CHAPTER 1: OVERVIEW – THE TOP 50 ANIMAL HEALTH COMPANIES OF FISCAL 2014

Elanco’s acquisition-fuelled charge towards the top of the industry rankings has been the major story behind the industry rankings over the past few years. Not only does the US firm have the top three animal health companies looking over their shoulders but it has also rid the standings of two significant top 20 players in fiscal 2014.

As always, mergers and acquisitions played a big part in the to-ing and fro-ing of animal health’s leading lights. The overall trend in 2014 was towards healthy growth for the top firms, many of which exceeded the industry average without the need for acquisitions.

At the moment, the consensus for average sales growth for animal health firms tends to be about 4-5% per year. Therefore, 13 of the top 20 equaled or exceeded this average. Significantly, eight of the top 10 equaled or bettered this 4-5% growth rate.

Inevitably, Elanco and Ceva Santé Animale have both prospered after recent high-profile deals. However, a spotlight should also be shone on the firms that have done well organically without any major recent acquisitions in 2014, such as Boehringer Ingelheim Animal Health and Phibro Animal Health.

Although Zoetis and Merial made acquisitions towards the end of the calendar year, these deals will have more of an impact on 2015’s financial results – 2014 growth for these two companies was largely organic.

Both food-producing animals and companion animals drove growth in equal measures, while emerging markets still represent the geographies where the largest increases were made (notably Asia). Japanese firms are still struggling with a weak Yen.

Generics remain the greatest threat to the top lines of the leading players and, in turn, will be a boost for Perrigo. Notably, firms specializing in vaccines excelled.

Since fiscal 2013, the rankings have lost Novartis Animal Health (formerly eighth position) and Lohmann Animal Health (previously 14th) following their purchase by Elanco. The acquisition of these two firms sees Phibro Animal Health move upwards as the only company in the top 10 not to record sale in excess of $1bn during the last fiscal year. In fact, Ceva is the newest recruit to the $1 billion-club.

This year’s standings welcome China Animal Husbandry Industry Company to the fray for the first time – the company is the largest Chinese veterinary medicine developer. Spanish company Hipra also makes its debut in the table.

Vétoquinol has leapfrogged Kyoritsu Seiyaku into 11th position. The French firm had a solid year, while the Japanese company suffered from a weak Yen. US over-the-counter drug develop Perrigo also ascends into the top 20 after an extremely strong financial showing.
GLOBAL ANIMAL HEALTH MARKET
The world market for animal health products in 2014 reached $23.9 billion, according to figures released by Vetnosis and published by the International Federation for Animal Health. This statistic excludes revenues from diagnostics, devices and pure feed business.

Using the Vetnosis estimate for market size in 2014, the entire veterinary products industry is currently equivalent to 2.4% of human health industry sales (around $980 billion). However, taking the total revenues of the Animal Pharm top 50, this equivalent jumps to around 3%.

The Vetnosis market figure for 2014 represents year-on-year growth of 4%. This growth is low-to-medium when compared with previous annual increases in an industry accustomed to steady growth.

In 2009, with the industry feeling the strain of the global economic recession, the market value dropped 3%. In 2010, the sector began to recover with 8% growth and then 2011 experienced 9.5% growth.

However, in 2012, the market saw only 2% growth – 2014’s figures marks a positive upward turn for the animal health industry.

The Vetnosis figure of 4% growth is backed up by several other sources, which claim the average growth rate for the animal health industry will be around 4-5% in 2015 and beyond. A report from BCC Research revealed sales in the animal health industry are expected to reach $46.5 billion by 2019. The figure represents a compound annual growth rate (CAGR) over five years from 2014 of 4.2%.

The report said pharmaceuticals account for the majority of revenues in the industry at around 42%. BCC Research claims animal pharmaceuticals sales totaled $15.9 billion for 2014 and are expected to increase to nearly $19 billion by 2019. Products in the sector include allergy treatments, anti-infectives, anti-inflammatories, metabolic drugs and antiparasitics amongst others.

Additionally, the report highlighted that companion animal allergy, respiratory, arthritis and pain treatments were the fastest growing sectors in the animal therapeutics market.

The research from BCC supports forecasts from leading animal health executives regarding the growth of the animal health industry in 2015. More than 40 senior executives from various animal health firms participating in a Brakke Consulting Survey recently predicted steady 4-5% industry growth in 2015. Additionally, Vetnosis anticipated a CAGR of 5.7% for animal medicines and vaccines between 2011 and 2016. Using this CAGR, the industry should be worth $26.7 billion.

Recent results for 2014 animal health sales have reflected the projected growth rates from Vetnosis, BCC and Brakke. The leading three firms in particular experienced growth rates in line with the predicted 4.2% and 4-5% for the industry.

Zoetis, Merck/MSD Animal Health and Merial recorded year-on-year sales increases of 5%, 3% and 5%
CHAPTER 2: HISTORICAL ANIMAL PHARM INDUSTRY RANKINGS

Animal Pharm industry rankings 2008

The 2008 industry rankings paint a very different picture to today’s standings. The 2008 version does not include private companies and uses a cut-off of $340 million – although half-year sales for Alpharma were included for illustrative purposes.

As illustrated by the table below, the animal health industry has seen many changes at the top since 2008. Many brands have changed and certain players listed in 2008 merged into other businesses.

This particular year saw the last 12 months of sales for Fort Dodge. In January 2009, Pfizer made a bid for Fort Dodge's parent company Wyeth group and calculated the cost of regulatory compliance in animal health could be around 10% of the value of the combined business. Also in 2008, animal health feed additive specialist Alpharma was taken over by King Pharmaceuticals officially on December 30, after a long-running battle and bid rejections.

Table 2: Animal Pharm industry rankings in 2008.

<table>
<thead>
<tr>
<th>Company</th>
<th>Local currency sales (million)</th>
<th>Change (%)</th>
<th>2008 sales ($ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Schering-Plough</td>
<td>$1,251</td>
<td>+137.6</td>
<td>2,973</td>
</tr>
<tr>
<td>2) Pfizer Animal Health</td>
<td>$2,639</td>
<td>+7.2</td>
<td>2,830</td>
</tr>
<tr>
<td>3) Merial</td>
<td>$2,449</td>
<td>+7.9</td>
<td>2,643</td>
</tr>
<tr>
<td>4) Bayer Animal Health</td>
<td>€956</td>
<td>+0.7</td>
<td>1,416</td>
</tr>
<tr>
<td>5) Novartis Animal Health</td>
<td>$1,060*</td>
<td>+4.8**</td>
<td>1,100</td>
</tr>
<tr>
<td>6) Elanco</td>
<td>$996</td>
<td>+9.7</td>
<td>1,093</td>
</tr>
<tr>
<td>7) Fort Dodge</td>
<td>$1,042</td>
<td>+4.4</td>
<td>1,088</td>
</tr>
<tr>
<td>8) Boehringer Ingelheim</td>
<td>€408</td>
<td>+14.4</td>
<td>687</td>
</tr>
<tr>
<td>Vetmedica</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Virbac</td>
<td>€439</td>
<td>+1.1</td>
<td>651</td>
</tr>
<tr>
<td>10) Ceva Santé Animale</td>
<td>€339</td>
<td>+7.1</td>
<td>534</td>
</tr>
<tr>
<td>11) Phibro Animal Health</td>
<td>n/a</td>
<td>$418***</td>
<td>418***</td>
</tr>
<tr>
<td>12) Vétoquinol</td>
<td>€233</td>
<td>+0.4</td>
<td>344</td>
</tr>
<tr>
<td>13) Alpharma</td>
<td>$367</td>
<td>n/a</td>
<td>177****</td>
</tr>
</tbody>
</table>

Notes: table excludes diagnostics companies; *estimate; **disclosed percentage increase and rounded 2008 figure; ***year to June 30 2008; ****first-half sales only. Average 2008 exchange rate used: €1=US$1.47134.
BIOGÉNESIS BAGÓ

Address
Ruta Panamericana, Garín, Buenos Aires, Argentina

Telephone
(+54) 3327 448.300

Website
www.biogenesisbago.com

Key executive
Guillermo Mattioli - general director

Animal health sales 2014
$147 million

Ranking
22nd

Main product areas
Food animal vaccines

Main business areas
South America

OVERVIEW

Biogénesis Bagó is the leading animal health company in Argentina and the second largest domestic veterinary medicines firm in Latin America.

The company specializes in developing, manufacturing and marketing veterinary products and services for food-producing animals (with a specific focus on vaccines). The firm has been in existence for more than 70 years – it has established offices in Bolivia, Brazil, Central America, Mexico and Uruguay.

Biogénesis Bagó is the main supplier for regional vaccination plans to control and eradicate foot-and-mouth disease in Latin America.

The firm was founded in 1934 as Chemotécnica and four years later registered its first veterinary product – an arsenic-based ectoparasiticide. In 1952, the company registered its first foot-and-mouth vaccine in Argentina. At this stage the firm was named Chemotécnica Sinytal.

In 1994, Biogénesis merged with Chemotécnica Sinytal to form Biogénesis Sinytal. The company has since renamed Biogénesis Bagó. Since the 1990s, the firm has been globalizing its FMD vaccine business and opening sales branches across Latin America.

Biogénesis Bagó owns a biologicals production plant capable of producing 100 million doses per year and an FMD manufacturing unit with scale of 200 million doses per year. The firm also owns a rabies vaccine production unit, which has an annual manufacturing capacity of 20 million doses.

In November 2014, Biogénesis Bagó began work on a foot-and-mouth disease vaccine plant in China. The company is building the facility in Yangling, within the province of Shaanxi, as part of a joint venture with HILE Biotechnology, a Chinese private-sector company that produces vaccines for swine and poultry. The joint venture is called Yangling JINHAI Biotechnology.

Esteban Turic, the firm’s innovation director, told Animal Pharm: “The plant will start to operate in 2016 with..."
ELANCO

Address: PO Box 708, Greenfield, IN 46140, US
Telephone: +1 317 277 3185
Website: www.elanco.com

Key executive: Jeff Simmons – president
Animal health sales 2014: $2,347 million
Ranking: 4th
Main product areas: Antibiotics, antiparasitics, productivity enhancers
Main business areas: North America and Europe

OVERVIEW

Elanco is the animal health division of top 10 US pharmaceutical firm Eli Lilly. The firm is one of Lilly’s five business units – other than animal health, Lilly focuses on neuroscience, endocrinology, oncology and cardiovascular products.

Elanco is the largest animal health division amongst the ‘Big Pharma’ businesses – the firm grew from 6.9% of the Lilly business in 2011 to around 12% in 2014.

The company has been supplying products for use on cattle, pigs and poultry since 1954, and the Lilly group has been involved in companion animals since 2007. Elanco is present in 75 countries, with offices in more than 40 countries and employs more than 7,000 people worldwide.

The firm’s recent business development has been fast. Elanco gave a number of signals in 2009 that it was raising its profile in companion animals, a business the Lilly group had started up in 2007. It partnered with VetCentric, the largest US wholesaler and distributor of prescription medications and veterinary therapeutic diets, in order to expand its reach to veterinarians and pet owners.

It also rebranded the Lilly Companion Animal Health business under the Elanco trade name. The brand was already in place for livestock veterinary products. With the transition to Elanco Companion Animal Health, all Elanco’s animal health businesses, including Ivy Animal Health, which it bought in 2008, came under one brand name.

With a tailwind pushing sales growth and having changed its structure, Elanco then moved to new global headquarters on a 20-acre site in Hancock County, Indiana. Centralizing operations would yield operating cost savings but, more importantly, it was described by president Jeff Simmons as a vital step in Elanco’s goal of becoming “a top global animal health company”.

A strategic move saw Elanco succeed in its bid to acquire a portfolio of products being sold off by Pfizer/Fort Dodge in their need to satisfy merger conditions. The range acquired by Elanco in May 2010, for a cash consideration of $148.4 million, included vaccines, parasiticides and feed additives, plus the former Fort...
JINYU GROUP

Address 58 Erdos Street, Yuquan District, Hohhot, Inner Mongolia, China
Telephone (+86) 0471-6539430
Website www.jinyubaoling.com.cn

Key executive Zhongchong Yu – chief executive
Animal health sales 2014 CNY 1.02 billion ($166 million)
Ranking 21st
Main product areas Vaccines
Main business areas China

OVERVIEW
Jinyu Group is China’s second largest animal pharmaceutical firm by veterinary sales and a holding company for Jinyu Baoaling, which generates about 95% of the company’s revenues. Baoaling manufactures and sells mostly compulsory foot-and-mouth vaccinations for livestock via government tenders. In 2014, it was China’s fastest growing animal pharmaceutical company. The firm has about 500 employees.

Jinyu Baoaling’s headquarters are in Hohhot, capital of Inner Mongolia. Prior to its incorporation in 1998, Baoaling was formerly Inner Mongolia’s Office of Livestock Management.

That same year, its parent company Jinyu Group listed on the Shanghai stock exchange. In 2014, Ping An, a massive insurance firm, invested CNY700 million in the firm for a 12.04% stake.

In spring 2015, however, Jinyu Group revoked the deal. Jinyu Group’s largest shareholder is an employee-owned trust. Its general manager, Wang Feifeng, was briefly United Biomedical’s China chief executive in Shanghai.

ANIMAL HEALTH PRODUCTS
The firm makes more than 60 products, of which 16 are foot-and-mouth vaccines for cattle and ruminants and 13 are foot-and-mouth vaccines for swine. Jinyu also makes vaccines for poultry. Its type O Asia I bivalent inactivated FMD vaccination for cattle and ruminants is the firm’s key product.

Jinyu Baoaling’s annual production capacity of foot-and-mouth vaccines stands at 2.4 billion ml – the largest production capacity of the vaccine in China – and 10 billion individual live freeze-dried vaccinations.

HISTORICAL ANIMAL HEALTH SALES
In fiscal 2012, Jinyu Group’s veterinary sales revenues decreased by 3.41% year-on-year to CNY434 million. In 2013, its veterinary revenues increased by 45.29% to CNY630 million.

In its most recent annual sales report, the company recorded sales of CNY1.02 billion in 2014 – a significant increase of 62.41%. This revenue growth was all organic growth from important government tenders.
The momentum built in 2014 was carried over into 2015.

In the first half of the year, Merial’s sales jumped 14% to €1.35 billion. First-half sales of companion animal products grew by approximately 15% to €907 million, while the food animal business grew 12% to €442 million.

Sales of vaccines went up 8% to €391 million and avermectin products climbed 17% to €288 million. Merial’s fipronil business battled generic competition and only scored a 1.5% increase in revenues to €387 million.

R&D

In June 2014, former Novartis executive Fabian Kausche was chosen as Merial’s global head of research and development. He will oversee a division, which is dedicated to the development of antiparasitics and biologicals.

He also heads a division which features nine global research sites and approximately 750 employees.

The firm said: “Merial’s scientists are exploring advanced technologies and tools to help discover new compounds. For example, molecular target-based screening, which assesses drug candidates from a different angle than traditionally taken, could open up opportunities to identify anti-parasitics faster and at lower cost than previous methods alone.”

The company’s R&D team is also aiming to streamline and fine-tune the vaccine development process through advanced diagnostics, faster DNA sequencing and better data analysis.

Merial also focuses on new formulation technologies for drugs, such as pour-on or injectable formulations for cats, which are difficult to treat via oral administration. For dogs, highly-palatable soft chews ease the administration of drugs. For cattle, the firm is working on long-acting formulations are available, while equine work is focused on oral paste.

Table 21: Merial animal health sales 2007-2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales (million)</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>$2,449</td>
<td>+11.6</td>
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<td>2008</td>
<td>$2,643</td>
<td>+7.9</td>
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<td>2009</td>
<td>$2,554</td>
<td>-3.4</td>
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<td>2010</td>
<td>€1,983*</td>
<td>+3.2</td>
</tr>
<tr>
<td>2011</td>
<td>€2,030</td>
<td>+2.4</td>
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<tr>
<td>2012</td>
<td>€2,179</td>
<td>+7.3</td>
</tr>
<tr>
<td>2013</td>
<td>€1,985</td>
<td>-8.9</td>
</tr>
<tr>
<td>2014</td>
<td>€2,076</td>
<td>+4.6</td>
</tr>
</tbody>
</table>

*Begins reporting in Euros. Source: Merial
ZOETIS

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+1 973 822 7000
Website
www.zoetis.com

Key executive
Juan Ramón Alaix – chief executive
Animal health sales 2014
$4,785 million
Ranking
1st
Main product areas
Parasiticides, anti-infectives and biologicals
Main business geographies
North America, Latin America, Europe, Middle East and Africa, Asia-Pacific

OVERVIEW
Zoetis, pronounced zo-EH-tis, is the world's largest animal health firm. It was created in 2013 following its spin-out from global pharmaceutical business Pfizer. Firstly, this profile will look at the history of Pfizer Animal Health before detailing the creation of Zoetis.

Zoetis specializes in products that prevent and treat cardiovascular and metabolic diseases, central nervous system disorders, arthritis and pain, infectious and respiratory diseases, urogenital conditions, cancer, eye disease and endocrine disorders, among others.

As of 2014 (and prior to a major streamlining process), the company had 9,300 employees and markets its 300 product lines in 120 countries. It has a ground presence in around 70 countries and 27 production sites.

Around 65% of its revenues are from sales of products for food animals, while the remainder comes from companion animal products.

Zoetis make around 43% of its sales in the US, 24% in Europe, Africa and the Middle East, 17% in Canada and Latin America and 16% in Asia-Pacific.

Pfizer's first activities in the animal health market came in 1950 when its researchers discovered Terramycin (oxytetracycline), which is an antibiotic shown to be effective against more than 100 different infectious organisms, particularly in livestock.

In 1952, Pfizer established a dedicated agricultural division – this was renamed Pfizer Animal Health in 1988. In 1995, Pfizer acquired SmithKline Beecham’s animal health division (previously Norden Laboratories), allowing it to enter the vaccine and small-animal businesses.

Throughout the 1990s and 2000s, Pfizer went on a strong acquisition campaign – at the same time product launches came thick and fast.
we don’t regard the competition as too severe and feel we will make inroads quite quickly. If we are successful, I am sure we will consider opening a branch office in the UAE.”

37. ZHEJIANG SHENGHUA BIOK BIOLOGY
Zhejiang Shenghua Biok Biology primarily manufactures bio-agrochemicals, as well as animal pharmaceuticals. Its animal pharmaceutical products consist primarily of APIs and premixes.

The company was founded in 1993 and listed on the Shanghai stock exchange in 1999. It is based in Deqing, China.

In 2012, the company’s veterinary sales increased by 13.5% to CNY510 million. The following year, revenues decreased by 10.7% to CNY450 million. In 2014, sales increased by 15.2% to CNY504 million.

38. MEIJI SEIKA PHARMA ANIMAL HEALTH
The Meiji Group is a Japanese company with pharmaceutical, nutrition and confectionery assets. The firm can trace its roots back to 1906 when Meiji Sugar and Meiji Dairies were established. Meiji became involved in pharmaceuticals in 1946 when it began producing penicillin, which was seen as a natural extension of its experiences in using fermentation in food production.

In 2011, Meiji spun out its food and pharmaceuticals assets. Its food operations became part of Meiji Co and the pharmaceuticals business (including animal health) were housed by Meiji Seika Pharma.

Meiji Seika Pharma is divided into two units: the ethical pharmaceuticals business and the agricultural chemicals and veterinary drugs operations. Meiji Seika’s animal health business is the fourth largest in Japan and the fifth biggest in Asia.

The animal health side of the group began after a successful record of producing human antibiotics and other drugs led to the launch of the veterinary penicillin-based feed additive Meirich P in 1955.

The firm built its animal health empire with new proprietary products until 2002, when it bought Eisai’s veterinary and livestock feed business. It also grew in 2004 with the acquisition of the animal drug business of Daiichi Pharmaceutical.

The animal drug business became part of the ¥21 billion agricultural and veterinary division of Meiji Seika Pharma, which was spun out of the Meiji group on April 1, 2011.

The company has local animal drug production in Thailand and Indonesia, and works in Europe via group company Tedec Meiji Farma (Madrid).

The Japanese company’s animal health strengths have been built on an anti-infectives/antibiotics legacy, notably kanamycin, but this has broadened to antiparasitics in recent years, including ivermectin, pyrantel, fenbendazole, and praziquantel and emodepside (the two active ingredients in the relatively recent product,
NORTH AMERICA

The US may be home to the industry’s biggest companies but it also has a plethora of smaller animal health firms too.

Companion animal biotechnology start-ups such as Aratana Therapeutics and Kindred Biosciences are on the cusp of significant revenues. Other noteworthy early-stage firms are Piedmont Pharmaceuticals (which has lofty ambitions to break into the top 20 by 2020), VetDC, Jaguar Animal Health, Parnell, Harrisvaccines, Braasch Biotech, ImmuCell and SmartVet.

Akorn Animal Health and Putney are US animal health generics specialists. Canadian start-ups include Prevtec Microbia and Kane Biotech.

Mexican animal health companies include Adler Pharma, Avimex, Investigación Aplicada, Laboratorios Pier and Laboratorios BIO-ZOO.

LATIN AMERICA

Biovet is a Brazilian company also present in Uruguay, Peru, Paraguay, Bolivia, Cuba, Colombia, Ecuador, Venezuela and Costa Rica. It is also expanding into Asia and the Middle East. The company is focused on products for cattle and poultry. For cattle, Biovet sells endoparasiticides and ectoparasiticides, rabies vaccines and clostridiosis vaccines. In the poultry segment, its most significant products are coccidiosis vaccines, Salmonella enteritidis vaccines and vaccines for Newcastle disease, Gumboro, infectious bronchitis, viral arthritis and avian pneumovirus.

Fabiani Saúde Animal is a Brazilian firm formed in 2013 in order to market the veterinary medicine portfolio of Tortuga Companhia Zootécnica Agrária. Tortuga was a Brazilian animal health and nutrition company established in 1954. In April 2013, the business was acquired Royal DSM, the Dutch multinational life and materials sciences company, in a deal worth €440 million. Fabiani has a portfolio of 26 products dedicated to animal health, including the Proverme, Vitagold, Ferrodex and Tormicina brands, as well as a wide range of therapies from vitamin and mineral supplements to antibiotics and anthelmintics. Fabiani has previously said it expects to report revenues of R$60 million (approximately $17 million) in 2013.

Brazilian company FormilVet was established in 1995. It is focused on developing products for pigs and poultry. The firm’s portfolio houses a range of anti-infectives and endoparasiticides. The firm has strength in Latin America – it has branches in Argentina, Colombia, Venezuela, Peru, Ecuador, Bolivia and Mexico.

Eurofarma is a Brazilian company with annual animal health sales of R$57.7 million (around $18.5 million). The São Paulo-based business said its mastitis treatment Newmast and hormone stimulator Aminofort performed well. Eurofarma’s veterinary unit is focused entirely on products for cattle and swine.

Vencofarma is a Brazilian animal health vaccine specialist. The Londrina-based firm has been operating