and political environment in which it operates and also demonstrated how it plans to meet the challenges of the years ahead.

IFAH's strategic plan for 2013-15 sets out objectives in three key priority areas that are the basis of its current and future activities. These are: to provide leadership for the animal health industry in its dealings with external bodies; to foster a favourable regulatory environment that supports the needs of both the animal health industry and the general public; and to enhance perceptions of the value of the sector and the contribution that it makes to society. To achieve those goals, the federation's workload is managed by three teams:

Leadership

The Leadership Team took overall responsibility for developing the strategic plan with input from all members and key stakeholders into the preparatory work, and receiving support and input from colleagues on the Regulatory Strategy and Value Teams during the development phase. Under the plan, IFAH will continue a three-tracked strategy of Value to Society, Global Regulatory Framework, and Animal Health Leadership. Under the latter, multidisciplinary project teams will be established to work on initiatives linked to five strategic goals:

- Ensuring regulatory and public acceptance of vital new technologies.
- Safeguarding the future availability and effectiveness of antimicrobial agents in animals.
- Exploring the future role of vaccination in animal health.

- Maintaining high standards in environmental stewardship.
- Ensuring responsible use of antiparasitic agents and developing strategies to prevent/reduce emerge of resistance.

Strengthening ties with key stakeholder organisations will be a major factor in the success of this strategy. That will involve collaboration not only with governmental, agricultural and veterinary bodies but also IFAH's own national and regional member organisations. So at its October 2012 meeting, the IFAH Board agreed to set up a new forum for its member associations, with an annual meeting to coincide with the general assembly, together with several virtual meetings. The first of these meetings is planned for April 2013.





As an organisation which operates under the tagline 'Healthy animals - healthier world', IFAH's role is to demonstrate the importance of healthy and productive livestock in supporting human health. There will be increasing pressure on farmers to provide the animal protein needed for a growing global population. Yet it is essential that extra food can be produced without damaging the health of the Earth. To this end, IFAH joined a collaborative partnership led by the FAO that brings national governments, NGOs and the private sector to work together on the environmental benchmarking of livestock supply chains. This will pave the way towards an agreed methodology to measure the environmental impact of the livestock industry, help assess mitigating measures and look at ways to increase efficiency. In addition, the health of our

companion animals is also a contributing factor to human health and IFAH is working with veterinarians, pet owners and regulatory authorities to assure availability of medicines for pets while assuring appropriate use of these veterinary medicines.

Finally, the Leadership Team has also been responsible for planning, in cooperation with the Drug Information Association (DIA), a major international meeting to examine, under the headline "Developing Global Animal Health Products to Support Food Security and Sustainability"; the key issues shaping the destiny of the animal health industry. The IFAH Board has endorsed the team's plans for the 2013 global animal health conference, which is scheduled for October 17-18 in Washington DC, USA.



"The achievements of 2012 are testament to the commitment of Leadership Team members and their respective companies and associations. Moving forward into 2013 will require similar commitment to successfully implement the objectives we have taken on."

MIKE MCGOWAN
CHAIR, IFAH LEADERSHIP TEAM



"In an evolving and increasingly sophisticated regulatory environment, we welcome the insights gained through the latest benchmarking survey, which will help us to work together with regulators to inform future policy decisions."

FELIPE DOLZ
CHAIR, IFAH REGULATORY STRATEGY TEAM

Regulatory Strategy

Regulatory efficiency - The Regulatory Strategy Team was set up to develop initiatives which will encourage the creation of a regulatory environment based on sound scientific principles. This is essential to generate the innovation which will provide veterinarians, farmers and pet owners with the products needed to maintain the health of their animals.

To assess the current situation, IFAH published the fourth in a series of five-yearly benchmarking surveys on the competitiveness of the animal health industry in five major markets - Australia, Canada, Europe, Japan and the United States. The results provide further confirmation that the animal health industry is heavily regulated and, while there may

have been some progress since the last survey in 2006, significant concerns and challenges remain. Indeed, it could be argued that there have been negative trends over the past five years which outweigh the effects of measures intended to improve the efficiency of licensing procedures.

Canada was the only jurisdiction in which costs and the time needed to receive a marketing authorisation have actually decreased. This was achieved through improved collaboration and consultation between industry and the regulatory authorities. Elsewhere registration costs have grown faster than the accumulated effects of inflation.

These findings highlight the need for a realistic benefit:risk analysis during the evaluation process to provide the assurances needed on product safety without placing unnecessary hurdles in the way of essential new treatments. They also demonstrate the importance of a continued dialogue between industry and regulators and for the latter to identify and implement the best practice approaches identified by other authorities.

National or regional industry associations in those markets examined in the study (i.e., The Animal Health Alliance in Australia, CAHI in Canada, IFAH-Europe in Europe, JVPA in Japan and the AHI in the US) are actively communicating the results with regulatory bodies and other stakeholders.





International harmonisation -

In July 2012, IFAH welcomed the significant progress made in setting standards for residues of veterinary medicines made at the 35th session of the Codex Alimentarius Commission. Having failed to reach consensus on the adoption of maximum residue limits for the beta-adrenoceptor agonist ractopamine, and in accordance with its rules of procedure, Codex members agreed on a vote to adopt the global food safety standard for that substance. Whilst being an unusual and ostensibly divisive step at Codex, it actually provided much needed reassurance that Codex standards remain to be science-based standards, and that Codex will follow its rules in difficult situations. Further progress was made by adopting MRLs for the coccidiostat narasin in cattle, and the antimicrobials amoxicillin and monensin, while draft standards were proposed for the anthelmintic monepantel in sheep.

Codex also approved a priority list of veterinary medicines requiring an evaluation or re-evaluation by the Joint FAO/WHO Expert Committee on Food Additives (JECFA). This list includes zilpaterol, a compound with similar properties to that of ractopamine. This last decision, in particular, was greeted by industry as further confirmation that Codex will respect its own rules of procedure when elaborating global food safety standards.

IFAH further welcomed developments in the trilateral (EU-Japan-USA) VICH initiative aimed at harmonising technical requirements for veterinary product registration. Building on the output from a contact meeting with regulators from interested countries, a VICH Outreach Forum was founded, and convened for the first time in Brussels in June. The VICH Outreach Forum, convened around the timing of a regular meeting of the VICH Steering Committee, was attended by representatives from 14 non-VICH countries and three regional organisations. Its objective was to provide a basis for wider international harmonisation of registration requirements, improve exchange of information and generate more awareness of VICH and its guidelines in countries outside the scope of the existing programme.

Another initiative of major international significance in which IFAH is involved is the memorandum of understanding with the FAO that critically involves the OIE and receives significant support from GALVmed on developing pharmaceutical monographs for veterinary medicines used in the prevention and treatment of African animal trypanosomosis. This is a vector-borne parasitic condition responsible for the deaths of an estimated 3 million cattle annually in sub-Saharan Africa, and which costs a staggering \$4.5 billion a year.



Although medicines are available to prevent and treat the disease, safeguarding animal health is threatened by sales of substandard medicines and often by counterfeit and even potentially dangerous products. Working with local institutions like the African Union's InterAfrican Bureau for Animal Resources (AU-IBAR) and Pan African Tsetse and Trypanosomiasis Eradication Campaign (PATTEC), the project will establish protocols for the quality control and quality assurance of these products.

With funding from GALVmed, implementing a UK government's Department for International Development (DFID) financed programme against African animal trypanosomiasis, two laboratories in Eastern and Western Africa were selected in late 2012 and their staff will be trained to carry out analyses for the assessment of products against these agreed pharmaceutical standards.

Meanwhile, a working group established by the Regulatory Strategy Team is investigating the extent and efficacy of the data protection and data exclusivity (DP/DE) regulations as they affect the interests of animal health companies around the world. The project is analysing the introduction and implementation of such rules in the EU and 19 countries with substantial national markets (i.e., Argentina, Australia, Brazil, Canada, China, India, Japan, Korea, Malaysia, Mexico, New Zealand, Philippines, Russia, South Africa, Switzerland, Thailand, Taiwan, the United States and Vietnam). The survey is being carried out to assess where strengthening of DP/DE principles is needed to develop strategic approaches and messaging on DP/DE, while also recognising the need for regional and national customised plans.

Antibiotics - The Regulatory Strategy Team's Antimicrobials Working Group produced a white paper - 'The common good - Benefits of antibiotics for animals and people' - explaining to a lay audience the importance of antibiotics in controlling bacterial diseases in humans as well as animals. Using antibiotics in farm animals helps to ensure efficient production and the safety of the food supply. Meanwhile, when used in treating pet animals, these powerful and effective medicines can ensure a long and mutually rewarding partnership between humans and animals. Treating sick animals is also part of our moral obligation to the pets and livestock under our care.



However, the report insists that antibiotics are a valuable tool which should be used with care and only when necessary. They are not a panacea to all disease problems in animals and should only be administered as part of a balanced approach to animal husbandry, alongside good standards of hygiene and nutrition and the appropriate use of preventive treatments, such as vaccination.

The animal health industry is resolved to work closely with veterinarians, farmers and scientists from many disciplines in understanding the factors associated with the emergence of antimicrobial resistance. This will help to ensure that this natural phenomenon is kept under control to preserve the efficacy of antibiotics for future generations. In this respect, IFAH contributed to a review of the OIE's list of antimicrobial

agents considered to be of critical importance in veterinary medicine. The Federation also used the occasion of World Veterinary Day in April 2012 to renew its call for the responsible use of antibiotics, which should always be administered according to the maxim - "as little as possible, as much as necessary."





"We continue to highlight the societal benefits of healthy animals. Our interactions and - where possible - collaboration with relevant stakeholders will help to ensure the delivery of those benefits, shaping a suitable business environment while also addressing societal concerns."

SABINE SCHUELLER
CHAIR, IFAH VALUE TEAM

Value to society

In fulfilling its mission to enhance the perception of value and contribution of veterinary medicines to society by preserving the health and welfare of humans and animal alike, the Value Team looked into ways of moving from establishing a solid outreach to stronger interaction with its key stakeholders. At a roundtable event, experts from different stakeholder groups exchanged ideas and information about the costs of animal diseases to society, based on a report by independent experts. Commissioned by IFAH, this white paper looked in detail at three specific examples: an animal-only disease – foot-and-mouth disease; a zoonosis – rabies; and a disease in animals and people transmitted through food – salmonellosis [see page 7]. Team members were also active in communicating the lessons to be learned from this document with partner organisations working in the field of animal health. In a related initiative, the Value Team also provided input into the preparation of the Antimicrobials Working Group's white paper on the benefits of antibiotics.

Educating the public about the issues associated with the development and applications of animal health products is the main focus of the Value Team's activities. It members worked hard during 2012 to prepare and distribute its message through a wide range of information channels. One of the most important of these is the IFAH website for which a series of new articles was produced during the course of the year.

One of these highlighted the different classes of animal health products used both in livestock and pet animals. The latter was the particular focus of a second article highlighting the advances that have been made in the control of the various parasitic, bacterial and viral conditions that affect pet animal species. It also emphasised the importance of products used in companion animals in preventing the transmission of zoonotic infections to their owners. Further articles addressed the lengthy process of research and development needed to bring animal medicines to the market and looked at the animal health industry's role in limiting the environmental impact of livestock production to ensure a safe and sustainable food supply.

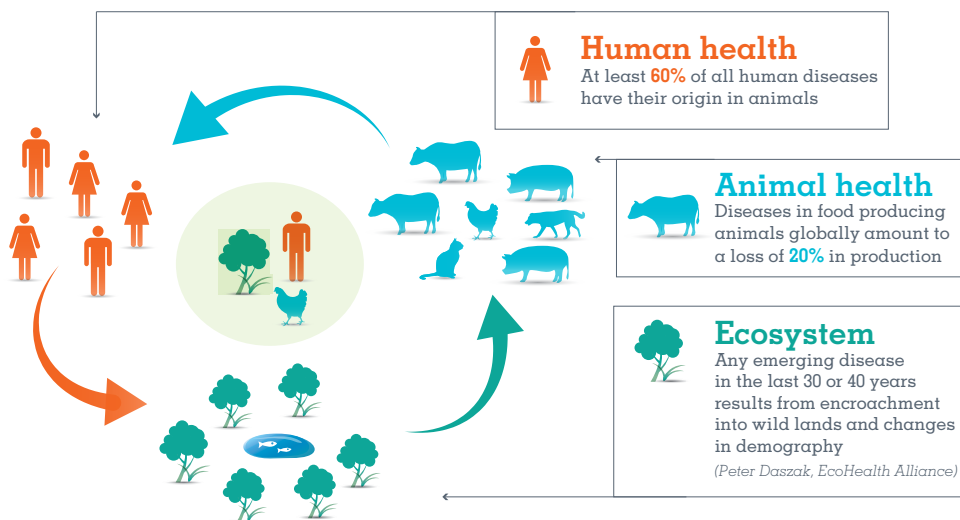
The website was also enriched by an infographic highlighting the interrelationships between human and animal health (the One Health concept) and an external newsletter - IFAH News - was launched in December 2012 and is available on the IFAH website or by signing up to the distribution list. Furthermore, social media features have been introduced to help in communicating with the Federation's membership, stakeholder organisations and the general public. This means that since July 2012 IFAH has been active on twitter - @Health4Animals.

In addition, the team organised a second video on the IFAH website in which the Federation's President Juan Ramón Alaix spoke of the many achievements of IFAH and the organisation's focus for the year ahead. But he also warned of the need for a balanced regulatory environment if the progress achieved in the past is to be maintained. He stressed that the animal health industry's role in providing safe and effective products has never been more vital, given the relentless growth in the world population and the resulting pressure to provide increased amounts of high grade protein.

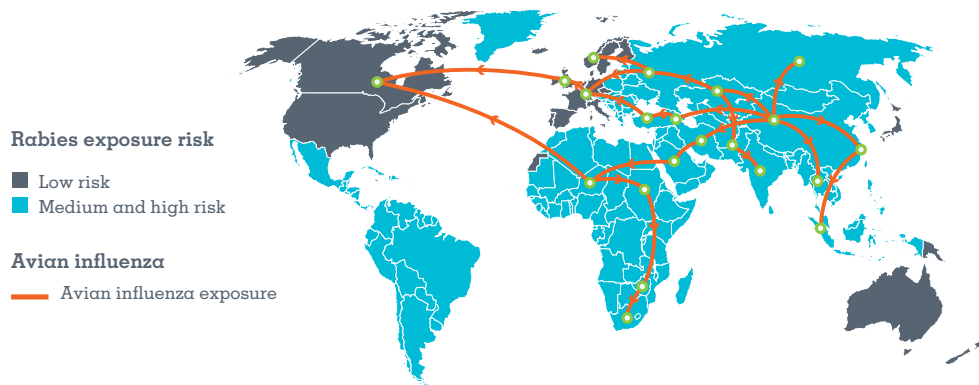


OneHealth

Human health, animal health and ecosystems are **inextricably linked**



Disease knows no boundaries



Stakeholders need to work together







IFAH-Europe conference



European Pet Night

Stakeholder alliances

Providing safe, secure and sustainable food into the future was the focus of IFAH-Europe's June 2012 conference. As the animal health industry, our role in meeting this challenge will be in trying to eliminate or reduce the burden of disease in animals. The OIE estimates that livestock diseases reduce the amount of animal-based protein produced by the global farming industry by 20%. In terms of addressing future food security by combatting this loss of production due to disease, the EU-funded DISCONTTOOLS project (www.discontools.eu) identifies the most important gaps in information on the most significant diseases and aims to focus research funding towards these gaps. Through our collaboration with a network of countries in Europe (www.anihwa.eu) and on a global level (www.star-idaz.net), we are encouraging research funders around the world to focus their efforts in these key areas.

Antibiotics

As an industry, we are deeply involved in the debate surrounding the use of antibiotics. We have a very clear vision: antibiotics must be used appropriately and in order to ensure responsible use, we must have transparency in the way that these important products are administered to animals. For this reason IFAH-Europe is actively involved in the stakeholder-driven initiative EPRUMA, the European Platform for the Responsible Use of Medicines in Animals (www.epruma.eu). With strengthening the promotion of the appropriate use of antibiotics listed in the first part of the European Commission's Action Plan against the Rising Threats from Antimicrobial Resistance (November 2011), IFAH-Europe continues to urge the Commission to consider using EPRUMA as a vehicle for this promotion, especially through its close interactions with veterinarians and farmers.

Regulatory affairs

The Europe report from the 2011 global benchmarking survey on the animal health industry, published in September 2012, highlighted the need for regulatory reform with participants reporting that the complex European legal framework has created a large administrative burden, increased development costs and times, and drastically hinders both market access and innovation. With the upcoming European veterinary medicines legislative reform in mind, IFAH-Europe spent much of 2012 actively promoting the 1-1-1 Concept to national veterinary agencies and authorities. A harmonised approach through a true single EU market with reduced administrative burden via the 1-1-1 Concept (1 dossier, 1 assessment leading to 1 marketing authorisation valid across the EU) is a potential solution to the problems encountered in trying to ensure the competitiveness of the animal health industry in Europe.

Communications

Promoting the benefits of animals to society, our European Pet Night event in February once again provided a forum to address a wider range of stakeholders. Special guest speaker, Claire Guest from the charity Medical Detection Dogs, provided a very impressive demonstration of how animals help people on a daily basis to avoid health problems by alerting the person to an impending medical crisis. In people with conditions such as diabetes, the dogs are able to detect chemical changes in the body, even before the person is aware of the problem.

AHI - USA

CAHI - Canada

INFARVET - Mexico

Regulatory Affairs

AHI negotiated a new five-year Animal Drug User Fee Agreement with the Food and Drug Administration's (FDA) Center for Veterinary Medicines. AHI achieved cost containment in the new agreement by relying on data generated by the IFAH benchmarking survey.

AHI also provided critical input into the restructuring of the USDA Center for Veterinary Biologics and worked with the Center to ensure that its business process improvement initiative focused upon areas of importance to AHI members using the IFAH benchmarking survey.

Working with a broad coalition of pet owners, veterinarians and the pet products industry, AHI continues to educate judges and legislatures to the adverse public policy consequences of allowing emotion-based damages in litigation involving injury to animals. These efforts included briefing and arguing a case currently pending before the Texas Supreme Court.

CAHI was closely involved in the efforts to develop a notification programme for low risk veterinary health products used in cats, dogs and horses not intended for human consumption. This covers products such as homeopathic preparations, botanicals, vitamins and minerals. Suppliers can apply for a notification number with North American Compendiums, with more than 170 such products receiving such status during the year.

In September CAHI participated in consultations with the Canadian Food Inspection Agency and producers on modernising Canada's animal feed regulations to bring them closer in line with those of the US and Europe. CAHI, in collaboration with the Animal Nutrition Council of Canada, developed a regulatory approach which outlines a risk-based approach to regulating this class of products. Towards the end of the year, CAHI also held technical discussions on modernisation of the veterinary medicines regulations. Its representatives prepared for four days of consultations in January and March 2013 led by Health Canada's, Veterinary Drugs Directorate (VDD).

INFARVET's Regulatory Affairs Committee produced proposals for technical guidelines on the Federal regulation of animal feeds, on Good Manufacturing Practice and on biological products which were presented to the regulatory authorities. SENASICA, the Mexican government's Department of Livestock Services and Certification, later confirmed that these guidelines would be incorporated into the rules on the Federal Regulation of Animal Health, published in the official journal of the Federation in May 2012.

Antibiotics

CAHI President Jean Szkotnicki co-chaired a committee formed to follow up on issues identified at a major conference on antimicrobial stewardship in Canada held in October 2011. These efforts produced a petition requesting that key government agencies work more closely together in addressing these important challenges. Ms. Szkotnicki was also co-author of an article in the April 2012 edition of the Canadian Veterinary Journal entitled "Antimicrobial stewardship in Canadian agriculture and veterinary medicine: How is Canada doing and what still needs to be done." AHI worked with FDA to secure the release of a new guidance document providing a pathway for converting growth promotion claims to therapeutic claims. The document is part of the FDA effort to phase-out growth promotion claims and phase in veterinary oversight of medically important antibiotics.

AHI interacted with FDA, including submission of written comments, on the issue of antibiotic data collection. AHI's position is that national level data is of limited scientific use and FDA should provide a scientific justification for further data collection.





Alex Mathews and panelists "From FIDO to Food Safety: Roles, Responsibilities and Realities Veterinarians Face in Protecting Public Health".



CAHI annually recognises external leadership and contributions to the field of animal health. Dr. John Prescott (center) is presented the award by the CAHI Chair Paul Lake and President Jean Szkotnicki.

Avian influenza

After an outbreak of AH7N3 avian influenza was reported in Los Altos de Jalisco (Mexico) in June 2012, INFARVET worked closely with the federal government and its agencies on the preparation of a suitable vaccine for poultry. Within five weeks a vaccine became available and was employed in the control and eradication of the disease. This was achieved due to the effective collaboration between INFARVET members and molecular biologists at SENASICA, the National Service for Health, Food Safety and Quality, who were responsible for sequencing the virus.

Environmental stewardship

CAHI took on a major role in promoting the concept of environmental stewardship and extended producer responsibility. Its members initiated a voluntary collection of unwanted food-animal products from farms in Manitoba over a three-day period in October. Unwanted products were returned at 20 sites around the province and the project resulted in the collection of 75,000 kg of pesticide and 340 kg of animal health products. The exercise is to be repeated in 2013 with support from the provincial government of Ontario.

In October, the Ministry of the Environment in Ontario passed a regulation requiring manufacturers of pharmaceuticals and clinical sharps to set up an industry stewardship organisation. CAHI has established a partnership with that body, the Post Consumer Pharmaceutical Stewardship Association, to organise collections of unwanted companion-animal medicines and sharps alongside unwanted human sharps and medicinal products. The programme is required to be fully industry funded and must operate at 3,000 pharmacies across the province. Industry has assumed responsibility for all aspects of the collection.



Alex Mathews, President and CEO of AHI, and Bernadette Durham, Center for Veterinary Medicine (CVM) Director, pose with Uggie during AHI's annual Pet Night on Capitol Hill.

Communications

AHI partnered with the American Veterinary Medical Association to co-host the thought leadership event "Roles, Responsibilities and Realities Veterinarians Face in Protecting Public Health". Held in June 2012 on Capitol Hill, speakers examined the increasing role that veterinarians play in food safety and maintaining animal health as a key driver in overall public health. The event was well attended by Hill staffers, regulators, stakeholders, and members.

AHI conducted desk-side briefings with consumer magazines, sharing information on the important use of antibiotics to keep food-animals healthy.

AHI's annual Pet Night on Capitol Hill attracted attention from news media and Members of Congress as guests lined up to meet famous pets Uggie, the Jack Russell Terrier who played "Jack" in the award-winning film "The Artist", and Tennessee, the cat who played "Buttercup" in the hit movie "The Hunger Games".

ALAVET - Chile

CAPROVE - Argentina

SINDAN - Brazil

Regulatory affairs

The Committee of the Americas for the Harmonisation of the Registration and Control of Veterinary Medicines - CAMEVET - held their 18th workshop in Sao Paolo, Brazil, on 3-5 October 2012. This event provides a forum for the animal health industry to meet with staff from the national regulatory bodies to discuss matters relating to the modernisation of the regulatory system for the protection of consumers and to improve the competitiveness of the local livestock industry.

CAPROVE signed an agreement with the Foundation for the Promotion of Research and Education for Food Security (PROSAIA) on projects of mutual interest, including the production of guidelines on the preparation and registration of veterinary pharmaceuticals and vaccines. During 2012 CAPROVE also held a number of meetings with Argentina's regulatory agency SENASA on issues such as Good Manufacturing Practice audits.

At a regional level CAPROVE plans to work with the Agriculture Ministry of the province of Buenos Aires and other stakeholders on an initiative on the registration and licensing of all establishments involved in dispensing veterinary medicines within that jurisdiction.

Brazil's Ministry of Agriculture responded to SINDAN's request for changes in the regulations affecting the availability of imported products that are similar to those manufactured by domestic producers. The changes will establish a 10-year licence for all imported products.

The ministry also established new rules on the withdrawal periods to be observed following the administration of antibiotics in livestock and the labelling instructions for the packaging used with such products.





CAMEVET workshop in Brazil

Disease eradication programmes

SINDAN member companies are playing a crucial role in three major national disease eradication programmes in Brazil. During the year, the Brazilian animal health industry produced 370 million doses of vaccine for the foot-and-mouth disease programme, 130 million doses of rabies vaccine for the eradication programme in herbivores, and a further 18.5 million doses for the brucellosis programme. Companies have also been working on local programmes to deal with clostridiosis in cattle and the poultry conditions, Newcastle disease, avian infectious bronchitis and Gumboro. In each case the efficacy of the treatment has been guaranteed through internal and official quality control programmes.

Communications

CAPROVE continued to build on its strong relationship with the Argentinian livestock producers and with the veterinary profession that serves them. The chamber held a series of events with these key stakeholders to promote the concept of herd health plan in tackling losses due to preventable disease. A radio publicity campaign and newsletter highlighted the value of producers working in collaboration with their veterinary advisors.

Meanwhile, Argentina's national government invited CAPROVE to be among those organisations participating in discussions on the implementation of the 2010-2016 strategic plan for the country's agricultural industry. Those contributing to the debate will be involved in producing information for farmers highlighting the role of veterinary medicines in maintaining animal health and improving productivity.



Regional activities

Asia and Africa

AAHA - South East Asia

AHPA - Thailand

ASOHI - Indonesia

JVPA - Japan

KAHPA - Korea

SAAHA - South Africa

Regulatory affairs

Through its partner organisation, the Association of Veterinary and Crop Associations of South Africa, SAAHA was forced to take legal proceedings against the South African Minister of Agriculture, Forestry and Fisheries due to the long delays in the registration of veterinary medicines and related products. The Minister had previously been ordered by the South African courts to appoint a joint ministerial task force to review the issue and make recommendations on the way forward. The Minister had accepted all the recommendations put forward by the Registrar of fertilisers, farm feeds, agricultural remedies and stock remedies but failed to comply with a court order dated 12 February 2011. After several attempts during 2012 to engage the Minister, SAAHA had no option but to bring an application for a contempt of court hearing. This was eventually heard on 9 January 2013 when the association's application was unopposed. The court ordered the Minister to comply with its earlier findings and to pay punitive costs to the industry's representatives.

JVPA held its customary annual meeting with the Japanese Ministry of Agriculture, Forestry and Fisheries to review the process for the registration of veterinary products. This was followed up by further meetings between government agencies and industry representatives, which are confidently expected to produce outcomes leading to more efficient registration processes.

One of the main concerns of the Japanese animal health industry is the long shipping restrictions on biological products in Japan - up to six months for some products, compared with 21 days in the US and none in Europe. The JVPA has submitted a proposal for eliminating this disparity. Meanwhile, the process of national testing for biological products has been simplified by ending the requirement for sealing each commercial package with certification stickers.

AAHA submitted letters to the national authorities in three states - Malaysia, South Korea and Vietnam - highlighting specific regulatory issues facing member companies in those countries. This approach has led to an encouraging response from the national authorities in Malaysia and South Korea.

Following representations from ASOHI to the Indonesian government agency, new procedures have been introduced which will lead to a simpler process for the registration of products based on genetically modified organisms and recombinant technology.





OIE event in Thailand



Indonesia: egg and chicken meat festival

Communications and stakeholder alliances

AHPA held a joint meeting with ASOHI at the Indonesia Livestock Exhibition in June 2012. The two organisations agreed on a programme of collaboration in which they would share information and experiences of the export and registration process, the livestock industry, animal health products and on the transfer of technical knowledge. AHPA was also an active participant in the OIE's second regional seminar 'Focal points on veterinary products' held in Bangkok, Thailand from 10 to 13 July 2012.

Meanwhile, the AAHA has been actively engaged in expanding interactions with other organisations in the Asia Pacific region, including the FAO, the Asia-Pacific Economic Cooperation forum (APEC), the Association of South East Asian Nations (ASEAN) and various national associations to increase information flow between the various stakeholder organisations and to better represent the animal health industry in the Asia Pacific region.



Regulatory Affairs

The Alliance allocated significant resources to influence the drafting of the Federal Regulators (APVMA) "Better Regulations Bill". The revised Bill has been tabled in Federal Parliament where it has been submitted to a House of Representatives inquiry and also a separate Senate inquiry. The Alliance's actions in 2012 have resulted in an invitation from both inquiries to present our position on concerns with the draft Bill.

Agcarm welcomed the long awaited New Zealand government announcement on improvements to the protection of data. The proposals will provide extensions of data protection for existing products to new species, will introduce a three-year period of data protection where previously there was none, as well as extending data protection for new actives with multiple uses to eight years. However, while these changes are to be applauded, Agcarm feels they do not go far enough and will continue to press its case for additional protection.

In November, Agcarm achieved success in changing the anomalous position of veterinary medicines under New Zealand law through which they are regulated by two government ministries, the Environmental Protection Authority (EPA) and the Ministry for Primary Industries. One consequence of that position was that veterinary medicines were required to carry unnecessary label warnings in New Zealand that were not needed elsewhere and added significantly to local marketing costs. As a solution, Agcarm developed a 'group standard' for finished-dose veterinary medicines in small pack sizes in 2012. A group standard is an EPA approval method for a wide range of similar products with certain properties. The group standard will make it easier and cheaper for manufacturers to comply with HSNO by reducing unnecessary label statements.





Antibiotics

The Alliance drafted and commenced finalising an industry position paper highlighting the value of animal health products including antibiotics to livestock production and animal welfare. Similarly, the Alliance has commissioned a new report focussing on the value of pets in society and how animal health products – including antibiotics in conjunction with veterinary advice – go hand in hand with responsible pet care.

Communications

The Alliance was proactive in its communications role during 2012, producing press releases and information sheets on 12 subjects ranging from the protection of pets from summer parasites to the efforts needed to control the potentially lethal Hendra virus.

The Alliance also developed and implemented a strategy to utilise the IFAH global benchmarking survey findings to help influence change to Australian regulatory policy for veterinary chemicals. This strategy was rolled out in several stages to enable a focus on three important sectors: livestock, companion animals and the scientific community.

Tailored materials were developed for each stage, including a media release, case studies and a briefing document. These materials have been used with media, as website content, in stakeholder e-newsletters, and in stakeholder meetings.

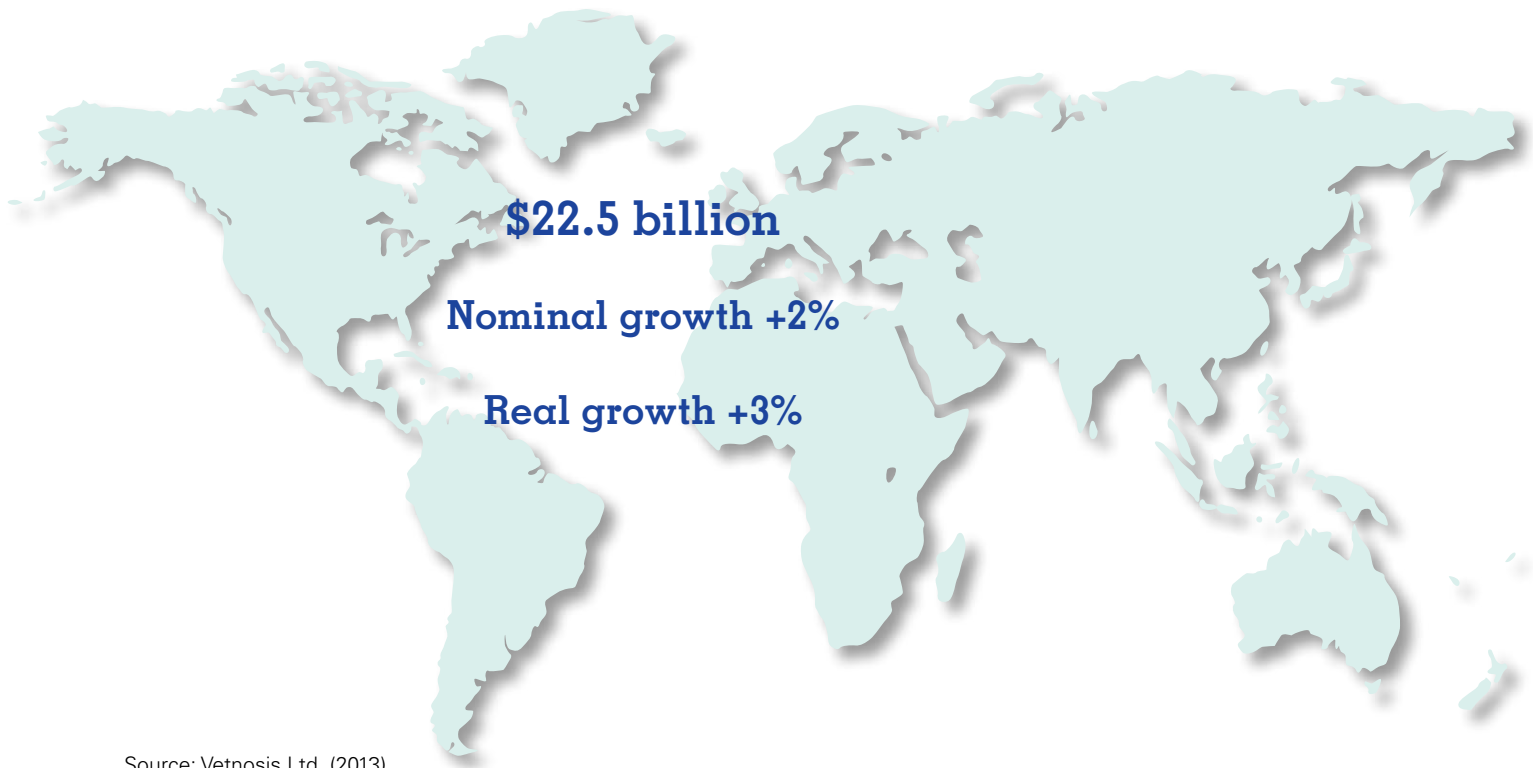
The three media releases were:

- Handicapping Australian farmers (livestock), distributed 8 August 2012
- Pet health worry on the horizon (companion animals), distributed 26 September 2012
- Red tape threatening animal health (scientific community), distributed 10 December 2012

These garnered significant coverage within target media, resulting in 43 media hits (excluding syndicated coverage) and media interviews with the Alliance CEO.

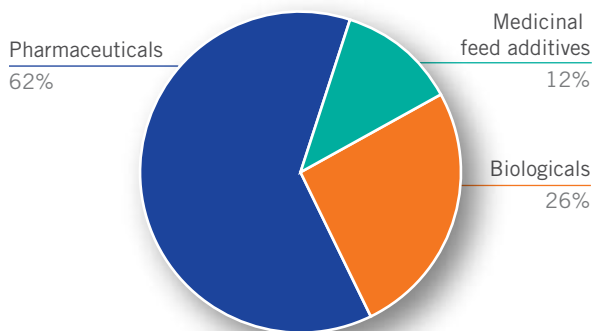
Animal health market report

2012 Animal health industry



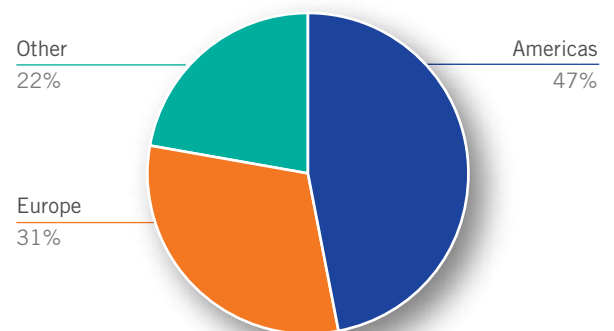
Source: Vetnosis Ltd. (2013)

Animal health market by product group



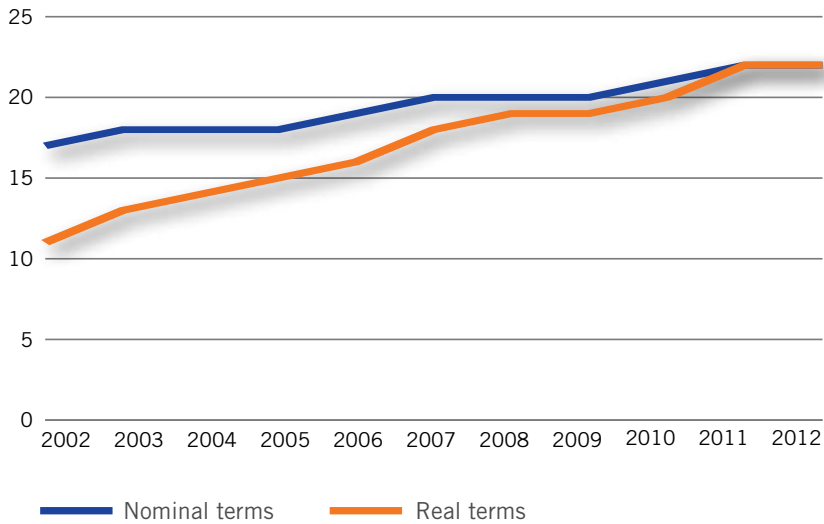
Source: Vetnosis Ltd. (2013)

Animal health market by region



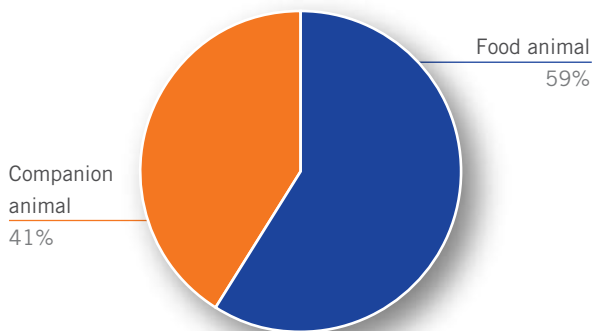
Source: Vetnosis Ltd. (2013)

Global animal health market evolution



Source: Vetnosis Ltd. (2013)

Animal health market by species



Source: Vetnosis Ltd. (2013)

Who's who at IFAH

IFAH is led by a 16-strong Board of Directors comprising representatives from member companies and industry associations throughout the world.

Headed by IFAH President Juan Ramón Alaix, the Board is the federation's decision-making body. It receives support from a Brussels-based secretariat, national and regional member organisations, and from global teams, task forces and working groups focused on issues identified by IFAH as strategic priorities for the animal health industry.

BOARD OF DIRECTORS

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Zoetis

Matthieu Frechin
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George Gunn
Novartis Animal Health

Declan O'Brien
IFAH-Europe

Moshe Coifman
AAHA

George Heidgerken
Boehringer Ingelheim Animal Health

Manoel Ricardo Pinto dos Santos
SINDAN

Richard DeLuca
Merck Animal Health
(MSD Animal Health outside the US and Canada)

Peter Holdsworth
The Animal Health Alliance
(Australia) Ltd

Jeffrey Simmons
Elanco Animal Health

Dirk Ehle
Bayer HealthCare Animal Health Division

Bruno Kaesler
Lohmann Animal Health





SECRETARIAT

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Executive Director

IFAH staff supporting IFAH
and IFAH-Europe

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Clare Carlisle
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Senior Secretary

Administration and IT

Linda Moortgat
Administration Manager
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CORPORATE MEMBERS

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Animal Health Division

Boehringer Ingelheim
Animal Health

Elanco Animal Health

Lohmann Animal Health

Merck Animal Health
(MSD Animal Health outside
the US & Canada)

Merial Ltd

Novartis Animal Health

Vétoquinol

Virbac SA

Zoetis

MEMBER ASSOCIATIONS*

ARGENTINA

CAPROVE – Cámara Argentina de la Industria de Productos Veterinarios

AUSTRALIA

The Animal Health Alliance (Australia) Ltd

BELGIUM

Pharma.be – Association Générale de l'Industrie du Médicament / Algemene Vereniging van de Geneesmiddelenindustrie

BRAZIL

SINDAN – Sindicato Nacional da Indústria de Produtos para Saúde Animal

CANADA

CAHI – Canadian Animal Health Institute

CHILE

ALAVET – Asociación de Laboratorios Veterinarios de Chile

DENMARK

VIF – Veterinærmedicinisk Industriforening

EUROPE

IFAH-EUROPE – International Federation for Animal Health-Europe

FRANCE

SIMV – Syndicat de l'Industrie du Médicament Vétérinaire et Réactif

GERMANY

BfT – Bundesverband für Tiergesundheit

INDONESIA

ASOHI – Asosiasi Obat Hewan Indonesia

IRELAND

APHA – Animal and Plant Health Association

ITALY

AISA – Associazione Nazionale Imprese Salute Animale

JAPAN

JVPA – Japan Veterinary Products Association

KOREA

KAHPA – Korea Animal Health Products Association

MEXICO

INFARVET-CANIFARMA – Industria Farmacéutica Veterinaria

NETHERLANDS

FIDIN – Vereniging van Fabrikanten en Importeurs van Diergeneesmiddelen in Nederland

NEW ZEALAND

AGCARM – New Zealand Association for Animal Health and Crop Protection

PORTUGAL

APIFARMA – Associação Portuguesa da Indústria Farmacéutica

SOUTH AFRICA

SAAHA – South African Animal Health Association

SOUTH EAST ASIA

AAHA – Asian Animal Health Association

SPAIN

VETERINDUSTRIA – Asociación Empresarial Española de la Industria de Sanidad y Nutrición Animal

SWEDEN

LIF – Läkemedelsindustriföreningens Service

SWITZERLAND

SCIENCEINDUSTRIES - Business Association Chemistry Pharma Biotech

THAILAND

AHPA – Thai Animal Health Products Association

UNITED KINGDOM

NOAH – National Office of Animal Health

UNITED STATES

AHI – Animal Health Institute

* Contact details are available on the IFAH website (www.ifahsec.org)

Acronyms

APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of South East Asian Nations
AU-IBAR	African Union's Inter African Bureau for Animal Resources
APVMA	Australian Pesticides and Veterinary Medicines Authority
BN	Billion
CAMEVET	Committee of the Americas for the Harmonisation and Control of Veterinary Medicines
CEO	Chief Executive Officer
DFID	Department for International Development (UK)
DIA	Drug Information Association
DISCONTTOOLS	DISease CONtrol TOOLS
DP/DE	Data Protection and Data Exclusivity
EPA	Environmental Protection Authority (New Zealand)
EPRUMA	European Platform for the Responsible Use of Medicines in Animals
EU	European Union
FAO	Food and Agriculture Organisation of the United Nations
FDA	Food and Drug Administration (USA)
FMD	Foot-and-Mouth Disease
GALVmed	Global Alliance for Livestock Veterinary Medicines
HSNO	Hazardous Substances and New Organisms Act (New Zealand)
JECFA	FAO/WHO Expert Committee on Food Additives
MRL	Maximum Residue Limit
NGO	Non-Governmental Organisation
OIE	World Organisation for Animal Health
PATTEC	Pan African Tsetse and Trypanosomiasis Eradication Campaign
PROSAIA	Foundation for the Promotion of Research and Education for Food Security (Argentina)
SENASA	National Service for Health and Food Quality (Argentina)
SENASICA	National Service for Health, Food Safety and Quality (Mexico)
SSAFE	Safe Supply of Affordable Food Everywhere
UK	United Kingdom
USA	United States of America
USDA	United States Department of Agriculture
VDD	Veterinary Drugs Directorate (Canada)
VICH	International Co-operation on Harmonisation of Technical Requirements for Registration of Veterinary Products
WHO	World Health Organisation
WVA	World Veterinary Association



IFAH

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