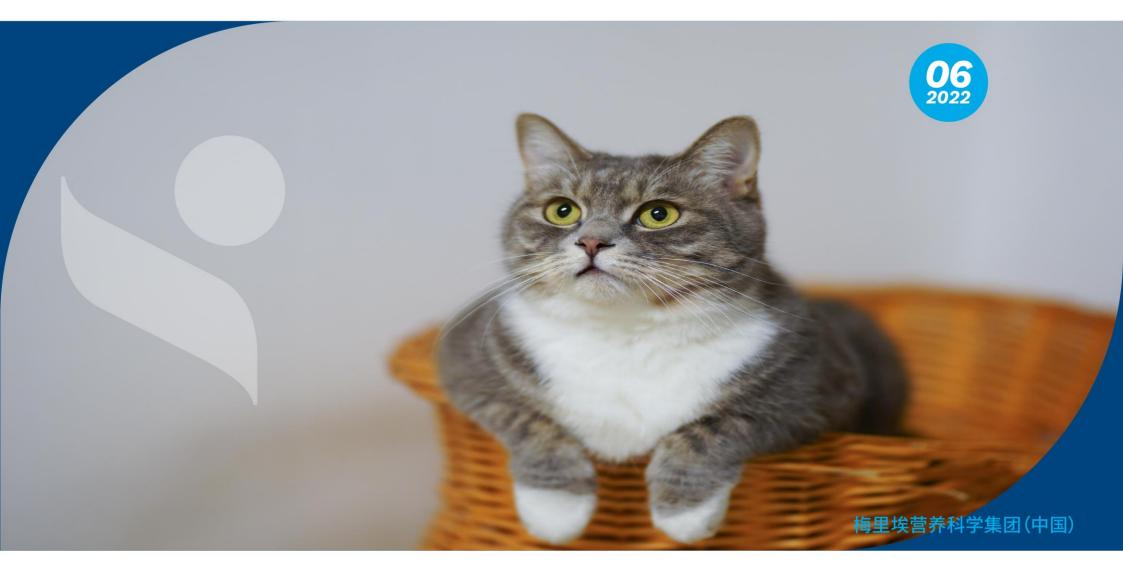
PETFOOD NEWS





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CVM Updates

FDA Conditionally Approves First Drug to Delay Onset of Congestive Heart Failure in Dogs

Today the U.S. Food and Drug Administration conditionally approved Vetmedin-CA1 (pimobendan) chewable tablets, the first drug indicated for delaying the onset of congestive heart failure in dogs with Stage B2 preclinical myxomatous mitral valve disease (MMVD). MMVD is a condition in dogs where an abnormal heart valve allows blood to leak backward (regurgitation), impacting the ability of the heart to pump blood and resulting in an enlarged heart (cardiomegaly). If left untreated, this condition may lead to heart failure and fluid accumulation in the lungs. Stage B2 preclinical MMVD refers to dogs with MMVD that have not yet developed signs of heart failure but have a moderate or loud mitral murmur due to a leaking mitral heart valve and have an enlarged heart.

MMVD occurs in many breeds of dogs. It most frequently occurs in smaller breed dogs, including Cavalier King Charles Spaniels, Yorkshire terriers, and dachshunds. MMVD should be diagnosed by a veterinarian based on comprehensive physical and cardiac examinations.

While Vetmedin is already fully approved for the management of the

signs of mild, moderate, or severe congestive heart failure in dogs due to MMVD or dilated cardiomyopathy, the conditionally approved indication for Vetmedin-CA1 is the first for dogs in the preclinical stage of MMVD who have a heart murmur and an abnormal enlargement of the heart but are not yet in congestive heart failure. In those dogs, Vetmedin-CA1 delays the onset of congestive heart failure, slowing the progression of MMVD. Vetmedin and Vetmedin-CA1 contain the same active ingredient, pimobendan, at the same dose, but will be marketed separately with two separate labels and unique application numbers.

An animal drug that addresses a serious or life-threatening disease, or addresses an unmet animal or human health need, for which demonstrating effectiveness would require complex or particularly difficult study or studies is eligible for conditional approval. The FDA determined that Vetmedin-CA1 is eligible for conditional approval because it met all of these criteria.

Conditional approval allows an animal drug sponsor to legally market its product after demonstrating that the drug is safe and manufactured in accordance with full approval standards, and that there is a reasonable expectation of the drug's effectiveness. The initial conditional approval is valid for one year with the potential for up to four annual renewals. During this time, the animal drug sponsor must demonstrate active progress toward proving substantial evidence of effectiveness for full approval. The animal drug sponsor has five years to obtain full approval



after receiving conditional approval, or it will no longer be allowed to be marketed.

The reasonable expectation of effectiveness of Vetmedin-CA1 was established in a long-term, multi-center field study in client-owned dogs that had cardiomegaly and met certain criteria for MMVD. Enrolled dogs were started on either Vetmedin-CA1 or a control chewable tablet with no active ingredient. The study monitored the length of time from when the dogs started treatment until when they either developed left-sided congestive heart failure or died or were euthanized due to cardiac disease (primary endpoints). The median time from starting treatment to reaching one of these primary endpoints was 1,228 days in the Vetmedin-CA1 group compared to 761 days in the control group, a difference of 467 days (15.6 months).

Adverse reactions were seen in dogs in both the Vetmedin-CA1 and control groups. Many of these reactions are associated with the natural progression of MMVD and the age of enrolled dogs. Cough was the most frequently reported adverse reaction, which is commonly reported in dogs with MMVD, and the incidence was similar between the Vetmedin-CA1 and control groups. Lethargy, lack of appetite, rapid breathing (tachypnea), collapse, irregular heartbeat (arrhythmia), and temporary loss of consciousness caused by decreased blood pressure (syncope) were reported in dogs treated with Vetmedin-CA1 and may also be associated with the progression of MMVD. Adverse reactions

unrelated to the progression of MMVD in dogs treated with Vetmedin-CA1 included diarrhea, vomiting, pain, lameness, arthritis, urinary tract infection, and seizure.

Vetmedin-CA1 is only available by prescription from a licensed veterinarian because veterinary expertise is required to diagnose MMVD, and to determine if Vetmedin-CA1 is an appropriate treatment. Dogs suspected of having MMVD should undergo a comprehensive physical and cardiac examination. Vetmedin-CA1 should only be used in dogs with preclinical MMVD that have a moderate or loud heart murmur due to mitral regurgitation and cardiomegaly (Stage B2 MMVD, 2019 ACVIM Consensus Statement).

The FDA granted conditional approval of Vetmedin-CA1 to Boehringer Ingelheim Animal Health USA.

FDA Requests Public Comments on the Use of Antimicrobials in Companion Animals

Update: June 10, 2022

In response to requests filed by stakeholders, the FDA is extending the comment period for "Request for Public Input on Antimicrobial Use in Companion Animals for the Center for Veterinary Medicine; Request for Comments" by an additional 90 days. The comment period will now close on September 14, 2022. For additional information,



see: <u>Antimicrobial Drug Use in Companion Animals; Extension of</u> Comment Period.

FDA Warns Four Companies for Illegally Selling CBD Products Intended for Use in Food-Producing Animals

The U.S. Food and Drug Administration (FDA) has issued warning letters to four companies illegally selling unapproved animal drugs containing cannabidiol (CBD) that are intended for use in food-producing animals. The companies include Haniel Concepts dba Free State Oils, Hope Botanicals, Plantacea LLC dba Kahm CBD and Kingdom Harvest. While the FDA does not know the current extent of CBD use in food-producing animals, the agency is taking steps regarding these unapproved and potentially unsafe products now to help protect animals and the safety of the food supply.

Under the Federal Food, Drug, and Cosmetic (FD&C) Act, any product intended to treat a disease or otherwise have a therapeutic or medical use, and any product (other than a food) that is intended to affect the structure or function of the body of humans or animals, is a drug. The FDA has not approved any human or animal products containing CBD other than one prescription drug product to treat rare, severe forms of epilepsy in children. Therefore, all other CBD products intended for use as a drug are considered unapproved drugs and are illegal to sell. Some of the claims made by the companies in the warning letters refer to

helping "farm animals with stress, anxiety, pain, inflammation, injuries..." and providing "support to help manage normal stress, promote a calming effect, maintain a healthy gut, maintain a normal and balanced behavior, maintain healthy joints, maintain a normal inflammatory response...." These claims, among others, establish the intended use of the products as drugs.

Unapproved drugs like these CBD products have not been evaluated by the FDA to determine whether they are effective for their intended use, what the proper dosage might be, how the products could interact with FDA-approved drugs, or whether they have dangerous side effects or other safety concerns.

The FDA is concerned about these CBD products for food-producing animals not only because CBD could pose a safety risk for the animals themselves, but also because of lack of data about the safety of the human food products (meat, milk and eggs) from the animals that have consumed these CBD products.

After a food-producing animal is treated with a drug, residues of that drug may be present in the milk, eggs, or meat if the animal is milked, eggs are collected, or the animal is sent to slaughter before the drug is completely out of its system. Part of the animal drug approval process includes setting a withdrawal period to establish the minimum amount of time between the last dose of a drug and the slaughter or harvesting



of food products from the treated animals. Since CBD is an unapproved drug, the FDA has not had the opportunity to evaluate CBD residues in food or to establish an appropriate withdrawal period.

To date, there is a lack of data on the residues that may result when food-producing animals consume CBD products. There is also a lack of data on what levels of potential residues are safe for a person consuming the foods that come from CBD-treated animals. In addition, the manufacturing processes of unapproved CBD drug products have not been reviewed by the FDA as part of the human or animal drug approval processes. The FDA has received reports of some CBD products containing contaminants such as pesticides and heavy metals, thus introducing additional concerns for the use of CBD products.

The FDA is also concerned that consumers may postpone seeking professional medical care for their animals, such as getting a proper diagnosis, treatment and supportive care, because they are relying on unproven claims associated with unapproved CBD products. Many of the products marketed by the four companies that received warning letters made claims about alleviating anxiety. Anxiety in animals can be a signal of a range of medical conditions requiring veterinary care from a licensed professional. This is why it is critical that consumers talk to a health care professional about the best way to treat medical conditions using approved treatment options that have been proven to be safe and effective.

In addition to the CBD products marketed for food-producing animals, Free State Oils, Hope Botanicals, Kahm CBD and Kingdom Harvest also sell CBD-containing unapproved new drugs for humans and adulterated human foods. Some of the products were also marketed as dietary supplements even though CBD-containing products do not meet the definition of a dietary supplement. These products include oils, creams, extracts, salves, and gummies.

The FDA has requested responses from the companies within 15 working days stating how they will address these violations and prevent their recurrence. Failure to promptly address the violations may result in legal action, including product seizure and/or injunction.

The FDA encourages human and animal health care professionals and consumers to report adverse reactions associated with these or similar products to the agency. To report a problem with an animal product, visit fda.gov/vetproductreporting. To report a problem with a human product, use FDA's MedWatch program.



Industry News

Cost may hinder fresh dog, cat food sales growth



Price was the primary block to fresh pet food purchasing. Forty-four percent of survey respondents stated that they didn't buy fresh because it was too expensive.

Dry kibble remains the most frequently bought dog and cat food, but pet owners' choice of that format may be driven by price and presence in stores more than preference. During her presentation at Petfood Forum 2021, Stephanie Wissink, senior research analyst and managing director for financial services firm Jefferies, shared data on pet food preferences that her team collected in a survey of 1,450 pet owners in the United States.

Of those survey respondents, 81% reported using dry kibble pet foods, while 50% used wet or canned varieties. Seventeen percent bought fresh pet food while 9% purchased raw. However, when asked which products they would buy if cost and availability were not a factor, those numbers shifted. Kibble dropped to 36% and wet to 21%. However, 34% of respondents would buy fresh and 7% raw, if money was no object and the products were readily available.

Relative price hinders fresh pet food sales

"One of the key takeaways here is that in regard to fresh, if cost were not a factor, the proportion of fresh would be much higher, nearly doubling the current penetration level and pushing to over one third of pet households," Wissink said.

Price was the primary block to fresh pet food purchasing. Forty-four percent of survey respondents stated that they didn't buy fresh because it was too expensive. Meanwhile, 16% simply didn't want to switch, and 14% said it was harder to store or serve. Thirteen percent stated they believed it was not as healthy.



"Fresh demand is nearly two times the offer, but cost is the primary hurdle for consumers to purchase more fresh," she said.

While price may hinder fresh pet food sales growth, cost wasn't the most important factor pet owners considered when choosing a brand. Overall, 47% of dog and cat owners in the survey chose their pet food based on nutrition and health factors, while 16% chose based on price.

Health and price also influenced survey respondents' likelihood of switching brands. The survey asked U.S. pet owners about their motivations for switching brands. Price (22%), health claims (23%) and vet recommendations (22%) were the top three, followed by pet preference at 16%.

"Price, health and vet recommendations are the three biggest factors," she said. "So, if you're pet food brands is trying to steal market share away from someone else, vets are the voice of authority in the industry, but also think about what you can do in terms of claims on your packaging, and how do you stand relatively in terms of value and price."

Freshpet recalls one lot of fresh dog food over Salmonella

Freshpet Inc. voluntarily recalled of a single lot of Freshpet Select Fresh From the Kitchen Home Cooked Chicken Recipe (4.5 lb. bag), with sell by date of 10/29/22, due to potential contamination with Salmonella, according to the U.S. Food and Drug Administration.

Freshpet Inc. voluntarily recalled of a single lot of Freshpet Select Fresh From the Kitchen Home Cooked Chicken Recipe (4.5 lb. bag), with sell by date of 10/29/22, due to potential contamination with Salmonella, according to the U.S. Food and Drug Administration. Freshpet had designated this single lot for destruction, but a small portion of the lot was inadvertently shipped to retailers in limited geographic markets in the last two weeks. No other Freshpet products or lot codes are impacted by this recall. To date, Freshpet has received no reports of illness, injury, or adverse reaction. The lot may have sold at limited Walmart stores in Alabama and Georgia; and limited Target stores and other select retailers in Connecticut, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Puerto Rico, Rhode Island, Vermont and West Virginia.

Lot Code: 627975011673

• Sell by Date: 10/29/22

Top 10 pet food markets 2027 forecast; US top, Asia rising

Indonesia's pet food market had the highest forecast average CAGR from 2022 to 2027.

Analysts forecast that in 2027, the United States will still be the largest pet food, treat and other product market on Earth, but it won't be the fastest-growing by a long shot. Emerging markets in Brazil, China and similar nations have been growing quickly and will continue growing into



2027. Latin America's dog and cat food markets may see growth of 7% to 8% in the coming five years. The Asia-Pacific region will also grow rapidly and may nearly equal Western Europe by 2027. Along with China, Indonesia, Taiwan and South Korea will be among the top ten pet food and treat markets in 2027.

Euromonitor International analysts forecast what ten nations will be the top pet food market from 2022 to 2027 and which will be growing fastest. Anissa Wolf, research manager for Euromonitor, presented that data at Foro Mascotas in Guadalajara, Jalisco, Mexico.

Forecast top 10 pet food markets 2022-2027

- United States Between 2022 and 2027, the U.S. pet food market is forecast to have absolute growth reaching US\$9 billion, but average compound annual growth (CAGR) may be less than 5%
- China China will grow approximately US\$8 billion during that time, but with an average CAGR greater than 10%.
- Brazil Brazil's absolute growth from 2022 to 2027 is forecast to trail
 China and the U.S. at approximately US\$4 billion, with a CAGR of near 10%.
- Canada Canada and the following nations will have absolute growth of less than US\$2 billion each, but with different levels of CAGR. Canada's pet food market may see a CAGR of approximately

5% from 2022 to 2027.

- Germany Germany's CAGR may be approximately 2.5% from 2022 to 2027 on average.
- Mexico Another emerging market, Euromonitor forecast an average CAGR of greater than 5%.
- France France's pet food market may have an average CAGR of near 2%.
- Indonesia Indonesia's pet food market had the highest forecast average CAGR from 2022 to 2027 with 20%.
- Taiwan Taiwan may have a CAGR near 7%.
- South Korea South Korea's forecast growth may exceed 5%.

Cat food growing fast globally

Among those top pet food markets and many others, cat food may become a larger segment of the market by 2027. Currently, cat food is the fastest growing category in both the United States and China, along with several European nations. The U.S. leads the cat food market, Wolf said, but the Asia-Pacific region has greater than 10% growth into the future.



5 trends shape the global pet food industry in 2022

Despite all the changes the past few years have brought, many of the same trends remain dominant in the pet food industry.

Despite all the changes the past few years have brought, many of the same trends remain dominant in the pet food industry. The intertwined trends of premiumization and humanization grew yet stronger during the lingering COVID-19 pandemic. The move towards e-commerce accelerated while people were stuck at home. Demand for natural ingredients with nutritional value grew. Concern for the health of ecosystems echoed people's concerns for their own health, along with growing awareness that future pandemic may results from poaching and habitat destruction. Anissa Wolf, research manager for Euromonitor International, discussed these five dominant trends in the pet food industry at Foro Mascotas in Guadalajara, Jalisco, Mexico.

Premiumization – Dog, cat and other pet owners want high-quality, nutritious ingredients in their animals' food. Premiumization involves giving pets foods made from ingredients people would accept on their own plates.

"Premiumization is the principal factor in the growth of pet food," Wolf said.

Worldwide in 2017, premium pet food sales stood at US\$34.9 billion. By 2027 that could climb to US\$59.2 billion.

Premiumization is no longer only for top brands. Private pet food brands have gained credibility and increased their premium offerings, she said.

Humanization – Pet owners likely wouldn't be moving towards premium pet foods if societal attitudes towards dogs, cats and other animals.

The western hemisphere has the highest self-reported rates of humanization. Wolf presented lifestyle survey data from Euromonitor. The Americas had the highest percentage of people perceiving pets as beloved family members, nearing 80%. North America, meaning Anglo-America, was slightly ahead of Latin America. Europe and Asia-Pacific regions followed, with both in the mid-sixty percentages. In the Middle East and Africa, a bit less than 60% of the respondents considered pets to be family.

Buying habits – Pet food e-commerce was already growing before the pandemic struck. The pandemic altered consumers' paths to purchase as lock-downs reduced the opportunity to shop in conventional retail channels. Especially among generations younger than 44, digital paths to purchase have grown, though in-store purchases are still the most frequent paths to purchase among all age groups.

Functional/natural ingredients – The health value of pet foods also motivates consumers more than ever now. Euromonitor reviewed the top health-related claims made by pet food brands. High protein was the most common, appearing in nearly 12% of products with claims available online. Natural claims were the second most frequent with more than 8%



of products claiming to be natural. Other top claims were related to vitamins, antioxidants, immune system health.

Sustainability – Pet owners are also concerned about maintaining the ability of humanity to provide future generations with the same standard of living that we enjoy. In a Euromonitor survey, pet owners reported higher rates of sustainable behaviors, such as reduced plastic use, meat consumption and food waste, while increasing their purchases of sustainably-produced items and packaging.

Human trends moving quickly into pet foods



Even pet food packaging looks like that of human food and the marketing follows strategies similar to those of baby products, health foods and other human items.

Parents scold children not to feed people-food to the dog, yet the line between the two keeps getting blurrier. Human and pet food trends have been converging for years. Premium pet foods grew in market share along with this pet humanization phenomenon. At first this meant mainly the ingredients. In 2016, David Sprinkle, publisher and research director at Packaged Facts, noted that the time gap between a trend hitting the human market and the pet space had receded. To some extent, pet trends may even feedback and influence human trends. Now many pet products are specifically designed to look like human consumables, from gourmet cookies to jerky. Even the packaging looks like that of human food and the marketing follows strategies similar to those of baby products, health foods and other human items.

"There used to be a delay in human food trends making their way into the pet food space," Ryan Wilson, vice president of marketing for Better Choice Company, parent company of Halo Pet, said in an email. "However, in the last five to ten years, we have seen that delay tighten. We are now seeing human food trends translate to pet at the same time. Due to this convergence, we closely watch the human food landscape and leverage these insights in our current product portfolio and in our innovation pipeline."



Sustainability movement in pet food

Some of the company's new products were specifically designed to resemble human products in the consumer packaged goods space. Beyond the food itself, pet food companies look to human trends in other aspects of the business. Scientific and market research provides evidence that pet owners tend to be more conscious of the ecological and social ramifications of their purchases. As the effects of environmental and social disturbance mount, pet owners have become increasingly aware of how their actions affects other animals, including *Homo sapiens*.

"Some recent trends that have been brought from the human space into the pet space are responsible sourcing certifications like GAP and MSC, packaging sustainability and upcycling," Wilson said.

These certifications are one way pet food companies can assure consumers that pet foods and treats are made from healthy ingredients and handled safely. Pet owners want to know that their purchases don't forfeit the ability of future generations to meet their own needs. Upcycling refers to using existing materials, especially those that would have been discarded, to make a value-added product. If you made a birdhouse from a milk carton in grade school, that was upcycling. Upcycling goes far beyond arts and crafts now, with whole businesses devoted to finding and repurposing everything from old gym floors to

misshapen conveyor belts. In the cases of the food system, otherwise unsaleable consumables become ingredients in new foods, human or pet.

Unused human food items seem a natural fit for pet food. Dogs and cats have eaten what we didn't since before Stonehenge's grand opening. Kids are still prone to reducing food waste by feeding unwanted portions to the dog. Like a kid at the dinner table, the human food system often rejects foods it thinks look funny. Misfit fruits and veggies may not fit through processing machines or people won't buy them fresh, for example. However, using crooked carrots and twisted 'taters to make pet food doesn't just fulfill the dinner-time adage of waste-not-want-not. Reducing food loss by turning it into pet food ingredients fights the global threat of a destabilized climate.

Not all fibers in cat food may control appetite

Pet food formulators may help address the cat obesity problem by creating weight-management recipes using certain ingredients that control appetite in cats.

Cat obesity remains a problem for pet owners around the world. In the most recent Association for Pet Obesity Prevention's (APOP) survey results available, U.S. veterinarians classified 33.8% of cats as obese in 2018. They identified 36.9% of cats as overweight. Pet food formulators



may help address the cat obesity problem by creating weight-management recipes using certain ingredients that control appetite in cats. A research team at Wageningen University conducted experiments to test the properties of foods that influence appetite and satiety in cats.

"Based on the work, protein levels and fermentable fibers can be considered to stimulate appetite control in restricted-fed cats," study co-author Guido Bosch, Ph.D., animal nutrition professor at Wageningen University, said in an email.

His team observed that not all fibers can be considered equal in pet food formulation. In their experiments, only certain fibers influenced appetite in cats.

"In one of our studies, we did not find any relationship between fiber and food motivation," he said. "It is therefore crucial to carefully consider the physicochemical properties of fibers that relate to gastrointestinal bulking, gelling, viscosity and fermentability. These specific properties can impact appetite between meals. We observed satiety-promoting effects of fermentable fiber, but not for a gelling and a viscous fiber. We might have tested food motivation of cats too early for the latter two fibers or these fibers are less effective in cats than in humans. Furthermore, it is of interest to explore if the observed effects remain after longer periods of feeding fermentable fiber-enriched

foods."

Cat digestion of fiber

Cats' and humans' digestion of fibers differ. Likewise, cats haven't evolved towards omnivory as dogs have. As obligate carnivores, cats adapted to eat prey animals whole, minus a few tufts of fur. Those mice, rabbits and other prey had plant matter in their own guts from their last meals. This matryoshka doll of nutrition means that feral cats do consume fibers, although in a very different way than domestic cats.

"On one hand, given a cat's short and underdeveloped colon and relatively short colonic residence time, it may indeed be somewhat surprising that a fermentable plant fiber impacted the cat's appetite," he said. "On the other hand, cats eating small prey also have fermentable substances (animal fibers) in their gut that could impact the digestive physiology and appetite in a similar way plant fibers do. In this stage we do not know if plant or animal fibers can better stimulate specific aspects of the complex feedback from the gut to the brain resulting in appetite control."

In follow-up work, Bosch's team will focus on how food properties impact feeding patterns and energy intake over longer periods. Ultimately, they aim to provide insights into how formulators can make foods that prevent the development of obesity, as well as treat overweight and obese cats.



PETFOOD NEWS - REPLY

If you have any views or comments on the articles in the petfood industry news,please feel free to contact us on the following email address: sales.china@mxns.cn