



The day-to-day habits and choices of every one of us are crucial for a sustainable future and for the generations to come. IPV PACK responds to this major challenge with materials designed for the circular economy.

Our green packs guarantee the safety and shelf life of products and the mechanical robustness required for filling and transport, as well as meeting the client's aesthetic and marketing needs.

Contact us as soon as possible for more information























Food and ingredients

You'll discover a deep dive into two of the hottest categories in the industry: alternative proteins and raw pet food. What are the latest developments? And what is the debate around health benefits?



CBD and pet health

The focus on pet health has been exploding. CBD in particular continues to trend. Yet, what does the data say? And are the health benefits actually proven? Plus some other health-related topics like weight reduction, skin allergies and more.



US and Canada

What is the current state of the largest pet market in the world, the US? And what are the latest consumer trends and developments in this huge market? We also shine a light on the smaller, yet equally interesting Canadian pet market and the journey it has been on in the past few years.



GlobalPETS Forum

The industry is coming together again for the networking event of the year. What can you expect? Which speakers will be there? And the award nominees. Page 48



CBD for pets

As this category gains more attention, we dig into the data around the potential of this market, consumer thoughts, retailer attitudes and more. Page 30



Interview with Pet Valu

What has the largest Canadian pet retailer been up to? We sit down with its CEO, Richard Maltsbarger, to discuss recent developments and future plans. Page 61







Autumn is here ...

In the September issue of PETS International, I mentioned the clouds above the industry and the global economy. Well, they now seem to be getting darker and darker. And as they say, 'When it rains, it pours'. Rising energy prices are starting to have an impact on our big energy-consuming industry. Delivery issues are becoming more frequent. And finding talent is ever more difficult. While it won't be an easy ride through this never-beforeseen combination of challenges, the industry's robustness and strong consumer demand will ultimately help us to weather the storm.

One innovation that is taking the industry in a more positive direction is the use of alternative proteins. The market is clearly exploding – as we could see at this year's trade shows like Interzoo and Superzoo, compared to previous editions. So we are diving into current alternative protein trends, including seaweed. And finding out the latest on insect-based pet food.

Another trending category is CBD for pets. What are the pros and cons? And what does science have to say – is it actually safe? Most interestingly, we look at all the consumer data for a better picture of the market. Other health topics we focus on are weight reduction, skin allergies and active pet accessories.

This issue's country/region deep dive covers the US and Canada. The US is the clear front-runner in the pet industry, so our readers from across the world are given a glimpse of where the industry in their country is likely to be heading in the near future. And while the Canadian industry is much smaller, it's still an interesting market to highlight: the CEO of one of the largest Canadian pet retailers gives us some insights.

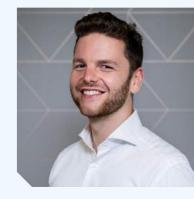
Finally, we are unveiling more details of our upcoming GlobalPETS Forum in Berlin. You'll discover what the event is all about – its theme, some of our keynote speakers, and the nominees for the GlobalPETS Forum award. Ticket sales have started, so I hope to see you there!

Happy reading,

Philippe Vanderhoydonck Managing Director

Philippe

PS: If you don't receive our newsletters yet, go to globalpetindustry.com and sign up to keep a finger on the pulse of the industry.





Intermedium Publishers BV James Cookstraat 13 1056 RW Amsterdam (NL)

+31-33-4225833 content@pets.nl

Editorial team

Philippe Vanderhoydonck (Managing Director)
David Palacios Rubio (Editorial Manager)
Heiny van den Ham (Senior Editor)
Editors: Martine Croll, Lynn Radford,
Mandy Wolters-Savage

Graphic designJack Waas

© Copyright 2022, Intermedium Publishers BV. All rights reserved.

While we, as the publisher, aim for accuracy and completeness of the information presented, we cannot guarantee that. We cannot be held liable for using this information. And we are not responsible for the content of advertisements or sponsored editorial.

globalpetindustry.com





Stay up-to-date on what's shaping the pet industry. Subscribe to our newsletter: **globalpetindustry.com**

Fressnapf expands operations in South-Eastern Europe

The German retailer will be opening a new office later this month in the Hungarian capital Budapest. It will serve as the 'starting point' for further expansion of its offline and online regional business.

The company also announced it will be opening 14 new stores in Romania – including the capital Bucharest – by the end of this year. In addition, it will be taking over 11 Super Zoo locations across the country. Six stores are already operative and 5 others will be added in the next few months.

At the beginning of September, the retailer also took over 4 Super Zoo stores in Croatia in a bid to establish its ecosystem there. Fressnapf expects to open 10 more stores in Croatia by the end of 2022, expanding the network to more than 35 locations.

Walmart tests new project to recycle pet food packaging

Walmart, the world's leading retailer, has partnered with recycling company TerraCycle for recycling hubs in 3 of its stores in Arkansas and Oklahoma. The recycling centers accept plastic pet food bags, pouches, treats and packaging, as well as litter, birdseed and cedar chip bags.

Walmart says the project could potentially be expanded to their stores in other US states.



Bond Pet Food raises \$17.5 million in Series A round

The Colorado-based producer Bond Pet Food is to build a new 15,000 sq foot facility and is planning to expand its meat protein portfolio. The company also wants to "more than triple" the size of its team – strengthening its science, technical and regulatory capabilities.

CEO and co-founder Rich Kelleman says the capital injection will allow the company to take its work "to the next level". Bond Pet Food recently completed a seed funding round of \$2.5 million, bringing its total investment to date to \$20 million.



New data on Italian and British pet parent attitudes

MEDIATIC's Permanent Pet Watch survey findings show that 32% of Italian pet parents buy supplements for their pets. Online (37%) and pharmacies (36%) are the most popular channels to purchase these products, followed by pet stores (17%) and the manufacturer's website (7%). More than half of the respondents (58%) spend between €20 and €58 each month. Three out of 10 pet parents say they spend less than €20 per month.

The UK charity Dogs Trust has warned that price increases are leaving many dog owners unable to provide for their dogs. A new survey revealed that vet bills are the biggest financial concern. 20% of pet parents are worried about the cost of dog food, while 15% are concerned about insurance costs.



Acquisitions by Voff Premium Pet Food and ZIWI

Swedish pet food manufacturer Voff has acquired Nova Dog Chews to broaden its portfolio of natural premium pet food brands and to strengthen its position in Europe and, in particular, the UK market. Nova operates in the UK and France, supplying British customers with over 200 different products. This acquisition is the 8th Voff has made since its launch in 2014.

In New Zealand, ZIWI has invested in Freeze Dried Food (FDF) in a bid to achieve "sustainable innovative growth". The company will have access to FDF's freeze-drying technology, a method of drying frozen pet food inside a vacuum at extremely low temperatures.



Indian consumer goods giant Emami expands into pet segment

The Emami Group has acquired a 30% stake in pet care startup Cannis Lupus to roll out a range of natural, Ayurvedic and chemical-free products for pets.

A company spokesperson tells PETS International that the investment is in line with their expansion strategy in the FMCG space. Emami, as a strategic investor, will not be involved in the day-to-day business, but will offer support "as and when required" to grow the business.

Headquartered in Calcutta, Emami is one of the leading personal care and healthcare companies in India, with more than 300 products based on Ayurvedic formulations.

Chewy recovers sales but cuts outlook for 2022

Chewy posted net sales of \$2.43 billion in the second quarter of the fiscal year 2022 ending 31 July, a year-on-year growth of 12.8%.

In June, they forecasted yearly net sales of between \$10.2 and \$10.4 billion (+15-17%). The company has now trimmed its outlook and expects sales of between \$9.9 and \$10 billion (+11%-12%) due to a slowdown in demand.

"Pet category consumers responded to growing economic uncertainty by curtailing some of their purchase activity, leading to industry-wide declines in unit volume," the company said in a letter to investors.



Chinese pet care manufacturer successfully goes public

Wenzhou Yuanfei Pet Toy Products started an initial public offering (IPO) for ¥409 million (\$/€60M) in August and its value increased by 44% after the first trading day.

The company has stated that funds raised from the IPO will be used to expand its annual production capacity of 3,000 tons of gum and 25 million pet traction appliances.

Chinese sources have pointed out that the company wishes to increase funds for its 'intellectual storage technology reform' project and to add more workforce.



Pet food companies join sustainable packaging initiative

Canidae, Earth Animal, Instinct, Petcurean, and Primal Pet Foods have taken a "collective" step and signed the Pet Sustainability Coalition (PSC) pledge. This aims to increase pet industry participation in the move toward recyclable, reusable or compostable packaging by 2025.

Commenting on the new signatories, PSC Executive Director Caitlyn Dudas noted that the pledge will provide a "long-term pathway to sustainable packaging, including tools, a marketplace and technical support for brands to feasibly meet their public commitment".



Brazilian online retailer PetLove opens its first store in São Paulo

After 2 years focused on e-commerce, PetLove now wants to gain market share offline and leverage the brand's growth, with stores in local communities all around the country. The first one to open is 400 sqm, and the company has developed a digital concept that integrates in-person and online shopping.

PetLove expects to open a number of new physical stores throughout 2022. In August 2021, it received a capital injection of R\$750 million (\$/€140M) in a bid to "democratize and simplify pet care".



US insurance industry passes "clear rules" for its pet business

The National Association of Insurance Commissioners in the US has approved a model law setting regulatory standards for companies operating in the sector.

The Pet Insurance Model Act establishes rules for the sale of pet premiums and provides disclosures to pet owners interested in purchasing insurance products. The text includes several consumer protections related to policy renewals, required disclosures of waiting periods, policy limits, conditions and benefit schedules. "Robust disclosures allow consumers to affirmatively choose the policy that is best for them in a world with dozens of available options."

The model law also limits how insurers can deny pet insurance claims related to pre-existing conditions for covered pets.



Mars Petcare appoints new VP

Alex Cedeno, who oversaw Research & Development (R&D) activities at J.M. Smucker Company for more than 7 years, will now lead Mars Petcare's R&D strategy in North America through "disruption and innovation" in his role as VP.



He will provide strategic and operational leadership across quality and food safety, product, process and packaging innovation, renovation and productivity, sustainability, and regulatory and scientific affairs.

Industry veteran Poul Weihrauch started his tenure as Mars Global President in September, in the manufacturer's bid to take the company to the "next level". Mars believes that Weihrauch is a "strong" leader who will protect the company's legacy while leading the organization toward "what promises to be a bright and exciting future".

DELICKCIOUS — THE LANGUAGE OF CARE. WHY IT'S IMPORTANT FOR PETS TO FEEL ENJOYMENT FROM FOOD

Have you ever seen parents glow with happiness when their baby enjoys a new food for the first time? Food culture is a language of love. The CLUB 4 PAWS brand is the perfect match for treating them with something delicious.

A study by Kormotech showed that, to pamper their pets, pet parents mainly buy wet food, among other things. This spurred us on to create a new Club 4 Paws product for pampering your pets — the Selection line.

Technology with love

To create the best type of wet food, Kormotech has a new production technology — Power Heater — allowing us to manufacture wet food in the form of torn pieces. In parallel, we have developed a new way of slicing wet food. We call the product 'meat strips'.

Its form, as well as the quality and variety of its ingredients, allow us to reach a new level: pet food that is much more like what the owners themselves eat. The recipes have been developed and improved, and carefully tested so that the pieces are both tasty and visually attractive.

Tasty branding

The taste of our new products is emphasized even more by the branding — the packaging design, communication, and delicious names of the sub-lines: Purr-For Slices, Meow-For Stripes, Paws-Licking Kibbles, Tail-Wagging Slices, and Love-stare Pate. The packaging depicts cats and dogs, who have become the new brand heroes.

Our new category is called Delickcious, combining the words Delicious and Lick — because these products are so tasty that our four-legged friends are ready to lick either their bowl or their owner as a sign of gratitude for the yumminess!

When cats and dogs taste Selection products, what do they feel? Pleasure, joy and unconditional love. For the owner, it's about more than just the basic need to feed their pet.

Are you our new distributor?

During the InterZoo exhibition, the new line left distributors excited. This is not surprising: all components of the product suggest that this many consumers will love it.

Will you be the distributor for this line in your country? Email us at office@kormotech.com.ua



Plaček Group to expand its network in Eastern Europe

The pet retailer Plaček recently inaugurated its 150th Super zoo store in the Czech Republic and plans to open 10 more by the end of the year.

Located in Ústí nad Labem, 90 km north of the capital Prague, the new shop encompasses 500 sqm. As well as pet products, it sells small pets such as aquarium fish, terrarium animals and birds.

In addition to expanding its stores, the retailer plans to grow the distribution of products from its own brands. A company spokesperson told PETS International that they are looking for partners around the world to export their brands to independent retailer distribution channels.



Petz sells 56% more online and increases omnichannel customers

The São Paulo-based company Petz has announced that its online business rose to R\$242.9 million (\$/ \in 47.7M) in the second quarter of 2022, with App Petz accounting for 67% of those sales. The company now has 2.3 million omnichannel customers (+20%).

"We remain focused on executing the project to transform our business model," stated company CEO Sergio Zimerman.

Petz's net income reached R\$32.8 million (\$/€6.44M) in the same period, a 35.7% uplift, and the company plans to open 50 new stores by December.



Pet Supplies Plus to open a \$53 million distribution center in South Carolina

A new Pet Supplies Plus state-of-the-art distribution center is expected to begin operation early 2023. It is part of the retailer's strategy to increase its distribution capabilities across the Southwest region.

The new operation will be the company's 4th distribution center in the US. Pet Supplies Plus has more than 630 stores, most of them operated by franchisees.





Pet Advocacy Network announces new Director of Government Affairs

Ashley Brinkman will now be in charge of engaging with state and federal lawmakers on pet-related laws and regulations on behalf of the US Pet Advocacy Network. Mike Bober,

President and CEO of the organization, says they are confident she will "thrive in this role".

Brinkman previously held organizational and analytical roles in the energy and recreational sectors.

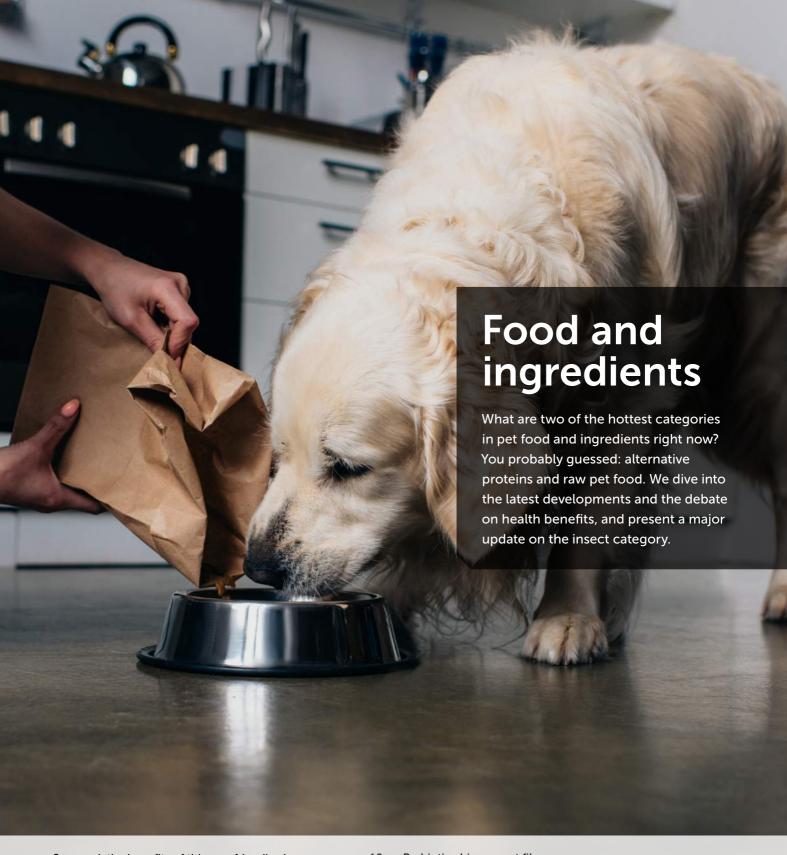


Mondi opens new laboratory to test recyclability

The packaging multinational Mondi has launched a new facility in Austria that

will investigate the use of non-paper components. With this new laboratory, the company seeks to speed up the process of developing sustainable packaging. Currently, 78% of the group-wide portfolio is already either reusable, recyclable or compostable.

Mondi also plans to use the new lab to determine how the design of new packaging can be improved, as well as how best to increase the circularity of its materials.



Seaweed: the benefits of this eco-friendly algae	10	Prebiotic chicory root fiber:	
Insects for pet food: an update	12	nutrition beyond digestive health	23
Eight recently funded insect start-ups to watch	14	The growing popularity of raw pet food toppers	24
Insect-based protein – living up to expectations?	16	Slow-cooked food: following the human way?	26
Ÿnsect france	19	Claims regarding raw pet food: reality and myths	27
The insect pet food market – room for growth?	20		

Seaweed: the benefits of this eco-friendly algae Companion animals, in particular dogs, benefit from the physiological advantages seaweed offers, including improved immune function, gut health, as well as joint and coat health.

Seaweed has been used for health and medicine for thousands of years, and it is not only beneficial to humans. It can be used in a variety of ways, including as a source of novel protein, omega 3, macronutrients, vitamins, minerals and other bioactive substances.

Seaweed as a food source sits comfortably at the juncture of the emerging premium pet food category. It offers a sustainable alternative to the carbon and resource-intensive traditional livestock industries, while simultaneously catering to plant-based, healthy and natural features dog owners are currently seeking.

Why alternative proteins?

As global populations of humans and pets continue to increase, so too does the pressure on food and resources. In fact, pets are estimated to account for up to 20% of the world's meat and fish consumption. Although a portion of pet meat and fish consumption includes by-products that might otherwise be wasted, there has been an increasing demand for humangrade and premium meat cuts being used in the pet industry.

It is expected that the global demand for protein will increase by 50% by 2050. An alarming figure, especially when it is widely accepted that reducing meat consumption is key to curbing greenhouse gas emissions.

Given these facts, the pet food industry needs to embrace innovation and sustainability as the way forward. In order to reduce our dependence on precious natural resources and habitats, this industry must look to the utilization of nutritious ingredients which offer a low-carbon footprint.

Alternative proteins such as seaweed can play a powerful role in seeking such solutions. It offers a complete source of protein, requiring minimal resources to grow and having a fraction of the carbon footprint when compared to traditional livestock.

Environmental power

In fact, farmed seaweed offers an alternative protein source for pets and humans, without placing a demand on agricultural land and its many inputs. The power of these marine systems is immense, absorbing 50 times more carbon than land forests, while offering significant productive commercial benefits. This means that 50 times more seaweed can be produced on a hectare than wheat, and 10 times more protein per hectare than cattle farms.

For dogs, seaweed offers a complete protein (50%) source, which contains all the essential amino acids that they require.

Macronutrients, vitamins and minerals

Besides pet food, seaweed offers a source of nutrientdense food and natural materials for human and animal feeds, biofertilizers, cosmetics, medical applications and bioplastics.

The Food and Agriculture Organization (FAO) recognizes the 'rich composition of macronutrients' found in seaweed, such as sodium, calcium, magnesium, potassium, chlorine, sulfur and phosphorus, as well as micronutrients (iodine, iron, zinc, copper, selenium, molybdenum, fluoride, manganese, boron, nickel and cobalt) and vitamins (B12, A, K).

For dogs, seaweed offers a complete protein (50%) source, which contains all the essential amino acids that an animal requires.

In animal and human studies, seaweed carbohydrates have been shown to have a variety of other benefits, in particular in supporting intestinal health and the immune system. A recent study, from the University of Wollongong in Australia, demonstrates the anti-inflammatory nature and healthy microbiome shift linked to the supplementation of oral algal sulfated polysaccharides.

Other studies document how macro algae polysaccharides reinforce the intestinal barrier and activate immune cells, improving gut integrity and the immune response. These benefits can be harnessed to improve a pet's metabolism and overall health.

Essential fatty acids

Omega-3 fatty acids (DHA and EPA) – of which marine algae are important sustainable sources – are essential for animal nutrition, as most animals, including humans, are not able to produce them; or, at least, not at the rate needed to meet metabolic demands

However, the lipidic profile varies between seaweed species when compared to terrestrial plants. They present a higher abundance of highly unsaturated fatty acids, namely EPA, DHA and omega 6 ARA. Omega 3 is essential for healthy cardiovascular, brain and joint function in pets. In addition, Omega 3 is also a powerful anti-inflammatory, reducing the effect of skin allergies; it supports the skin barrier and improves coat health.

The FAO recognizes the rich composition of macronutrients of seaweed.

Supporting pet health

As the absolute number of pet dogs has risen across the globe, so too has the awareness of canine health conditions and dietary issues. Given the increasing rate of chronic health conditions of dogs, it is unsurprising that single protein diets, natural and veterinary diets are on the rise, as pet owners recognize the importance of nutrition for their pet's health.

Seaweed, fungi and insects are all alternate ingredients that can be harnessed for their biological properties and proteins for supporting pet health and nutrition with minimal environmental impact.

Popularization in the premium segment

Pet food choices tend to mirror that of humans, and as Jorge Martinez Carrillo from ADM Animal Nutrition acknowledges: "Premiumization is more frequently expected by global pet owners, many of whom are interested in flexitarian lifestyles and sustainable food sources for themselves and their family members."

He adds that this premium and super-premium trend is dominated by "all-natural and clean-label claims, including foods and treats made from organic and non-GMO ingredients without the use of artificial preservatives. Natural flavors and colors that look and taste great are also in demand."

Alternative proteins are also a popular food choice within this premium food category according to Juan Gomez, global director at Alltech, given they are "encompassed within sustainability efforts".

Conclusion

In summary, seaweed can be utilized as a sustainable plant-based source of protein, omega 3, macronutrients, vitamins and minerals, providing excellent nutritional benefits with a low carbon footprint. •





Stephanie Stubbe Kat Buchanan AniPal Anipal.com.au



From insects to worms, the potential of alternative proteins for the pet food industry is huge. Such proteins are not only a way to grow business but, importantly, they enable companies to achieve sustainability goals at the same time.

In a world of ever-increasing protein consumption by humans, alternative and more sustainable sources are being sought by scientists and the industry alike to contribute to pet diets.

Global insect pet food market (estimated value)



Source: Future Market Insights (FMI)

An insect-based future

It is estimated that, in 2021, the global insect-based pet food market accounted for a \$7 billion turnover in pet food sales. These sales are expected to increase annually by some 9.3% until the end of the decade.

In fact, the total turnover of insect feed operators is expected to exceed \$2 billion per year by the end of the decade, with the sector generating up to 25,000 jobs by 2030.

The International Platform of Insects for Food and Feed (IPIFF) forecasts that by 2025, no less than 40-50% of the demand for insect meal will come from the pet food sector.

Interestingly, more than \$1 billion has been invested in this sector since its inception, and this figure is expected to grow to \$3 billion through to 2025.

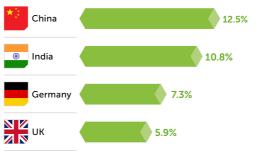
Black soldier fly – fast conquering the market

This novel feed ingredient is fast gaining popularity among pet food manufacturers, especially since farming insects is significantly low in greenhouse gas and methane emissions.

In Europe, the use of black soldier fly larvae (BSFL) in pet food formulations was approved several years ago already. The Association of American Feed Control Officials (AAFCO) formally approved BSFL to be used in adult dog food in August 2022. Up to now, AAFCO has not received any ingredient definition request to expand the use of BSFL in cat food.

Yearly increase insect-based pet food market

(projection, period 2021-2031)



Source: Future Market Insights (FMI)

Some sources claim BSFL accounted for 35% of the insect pet food market share in 2021. No wonder the number of companies farming BSFL for the pet food



The insect farming sector is expected to create 25,000 new jobs by 2030.

industry is also on the rise. Some experts forecast an increase in the segment of 30.5% in the coming years, reaching a value of about \$4 billion by 2033.

PETS International learned that since the official approval of BSFL in the US, different states are seeing an increase in registered dog food products containing this ingredient.

More research?

Recently, the British Veterinary Association (BVA) recognized the 'exciting health and environmental opportunities' of insect protein. At the same time, they also expressed their concern for insect welfare, as well as over-enthusiasm in the market for a source of protein that has not yet fully been researched.

"We believe more research is needed, to be certain." insects can fully meet the nutritional needs of pets over their lifetimes," is the conclusion of BVA President Justine Shotton, speaking to PETS International. Shotton believes that "there is not yet enough evidence" to support entirely replacing current pet food diets. She also underlines that most of the meat that goes into pet food is from cuts not eaten by humans, so these may otherwise go to waste if replaced by insect protein. •



David Palacios Rubio Editorial Manager GlobalPETS





The power of Superfoods

BLOOMY™ SuperF is Italfeed's latest innovative product. The new superpremium blend has been carefully made by selecting and precisely proportionating superfoods to support cats and dogs' wellbeing, health and longevity.

Based on: Spinach Pumpkin Cranberry Pomegranate Green tea









Eight recently funded insect start-ups to watch

As insects have the potential of becoming a go-to source for pet protein, this niche market is gaining traction and the number of dedicated start-ups is on the rise. As is the interest of investors.

The pressure from climate change is growing, and pet parents are increasingly looking for sustainable pet food alternatives. In fact, according to the University of California, traditional pet food is responsible for 25% to 30% of the environmental impact of meat production.

Not surprisingly, therefore, is the recent surge in the number of insect product-based start-ups in the pet food industry. The 8 companies below caught the interest of investors and raked in new funding in 2022 for expansion and further development.

Innovafeed

The Paris-based insect producer has recently raised \$250 million in a Series-D funding led by Qatar Investment Authority and other investors, such as ADM and Cargill.

The capital injection will be used to increase production in the insect protein production site in the north of France. The plant, located in Nesle, has a capacity of 15,000 tons of insect protein.

The French insect start-up is also eyeing international expansion in the US by building a new plant in partnership with ADM in Decatur, Illinois. Innovafeed said it is preparing a global rollout, including relevant developments in Asia.

Nutrition Technologies

The Singaporean insect provider closed a \$20 million equity venture round with the objective to lead 'the next agricultural revolution' by increasing production and expanding into new markets, including Europe.

The company will expand its facility in Iskandar Puteri (Malaysia) and launch a new joint venture project.

It also wants to boost exports in key markets such as South Korea, Japan, Indonesia, Thailand, Vietnam, the Philippines and Chile.

Protenga

Singaporean biotech company Protenga raised \$2 million in venture funding to invest in new production facilities. The company expects to launch its next-generation Smart Insect Farms in Malaysia, where organic by-products are converted into high-value protein and organic fertilizer.

According to the company, which also achieved a \$2m Seed Round in 2020, the expansion is set to meet the rapidly increasing demand for insect-based ingredients for pet food in Southeast Asia.

The company also wants to launch its pet food brand YumGrubs by the end of the year.

Insecto

This South African company raised \$5.3 million in a seed funding round last April, which is set to provide a boost to growing their business of producing high-quality proteins, oils and fertilizers.

"We believe that insects will play an important role, becoming a widely available source of sustainable protein, and an important form of nutrition to help meet the food demands of the future", says Insecto co-founder and CEO Simon Hazell.

The new investment will also allow Insecto to expand its manufacturing capacity and expand its presence to other countries in Africa, Europe and the US.

Enorm Biofactory

Thanks to \$55.9 million in a funding round in January, Danish insect protein start-up Enorm Biofactory is set to open the first production plant of insects on a commercial scale in Scandinavia in Hedensted, Denmark.

The plant will be in operation in the second half of 2023 and produce a staggering 11,000 tons of insect protein meal per year.

Proof of concept was gained over the past 3 years, in which Enorm Biofactory built a pilot plant on the Danish Jutland peninsula. Here they demonstrated technologies and operational capacities to enable the farming of insects. Currently, the company produces 3 tons of insect meal per week.

Protix

Dutch insect-based producer Protix was founded in 2009. They produce natural and sustainable ingredients

Danish Enorm Biofactory is set to open the first insect production plant on a commercial scale in Scandinavia.

from insects, and farm larvae that are used in various feeds for pets and other animals.

Earlier this year they raised €50 million in a funding round that will allow the company to expand internationally. CEO Kees Aarts highlighted that the next growth phase is all about global expansion, building new facilities and increasing capacity.

Petgood

Founded in 2020 by Pernilla Westergren and Thomas Dalebring, Petgood offers a range of insect-based dog products with natural and high-quality insect protein, as well as vitamins, minerals and fatty acids from vegetables, fruit and superfoods.

This Swedish company earlier this year raised \$2.1 million in funding to expand their international presence, especially in Australia. As a result, they were able to partner with local insect farm Future Green Solutions in the Western part of Australia.

Divaks

Lithuanian food tech company Divaks raised €3 million in seed funding to develop high-quality, insect-derived ingredients for the food industry and pet food market.

The company is finalizing the launch of its own pilot manufacturing facility to produce yellow mealworm. This protein is described by CEO Kęstutis Lipnickas as being "exceptional" because it combines "the nutritional quality of beef with the sustainability credentials of many plant-based alternatives."

Divaks, which focuses on delivering insect-derived ingredient solutions for premium pet food producers, is now seeking to raise €50 million through its Series-A funding round by the second quarter of 2023. ◆



Edgar Maciel
PETS International Contributor

Insect-based protein – living up to expectations?

Insects have fast become a go-to ingredient as an alternative and sustainable source of protein in dry pet food. However, there are still questions to be answered regarding the true nutritional value of insect-based proteins.



As the world is facing pressing issues including climate change, global human population growth, and the limited availability of agricultural land, the search for more sustainable proteins continues unabated. Insects are such a source that could partly replace conventional ones.

Insects were recognized as a source of alternative protein – for humans, farm animals and for pets – almost a decade ago. Insects are a natural part of a carnivorous diet for both wolves and feral cats. However, the inclusion rate of insect biomass in the diet of such animals is reported to be negligible: contributing to merely 0.5-1% of the diet.

A question of taste?

For dogs and cats, palatability of insect meal seems to be a limiting factor for using this alternative source of protein. Although many companies offer pet food products with relatively high inclusion rates of insect meal, there is a lack of scientific data providing possible insights into whether different types of insects are tastier, healthier or easier to digest for pets in the final product.

The data that is available – for instance, that based on research conducted by Professor Anton Beynen in 2018 – suggests that dogs tend to prefer dry food containing black soldier fly larvae (BSFL) meal, over those containing yellow mealworm meal.

Different preferences

A study from the University of Berlin research group (Passlack & Zentek, 2018) illustrates that cats and

dogs can have different preferences when it comes to various insect species. It also mentions that higher inclusion rates may cause lower feed intake or food refusal. It is, therefore, essential to bear this in mind when formulating feed products.

According to this research also, for dogs, accepted inclusion rates are 10% for BSFL meal and 24% for banded crickets. For cats, the inclusion rate is up to 5% BSFL. Additionally, dogs show good acceptance of dry foods containing 20% BSFL meal while, interestingly, at a similar inclusion rate (22%), cats reduced their food intake.

The sustainable and nutrient-efficient alternative?

Insect farming is more sustainable as it requires less space and resources in terms of water or feed. Insects are known to have lower conversion rates than any other species, which makes them efficient at a level that is not comparable to any other higher species.

It has been found that the amino acid profile from insect meal is readily available when fed to farm animal species. But at the same time, this profile can be variable and depends on insect species and their life stage.

For instance, BSFL meal has lower amino acid digestibility for sulfur-containing amino acids, methionine and cystine. These amino acids are limiting for cats and dogs. Since BSFL is one of the most used insect meals in pet food, pet food manufacturers should be careful to balance out the amino acid profile in the final product.

Also, threonine and leucine which are found in certain insect species are reported as being limiting amino acids for cats and dogs.

What about digestibility?

Results from available scientific literature report variable protein digestibility rates: depending on the species consuming the insect-based food product, as well as the life stage and species of insects used.

Dogs appear to have high *in vitro* digestibility rates, ranging from 76.4 to 93.3% for house crickets, yellow mealworms, BSFL and BSFL pupae. This is based on research conducted by the Dutch Wageningen University research group (Bosch et al., 2016). Reported values are higher than *in vivo*, where apparent fecal-N digestibility of foods containing BSFL in dogs ranged from 73.2 to 87.2%. Values were affected by inclusion rate and processing, where higher inclusion rates decreased digestibility.

Digestibility was highest at a 30% crude protein level coming from dried BSFL meal, as reported by Dr. Ryan Yamka in 2019. This implies that in vivo digestibility trials should be the golden standard, seeing as processing, drying methods and mineral content in the exoskeleton can have a negative impact on digestibility.

Fat and functional

The fat content of insects varies between 10 and 70% on a dry matter basis and, similarly to other nutrients in insects, seems to be dependent on the insect species, its life stage, diet, and microclimate conditions of rearing.

It has been noted that commercially reared insects have a higher fat content. In case of a diet fed to insects that is rich in omega-6 fatty acids, their fatty acid profile can be such, that these high levels in turn lead to decreased levels of linolenic acid.

Interestingly, BSFL has an unusual fatty acid profile rich in lauric acid, irrespective of the diet. Lauric acid has antibacterial, antiviral and anti-fungal properties that could potentially act as a nutraceutical. Additionally, if insects' diets are enriched with omega-3 fatty acids, insects would serve as the enriched product themselves. This poses an interesting approach to the development of functional foods for pets.

Some companies are waiting for a stronger body of scientific evidence before including insects in pet food.

Variable content

Similarly, the mineral and vitamin content of insects seems to be quite variable and widely influenced by their diet. Diet poses a great resource for final product enrichment. At the same time, it is a risk factor: diets need to be reformulated if the insect mineral composition is different in another batch, coming from another supplier where rearing conditions are different.

Generally, insects contain low levels of calcium. However, thanks to their mineralized exoskeleton which contains high levels of calcium and other minerals, BSFL stand out from other insect species, providing a well-balanced Ca to P ratio. A proportional relation exists in BSFL between calcium and phosphorus, in the form of phosphate in-body fluids and bone.

Fiber

One more important nutrient in insects is fiber. Such fiber is markedly different from that originating from plants. The components in insect fiber fractions include sclerotized proteins and proteins, minerals, and other nutrients that are bound to chitin to make a firm exoskeleton for insect protection.

The cuticle properties vary between insect species, depending on the required functionalities for the insect. Current research suggests that the undigested fraction of insects does not significantly affect the intestinal microbiome and acts more like insoluble fiber, such as cellulose. But additional research should provide more information on insect fiber and its properties.

Allergy trigger or hypoallergenic?

Another interesting fact about insect-based food for dogs and cats is that it is often marketed as being 'hypoallergenic'. However, so far, no studies have been published evaluating the effectiveness of insect-based hypoallergenic food in dogs or cats, where food allergy has been confirmed.

In fact, research has shown that insects can also be a trigger for food allergies.

Such an allergy related to the consumption of insects may be caused by a primary sensitization or a crossreaction with another allergen.

In a study by the University of Ljubljana (Bajuk et al., 2021), results imply that dogs allergic to mites may also show cross-reactivity with mealworm proteins. For this reason, in some cases, it could be inadvisable to use yellow mealworm larvae as an alternative protein source.

Other hazards associated with the contamination of insects can be the result of flawed processing procedures related to anthropogenic factors during breeding, packaging, cooking or feeding. Contaminants include the presence of bacteria, mold fungi, mycotoxins and heavy metals, among others. Importantly also, as an undesirable consequence of insects' readily incorporating nutrients from their diet into their body composition, we must be aware of heavy metal accumulation such as copper, cadmium and lead.

Quality control is key

All-in-all, well-established quality control is paramount where insect meal and insect byproducts are concerned. They should undergo sufficient safety and efficacy testing.

It's why, although numerous pet food companies are including insects as an exciting new addition to their pet food product portfolio, some are still waiting for a stronger body of scientific evidence before making the decision in the insect's direction.

As with everything in pet nutrition, things are not all good or all bad. The middle road covers most uses. And that is certainly the case with insects: they offer many benefits, with many variables and come with some serious limitations.

To include insects successfully in a pet diet, we must identify all limitations and enhance the positive aspects of this exciting protein source. The good news is that the Animal Nutrition Group at Wageningen University has markedly improved our knowledge of insects in pet nutrition – and new research groups are joining in to address insect and insect-based pet food topics. •



Dr. Diana Brozić Assistant professor at the University of Zagreb, Croatia





For the last decade, Ÿnsect, the world leader in the production of insect protein, has been researching and breeding mealworms (*Tenebrio molitor* and *Alphitobius diaperinus*) in vertical farms in France, the Netherlands and the US. The aim is to provide a new food source for pets while preserving natural resources, catering specifically to pet owners in search of climate-conscious alternatives.

Premium-value insect protein

Mealworms are rich in all essential amino acids (except for methionine and taurine) while also naturally supplying significant amounts of fats, vitamins, natural fibers like chitin, and minerals. This makes them the perfect base ingredient for a balanced, complete and high-protein dietary formulation for cats or dogs.

Valorizing every part of the insect through its circular model, Ÿnsect has developed a range of high-quality, natural, digestible and healthy ingredients such as protein concentrates, protein hydrolysates and protein oils for both dry and wet petfood applications. Using mealworms guarantees a premium nutritional quality with the highest protein content (71%) on the market. Ÿnsect's appetizing odorless and brown ingredients with exceptional nutritional properties are specifically tailored for the pet food industry.

Stability and safety

Based on its decades of research into the physiological and nutritional requirements of the mealworm, Ÿnsect focuses on the wellbeing of the insects in addition to the quality of the product line. A lot of work has gone into formulating and developing the ideal sustainable diet so mealworms can grow in the fastest, healthiest and most optimal way.

Dry, compartmentalized, controlled and stackable nurseries, tailored to the insects' needs, also help maintain consistent, hygienic and disease-free conditions so that production is largely unaffected by external factors, thus guaranteeing system stability and product quality.

Meanwhile, precise monitoring of the mealworms' environment ensures product safety, consistency and traceability over time. This is a real asset in terms of R&D activities, quality control and regulatory requirements.

Mealworm proteins: the best of both worlds

Compared to traditional animal protein sources, mealworms can be farmed commercially using less water, land and energy, while producing high-quality feed with fewer greenhouse gas emissions. As such, diets that include a large percentage of protein from mealworms offer the optimum solution to reduce environmental impact while providing high nutritional benefits. Mealworm protein-based products combine the best of both worlds – not only performance and health, but also sustainability. •

Ÿnsect SAS

yanh.sales@ynsect.com ynsect.com



Founded only 5 years ago, UK-based Yora Pet Foods could be considered to be a start-up. However, market interest in insect protein-based pet food products has been growing so exponentially in recent years – and so many new companies are entering the market – that nowadays Yora is considered one of the most experienced players in the segment.

Yora's managing partner, Glenn Rankin says that when the company attended pet industry trade shows a few years ago, there would usually only be them and some other small insect brands. "In the space of 1 or 2 years, there are now considerably more manufacturers of insect pet food trying to get pet parents to buy their products," he adds. According to Rankin, the company sold 700 tons of insect meal in 2021.

More demand, more choice

The demand for dog and cat food products containing insect protein is increasing. This demand is driven by concerns over the environment and sustainability, such as the amount of land and water resources required to produce meat.

The Pet Food Institute (PFI) believes that consumers have become more willing to buy products made with insect protein. Companies are catering to increased demand: expanding their product range by offering new innovative products, including dog and cat food

and treats. "Consumer acceptance has reached a tipping point, where more than 50% of pet parents would consider trying insect-containing pet food. There is a 10 to 15% growth in demand every year," PFI president Dana Brooks points out.

"We are seeing new companies formed around insects in pet food, as well as well-established pet food companies launching new products," adds Brooks, who believes the growth in demand will continue.

Fair competition?

"Large pet food companies are investing heavily in product development using insects. So, we expect the number of insect-based pet food products launched to grow substantially in the coming months," says Brooks.

Already, big companies like Mars and Purina have launched insect pet food products, but this does not seem to off-put smaller players. For Bjarne Gravesen Jensen, whose company Globe Buddy launched its Insect Crunch dog snack this summer, it goes without saying that everybody is eager to get a foothold in the insect segment.

Jensen remarks: "They have probably seen what we have been convinced about for some years already. If you don't hop on this trend's bandwagon now, you

could well be too late." According to Jensen, sales figures for their treats are on the rise and they are in the process of developing a new insect protein-based dry dog food.

Sofia Bonilla, founder of Canadian-based Hope Pet Food, feels "really happy" that there is more competition. Bonilla: "It really validates that what we're doing not only makes sense to us, but to other companies, larger companies."

Educational path

In fact, industry insiders like Bonilla believe that big market players can take on a vital role in educating consumers about the benefits of insect protein. "For most people, it's intuitive knowledge that insects are nutritious and as such an environmentally friendly pet food option. But they don't really know why. Having other companies also promote and educate pet parents about the benefits of insect-based protein will help grow the market," Bonilla explains.

"For some consumers, the 'yech' factor may make them reluctant to consider insect protein-based products.

Yet they see their dog eating bugs at home. Once they learn about the nutritional benefits, as well as the environmental benefits, then they are on board."

More segmentation

Start-up Yora's products are already available in 168 pet stores across the UK. The company expects most big brands to introduce products containing insect protein in the near future. According to Rankin, black soldier fly larvae will be the go-to source, rather than mealworms or crickets.

The key to success, he says, will be for brands to clearly position themselves, as the marketplace becomes more segmented. At the same time, pet parents need to be informed on insect protein and its nutritional benefits. "What we're trying to do is to elevate this lowly and unusual ingredient to a superfood status," Rankin concludes. •



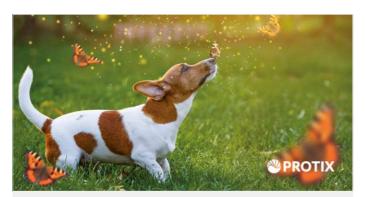
Elizabeth Thompson PETS International Contributor





ner associated no Aigher Level a score of 98,38% stration No.: 00313/0

til: 13 Novemb



Protix THE NETHERLANDS Partner in insect ingredients

Replacing proteins and fats with more sustainable alternatives, while maintaining palatability and performance, is a major challenge. The answer lies in insect ingredients. Insects are a natural and hypoallergenic source of nutrients for pets.

Protix is the world's only industrial-scale supplier of insect ingredients. The company harnesses the black soldier fly's amazing ability to upcycle food waste into high-quality ingredients that are good for pets and good for the planet.

Protix B.V. info@protix.eu protix.eu



Golden Eagle FINLAND Holistic Chicken

Golden Eagle® Holistic Health Chicken Formula is designed for active adult dogs and can be fed to small and medium breed puppies from 8 weeks onwards.

It is a multiprotein source diet, meaning there are several animal proteins in the formula.

Golden Eagle Petfoods Co Ltd / Shetland Oy

info@goldeneaglepetfoods.com goldeneaglepetfoods.com



Leiber GmbH GERMANY MOS. Glucan. Gut Health

Brewers' yeast cell walls are indigestible carbohydrates, which are naturally high in ß-glucans and Mannanoligosaccharides and clearly demonstrate a prebiotic effect. They increase the intestinal barrier as the first defensive line against potential pathogens and have high adsorption capacities against mycotoxins. Biolex® MB40 actively supports the immune system, increases ROS production and inhibits interleukins, which are advantageous in chronic inflammatory processes.

Biolex MB40 – for intestinal health and protection!

Leiber GmbH

info@leibergmbh.de leibergmbh.de/en





Yantai China Pet Foods CHINA Tasty meat paste for dogs and cats

- Added vitamins
- ◆ Lickable treats
- ◆ Healthy digestion

Yantai China Pet Foods Co., Ltd

angie@wanpy.com.cn wanpy.com.cn



What are the hidden powers of chicory prebiotics and why are they key to a healthy diet?

There is a symbiotic relationship between a pet and its microbiome: the population of micro-organisms living in the large intestinal tract.

Pets' intestines

Prebiotics, such as Orafti® Inulin and Oligofructose, are soluble fibers that resist digestion hydrolysis by mammalian enzymes. They reach the intestine of the cat or dog, where prebiotics nourish the pet's natural microbiota and thereby improve its composition.

In essence, inulin and oligofructose are fermentable carbohydrates that trigger specific changes both in the composition and activity of the good microbiota residing in pets' intestines, like Bifidobacterium spp., by selectively stimulating their growth and proliferation.

Additionally, their fermentation by select microbiota results in the production of short-chain fatty acids (SCFA). The main SCFA produced are acetate, propionate and butyrate. These fatty acids decrease the lumen pH, and serve as an energy source for the epithelial cells in the large intestine, with butyrate being the primary source.

Absorption of minerals supports bone health

The absorption of minerals is essential to the animal's growth and bone strength. By reducing the luminal pH and nurturing intestinal mucosa with butyrate, gut absorbency is boosted. Oligofructose increases mineral uptake in dogs, including calcium, and therefore supports bone health.

Reduction in energy intake and body weight management

Overweight and obesity are common in companion animals. More than 50% of dogs kept as pets in the US are classified as overweight or obese (source: Association for Pet Obesity Prevention). Initial studies show that including chicory root fibers can curb appetite in both dogs and cats. It also helps improve satiety and hence decreases voluntary food intake. In doing so, chicory root fibers help to maintain the healthy body condition of a pet.

Blood glucose management and second meal effect

Chicory Inulin and Oligofructose are non-digestible carbohydrates and dietary fibers. They do not trigger a rise in postprandial blood glucose or insulin concentrations. This makes them suitable for diabetic pets. What's more, studies in dogs have shown that feeding chicory prebiotics can reduce blood sugar response after a meal. This benefit can be extended to a subsequent meal taken hours later: the so-called second meal effect.

Dietary comfort and feces odor reduction

Also, by specifically feeding and stimulating the growth of beneficial saccharolytic bacteria, like Bifidobacteria – at the expense of other proteolytic bacteria – chicory prebiotics extend saccharolytic fermentation and reduce proteolytic metabolism. This is believed to help reduce undesirable odorous feces.



Maygane Ronsmans Product Manager Animal Nutrition maygane.ronsmans@beneo.com beneo.com



Raw food toppers often serve as a gateway for familiarizing consumers with raw pet food. They can also help make raw pet food products accessible and affordable to a wider range of pet parents.

Convenient and functional toppers

Texas pet food manufacturer Primal Pet Group introduced the raw toppers concept to their customers as early as 2012. They revised the serving suggestions on their freeze-dried nuggets for pet parents not only to use the nuggets as a complete meal, but to add it as an 'extra' to another pet food item.

After the success of this novel product, they began to introduce more toppers to their portfolio in 2014. Nowadays, they offer a variety of meat-based toppers alongside milks, broths and other options. Over time, the company has come to focus on toppers that are both convenient and add functional ingredients – including butternut squash and turmeric – to a pet's diet.

"Interest in the raw topper category continues to grow," says Emma Kumbier, veterinary outreach coordinator at Primal Pet Group. "We know that pet parents often consider the cost and convenience of a product before making a purchase. Toppers have proven to be a strong entry point for new consumers in our category, because they come at an accessible price and are easy to incorporate into a pet's diet."

Pathogens – danger of infection

Despite the popularity of these products with consumers, the U.S. Food and Drug Administration (FDA) continues to warn that pet parents who feed raw pet food products "may have a higher risk of getting infected with salmonella and listeria monocytogenes".

This conclusion was reached after an analysis by the agency determined that several raw pet food products contained these bacteria. However, the bacteria were not detected in any of the dry dog food products sampled by the agency, and only in a single dry cat food sample.

Making raw pet food safe

Primal Pet Group uses a test-and-hold protocol, with a third-party laboratory, to confirm that all finished products are free of pathogenic bacteria before shipping. But more options to ensure the safety of raw pet food products are emerging, including the use of bacteriophages. Research has shown that these can reduce the number of harmful bacteria in raw pet food and pet food ingredients.

Bacteriophage producer Intralytix originally intended to use their products for treating human diseases. But they shifted their focus to food products, eventually expanding into pet food.

Raw toppers serve as a gateway to familiarize pet parents with the raw food category.

Their initial forays into using phages – viruses that solely kill and selectively target bacteria – to decontaminate pet food focused on dry kibbles. But raw products proved a more natural fit, because the heat involved in cooking and drying kibble products also kills beneficial bacteriophages, as well as the harmful bacteria.

Bacteriophages – the safe way to reduce contamination

In raw products, phages can achieve a 60-90% reduction in salmonella and other bacteria. Such results are similar to those achieved by heating and cooking dry food. Key is that the food product is completely coated with a liquid containing the phages. This coating is acquired using a spraying process.

Added benefits are that phages have no effect on the taste or smell of the food product. What's more, they are non-GMO, biodegradable and environmentally friendly; attributes buyers of raw pet food products are likely to value. There is also no labeling requirement because these organisms are legally regarded as a processing aid.

Ongoing research into the benefits of phages

The phages do have some drawbacks: they aren't quite as effective at decontamination as some chemicals, and specific phages can only kill specific kinds of bacteria.

But overall, it is believed the phages could have considerable potential in the raw pet food sector.

According to Alexander Sulakvelidze, president and CEO at Intralytix, phages "reduce the risk of recall, and also have a beneficial, positive effect on human health".

"It will still require some time for people to explore the full benefits and options for using phages. More research is needed, but once a sufficient body of data is obtained, I think this can help improve the safety and reputation of raw pet food," Sulakvelidze concludes.



Emma Penrod
PETS International Contributor



International expansion in 2023?

Put your company in front of buyers and business partners with **PETS International** and **GlobalPETS**.



Advertising with us can help you:

- Increase brand recognition through reach and repetition
- Position your company as an industry leader
- Tell your company's story via content marketing
- Generate leads for your sales team

Download the new Media Kit now for all the options:



globalpetindustry.com/mediakit



For some time already, pet food trends have mimicked human food trends. Now, slow-cooked pet food has been gaining popularity among health-conscious pet owners. Natural ingredients – and sometimes wholefoods – are cooked at a controlled low temperature to ensure nutrients are kept at their best.

Proven health benefits for pets

Slow, or gently, cooked pet food is widely believed to be beneficial for pets with a sensitive digestive system. And because recipes typically include certain protein sources, vegetables and fruit, slow-cooked usually equals a better diet.

Studies published in recent years support this view. In 2018, researchers at the University of Illinois put 8 dogs on different diets for 28 days. They found that lightly cooked and raw diets were 'highly palatable, highly digestible, reduced blood triglycerides, maintained fecal quality and serum chemistry, and modified the fecal microbial community of healthy adult dogs'.

Compared to an extruded diet, these diets had 'greater nutrient digestibility, resulted in reduced blood triglyceride concentrations, and shifted fecal microbiota populations and metabolite concentrations', the study concluded.

Best ingredients for best pet health

Of the gently cooked pet food option, it appears that a wholefood diet might be healthier. A 2014 study suggests that dogs' blood profiles improved after switching from a commercial kibble diet to a lightly cooked wholefood one.

For pets with a particularly sensitive digestive system, a 2020 study found that formulas with human-grade food have over 85% digestibility and can provide a high level of energy to pets. However, such gently cooked formulas should be stored, handled, processed and transported according to the same practices and guidelines for human food.

Although gently cooked pet food is manufactured at a too-low temperature to kill bacteria, it has not yet been subject to the level of criticism that raw food has.

Growth potential

Pet food manufacturers are confident in the further growth potential of gently cooked pet food, with some industry insiders describing the category as 'extremely hot'.

In fact, numerous pet food companies have recently added gently cooked pet food to their product assortment. A case in point is Austin-based The Conscious Pet which this year launched its first gently cooked dog food, containing upcycled human-grade ingredients.

Notably also, KatKin, a fresh cat food start-up from London, recently raised \$22 million in a Series-A funding, to expand its manufacturing capacity, and boost its research and development and marketing activities. •



Chermaine Lee
PETS International Contributor



Over the past decade, numerous highly publicized recalls of pet food have raised concerns among pet owners regarding extruded and canned pet foods. In fact, many owners are looking for alternative feeding solutions for cats and dogs. Biologically appropriate raw food (BARF) appears to be among the favorite alternatives that pet parents are turning to.

Digestibility

Raw pet food – BARF – has become increasingly popular among pet owners trying to feed their pets a natural and healthy diet. Promoted health claims include improved vitality, digestive tract health, and a better functioning immune system. Nevertheless, there is a substantial lack of scientific proof to back such claims.

Raw meat diets have a higher apparent macronutrient digestibility compared to extruded diets. This may increase the bioavailability of nutrients. Nevertheless, no difference in digestibility has been noted when compared to short thermal processing (being household cooking).

Misleading claims?

The often-used claim 'human grade' for BARF diets is misleading. For starters, EU regulations regarding pet food are quite clear on this point: pet food ingredients are regarded as Category 3 by-products of animal origin. As such, they fall under a specific set

of regulations which inhibits them from being called 'human grade'.

Category 3 materials include parts of animals that have been passed fit, but which are not intended for human consumption. However, pet-food regulations differ from one part of the world to another, and may not be as strict elsewhere as they are in Europe.

Keeping tabs on pathogens

Many pet food manufacturers use high-pressure pasteurization (HPP) to control pathogens in BARF. However, it has been proven that this process is not bulletproof.

Certain bacterial strains are pressure-resistant and may recover after HPP in the food matrix during certain storage conditions. Therefore, commercial HPP applications for raw meat should be performed for several minutes at a high-pressure range, in order to assure microbiological safety. However, such longer processing can be quite costly and can ultimately alter meat texture and appearance.

Not meeting the standards

Concerns have been raised by veterinary medical associations regarding BARF diets. Many outbreaks of salmonellosis, yersiniosis and brucellosis in dogs and cats are attributed to BARF diets.

Similarly, a study by Nüesch-Inderbinen (2019) pointed out the presence of antibiotic-resistant strains of pathogens in BARF diets. The study found that 72.5% of the samples researched did not meet pertinent microbiological standards. And antimicrobial resistant bacteria were found in 62.7% of the samples.

Health risks

In addition, research points out public health risks when it comes to feeding a raw diet to pets, dogs and cats living in households. Although the manufacturing of raw pet food is subject to strict microbiological hygiene criteria (the EU animal by-products regulations), there are still concerns over raw meat product safety. It is worth noting that some pets may shed pathogens with no clinical symptoms and may therefore act as carriers and pose zoonotic risks to their owners.

For this reason, it is essential, when feeding BARF diets, to have careful and sound handling and hygiene procedures to avoid the spread of zoonotic bacteria. It is advised that pets should not be fed BARF diets while they are being treated with antimicrobials, as this could increase the risk of resistant strains developing.

Pets in families with infants, elderly or immunocompromised individuals should take great care when sharing the household with a BARF-fed pet, as these groups are more susceptible to infections.

Home preparation of pet food

Despite vast choices of readily available commercial diets formulated to meet the nutritional requirements of different categories and ages of pets, some owners choose to prepare their pet's food at home.

And the trend appears to be on the rise. A OnePoll survey concludes that nearly two-thirds of pet owners (64%) cook a separate meal for their dog at least 3 times a week.

A properly formulated and cooked homemade diet can be of great benefit to pet health. This is especially the case for pets with nutritionally responsive diseases, for which there is no suitable commercial therapeutic diet. However, there is a significant risk of nutrient insufficiencies, excesses and imbalances in homemade diets when the recipe is from an untrusted and unreviewed source.

A raw diet can be unbalanced – and detrimental to pet health – if the recipe is not science-based.

What the scientists say

It has been proven by multiple studies that there is a high chance of a pet's diet ending up unbalanced if the recipe is not developed by a certified veterinary nutritionist. A 2019 survey by Morelli identified that only 8% of respondents relied on veterinarians for formulating their pet's BARF diet.

Examples of nutritional imbalances include taurine deficiency, vitamin A and D intoxication or deficiencies, and nutritional secondary hyperparathyroidism as a result of calcium deficiency. Hyperthyroidism can also occur when pets are fed raw laryngeal meat containing thyroid tissue.

Also, because of an unbalanced calcium-phosphorus ratio, or improper concentration, growth-related pathologies of the skeletal system can occur in fast-growing large and giant breed puppies.

Feeding animals suffering from kidney disease a BARF diet, which is high in protein and phosphorus, can lead to faster disease progression. Feeding bones can lead to suffocation, damage to the digestive tract, and constipation. Feeding a high-fat diet (as a BARF diet can often reach up to 40% of fat on a dry matter basis) can trigger pancreatitis in susceptible dogs and is not recommended in cases of gastritis or other chronic gastrointestinal pathologies (for instance: IBD, lymphangiectasia).

Balance is the key

Feeding pets a complete and balanced diet is the best way to meet their nutritional needs. Careful selection of ingredients, and processing optimization while maintaining a safe and pathogen-free product is key.

When all these factors are correctly balanced, it is possible to obtain excellent pet food that supports pet wellness, health and longevity. •



Dr. Diana Brozić Assistant professor at the University of Zagreb, Croatia





The popularization of cannabidiol-based products for human use is reflected in their applications for pets – to treat health issues such as inflammation, seizures, pain or anxiety. So there is more demand, and more products are now available on the market. But in the scientific community, there are still divided opinions about their use.

The potential is there

Data from the US cannabis research firm Brightfield Group shows that the CBD pet product market generated sales worth \$629 million last year, nearly 50% more than in 2020. And far from stopping, US sales are forecasted to reach \$1.1 billion by the end of 2026 due to ongoing discussions about the potential benefits for pets as well as the industry's product innovations.

Nielsen predicts that CBD pet products will represent 3-5% of all cannabidiol sales in the US by 2025.

7 out of 10 pet parents talked to a vet about CBD products last year.

Investors are interested too

A sign of the category's momentum is the interest among investors from around the world.

Minneapolis-based Kradle, for example, which manufactures products with hemp-derived CBD to reduce anxiety in animals, recently closed a \$4 million Series-A funding round. Pet wellness platform Antelope has acquired Diggin' Your Dog, a supplier of CBD supplements, health products and treats. And cannabinoid consumer product group Tenacious Labs took over Rover's Wellness, a pet care retailer from Tennessee specializing in THC-free CBD.

CBD effectiveness in pets (according to US pet owners)

Effective/very effective

14%

Somewhat effective

2% Slightly/not effective at all

Source: BrightfieldGroup.com; Pet CBD Consumer Insights (2021)

Pet owners aged 18-24 are the most eager to buy CBD products for their pets.

Human use leads to pet use

The conclusion of a survey conducted by Hodges Review, a commission assessing regulation and public policy relating to the UK's legal cannabis industry, is that 6% of pet owners were giving or have given CBD products to their pets. 'If this were applied across the population, it would suggest there is already widespread use of CBD by hundreds of thousands of UK pet owners,' reads the report, based on responses from 1,500 individuals across the UK.

Those aged 18-24 are the most eager to buy CBD products for their pets (11%). And nearly 1 out of 10 respondents between 25 and 44 support CBD for pets. 23% of the respondents used human CBD or cannabis oil for medical reasons.

Brightfield Group findings indicate a 'large overlap' between pet and human CBD use. More than 7 out of 10 pet parents in the US use CBD products themselves too, according to recent data.

Mostly for dogs

In 2021, most of the CBD-related pet products (77%) purchased in the US were for dog consumption. Just over 2 out of 10 say they give the products to cats.

CBD products are usually for similar use for pets as for humans. According to Brightfield's data from 2021, the main reasons given by owners for using these products for their pets are to help with anxiety and as a supplement for general well-being.

CBD proved effective to improve pet behavior for 84% of US owners. 14% found the product somewhat effective, and 2% found it slightly or not at all effective.

The power of veterinarians

Veterinarian advice seems to be an important decision factor for pet parents when purchasing CBD products for their pets. In the US in 2021, at least 70% of them talked to a vet about it – their concerns being about the safety of CBD, whether these products have been successful in treating pet conditions, and what dose to administer to the pet.



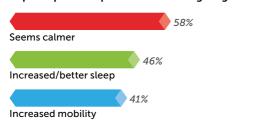
We help your business grow from puppy to adult

→ Just as we guide your pet from puppy to healthy adult dog, we accompany your business from idea to successful product!

> Let's create together! Contact us to launch your success



Top 3 impacts on pet behavior after giving CBD



Source: BrightfieldGroup.com; Pet CBD Consumer Insights (2021)

While there are restrictions in the US on how veterinarians can advise on CBD, 85% of pet CBD purchasers received an enthusiastic or somewhat enthusiastic response.

A 2019 study published in the Frontiers in Veterinary Science journal found that 84% of 1,194 veterinarians in the US disagreed or strongly disagreed with hemp and CBD products for animals remaining illegal at a federal level.

Lack of clear regulations

The absence of clear legislation is mainly due to the lack of scientific evidence on the actual benefits of CBD products for an animal's well-being.

The UK's Veterinary Medicines Directorate (VMD) has prohibited these products from being prescribed by a licensed veterinarian.

The U.S. Food and Drug Administration (FDA) has not yet approved the use of CBD, or any other hemp-containing products, as drugs or food and feed supplements for animals.

In Canada, CBD pet care products are regulated through the Canadian Veterinary Medical Association (CVMA) and they are not widely available at retailers – only at vets' practices. "They are technically only allowed to be sold through the veterinary channel, which makes the sales of CBD-specific products for pets very different in Canada to almost anywhere else in the world," says Pet Valu CEO Richard Maltsbarger.

The Science Advisory Committee on Health Products Containing Cannabis – an external advisory body for Health Canada – recently called on the government to support studies that will 'broadly look' at CBD's potential as a wellness aid while ensuring consumer safety. The committee also advised pet owners to consult a veterinarian prior to administering CBD to their pets. 'Labels should state that the product should only be used if a veterinarian has diagnosed the animal's condition and discussed risks and benefits with the owner,' according to their advice.

The American Veterinary Medical Association (AVMA) also asked US officials some time ago to 'engage' in further research of cannabinoids and their application for pets.

Retailers' views

Most CBD products for pets are sold online. According to Google, pet supplement manufacturer NaturVet is the top seller in the category on Amazon with monthly revenue of \$1 million. Their data also shows that the top 5 product sellers on the popular e-commerce platform are almost all chews. The increase in consumer demand, especially through e-commerce, is an opportunity for traditional retailers too.

For the offline channel, things are a bit more difficult though, due to restrictions on the sale of products containing cannabis.

German company Fressnapf is currently not selling CBD products in their shops and does not plan to do so in the "foreseeable future" due to the uncertain legal situation. "In order for us to be able to offer such products, there would first have to be a clear legal classification of CBD," says the company. The retailer is examining the possibilities for including CBD-related pet care products across their 1,700 stores by the end of 2023.

In the Nordics, demand for this type of product is still very small. But some big players like Musti, which operates in Sweden, Norway and Finland, are following market developments. "We are naturally looking into the trend, and how the market is developing, and will act according to customer need if we see a growing interest," says a spokesperson.



David Palacios Rubio Editorial Manager GlobalPETS



Administering CBD to pets is a hot topic that seems to divide the industry. As the trend toward holistic pet care grows worldwide, consumers are increasingly drawn to the purported benefits CBD brings. Meanwhile, veterinarians and regulators express safety concerns about its use in animals.

Different types of CBD

Although CBD has been hogging the headlines, the CBD market – for both humans and animals – has been largely built on what could be better described as 'CBD-rich hemp extracts'. Hemp is the same species as cannabis, but by definition it contains less than 0.3% (and 0.2% in the UK) of tetrahydrocannabinol (THC), the intoxicating cannabinoid. While historically hemp has been grown for its seeds and fiber, its high CBD content has meant hemp is the source of most consumer CBD products sold worldwide for animals and humans.

CBD oils, which until now have dominated the market, tend to be either *full spectrum* (meaning they contain most of the naturally occurring compounds found in hemp, such as minor cannabinoids and terpenes, as well as trace amounts of THC), *broad-spectrum* CBD oils (which as well as CBD retain a few of the other naturally molecules but are THC-free) or CBD *isolate* (essentially, purified CBD).

Free from any metals

Dr. Zac Pilossoph, a veterinary cannabis educational leader who takes a holistic approach to pet care, only recommends full-spectrum CBD-rich extracts that come with a certificate of analysis (COA) from a third-party lab.

This proves not only the cannabinoid content, but also that they are free from heavy metals, pesticides and mold.

"I do not recommend broad-spectrum, isolate or formulations made into treats as these go through further adulteration processes and distort the plant's potential to work in full function," he says. He is referring to the so-called 'entourage effect' whereby CBD is said to work best in conjunction with the other naturally occurring compounds found in hemp.

Instead, he recommends full-spectrum CBD products "for any disease rooted in inflammation or which may be idiopathic". These represent more than 90% of diseases that occur in animals. "There are no species for which I would avoid recommending a full-spectrum CBD-rich extract if the disease processes made sense, as every animal species – aside from arthropods – has an endocannabinoid system in some form."

Resistance among veterinarians and regulators

The CBD market for pets is expected to have a compound annual growth rate (CAGR) of 40.3% from 2020 to 2027 and to generate \$225 million in annual sales in the US alone by 2025. It is made up of a whole host of CBD-infused treats and novel delivery methods, such as pens to administer CBD gel to the underneath of an animal's ear for easy application.

In the US, veterinarians cannot prescribe CBD products to their animal patients as this would constitute the use of unapproved drugs under Federal Law.

SEE NEXT PAGE

However, in some states, such as California, Colorado and Michigan, veterinarians are permitted to discuss CBD with pet parents and make recommendations for products, while in Nevada veterinarians can actually administer hemp-based CBD products to animals.

Nevertheless, according to the Cannabis Veterinary Association, only 45% of veterinarians actually feel comfortable discussing CBD with their clients. "Some veterinary medical boards advise veterinarians to avoid discussing, recommending and selling products containing CBD until further guidance is provided by the U.S. Food and Drug Administration (FDA)," Pilossoph explains.

26,000 research papers on the topic

In fact, Pilossoph has himself faced criticism from within his profession for his pro-CBD professional stance. "I still get a lot of pushback about there being not enough research to back the health claims or recommendations made," he acknowledges. "This bias against CBD products is unfair because there are more than 26,000 research papers on cannabis, and veterinarians use translational medicine all the time with numerous other drugs and supplements. If anything, it is the manufacturers/formulators we should be fearing are creating untrustworthy products, not the plant itself."

In other parts of the world, such as the European Union, authorities are also struggling to find a joined-up approach to regulating CBD for pets. In the UK, the rules are fairly clear: CBD requires a UK veterinary marketing authorization in order to be sold and supplied. With no products currently approved, any companies marketing CBD products for animal use are doing so illegally. Furthermore, only veterinarians are allowed to administer CBD to an animal, meaning the hundreds of thousands of Brits giving CBD to their pets are breaking the law. CBD products currently are only close to being approved as animal medicines in Switzerland and a handful of Latin American countries such as Colombia and Uruquay.

Changing paradigm

Is this paradigm going to change anytime soon? Heidi Whitman, Global Strategy Director at global cannabis business Avida Global, believes that education – both for veterinarians and regulators – is key to bringing

about change. "Veterinary Science curriculums teach cannabis only in toxicology," she says. "There is not a course on the endocannabinoid system, which is the physiological system targeted by compounds in cannabis. But we teach the endocrine system, nervous system, etc. This is the first step to seeing change: educating the students, who become educated practicing medical professionals."

Whitman is keen to point out that there is clinical data and ongoing research proving the safety and efficacy of the use of cannabis in medicine. She refers to a clutch of studies showing promising results for CBD in treating osteoarthritis and epilepsy in dogs: "This cannot be ignored much longer. The adjustments in regulations will come next, country by country. I hope that the awareness, understanding and legitimacy of the data will indeed allow plant-based therapies to enter prescribing cascades, legally."

So it may be a while yet before veterinarians can prescribe an approved CBD-based drug. However, the horse has well and truly bolted for the use of CBD by pet parents and their companion animals, and the consumer market will no doubt continue to grow exponentially.

What is CBD?

CBD (cannabidiol) is a naturally occurring compound called a cannabinoid found in the *Cannabis sativa* plant. Discovered in 1940 by Roger Adams, its lack of any intoxicating effect meant that for many years CBD was assumed to be inactive. However, studies suggest that CBD, through its multiple mechanisms of action, is anti-inflammatory, anxiolytic, can control seizure activity, and even shows potential for reducing tumors. CBD is considered generally safe to consume by humans and animals. However, mild side effects can include sleepiness, diarrhea and, in higher doses, some cases of liver toxicity.



Mary Biles Medical cannabis journalist

Diving into the applications of hemp and cannabis in pets

These versatile plants, which have been used as medicine for thousands of years, are now seen as a useful opportunity to treat serious health conditions in animals.

Since the discovery of the endocannabinoid system (ECS), a vast neurotransmitter system in all mammals, the health benefits of hemp and cannabis are becoming increasingly clear.

The underlying nutritional value

From a nutritional perspective, hemp seed on its own is a great source of omega-3 essential fatty acids, antioxidants, phospholipids, protein, vitamins and minerals, and dietary fiber. Combining hemp seed with other parts of the plant (leaves and flowers) provides other synergistic components, such as phytocannabinoids, terpenes and flavonoids. These chemicals interact with the ECS and support its goal of achieving homeostasis – or balance – in the body.

Research studies in humans and laboratory animals have already shown hemp to be beneficial for a variety of conditions. These unique components and the way they interact with the ECS make hemp an unparalleled supplement for supporting health and wellness.

Psychoactive versus intoxicating

Cannabidiol (CBD) and delta-9-tetrahydrocannabinol (THC) are the best-known cannabinoids.

THC is both psychoactive and intoxicating, and animals are extremely sensitive to its effects. THC-rich hemp cultivars can be helpful to palliate pain or cancer in pets but should only be used under the supervision of a knowledgeable veterinarian.

While CBD is psychoactive, it is not intoxicating. Due to this effect, it can be used safely in pets for numerous conditions, including chronic pain, arthritis, seizures, anxiety, cognitive dysfunction, dermatologic issues and cancer. In addition to the many anecdotal reports, numerous companion and production animal studies released in the past few years support the benefits of CBD and other cannabinoids.

Miracles do not exist?

The use of CBD-rich hemp has been nothing short of a miracle in some pets. However, the knowledge of how cannabinoids interact with the body is still incomplete. Although they are quite safe, there can be side effects such as lethargy, vomiting and changes in stool. Dosing is experimental and is based on both the individual and the reason for therapy.

Numerous products exist and are heavily marketed to pet owners, but these products are not regulated. Moreover, quality control is left to the manufacturer. Many hemp products have been found to be contaminated with THC, heavy metals or pesticides, and the label claims often do not match the product ingredients. Therefore, hemp products should be third-party tested and have a Certificate of Analysis available. •



Katherine Kramer
Former director of the Canadian Association of
Veterinary Cannabinoid Medicine



DOOG – Dog Owners Outdoor Gear AUSTRALIA Walk the dog in style

DOOG's stylish collection of dog walking and training gear is made from perforated, lightweight neoprene and available in a sophisticated range of colors θ styles designed to match your activewear and casual wardrobe.

The Neosport Dog Walking hip belt can be worn around your hips or across your body. Sling it on and enjoy your dog walk in style and comfort. Now available to order in Europe.

DOOG - Dog Owners Outdoor Gear

contact.directopet@gmail.com doog.com.au



Lex&Max the Netherlands Orthopedic pillow XXL

The Lex and Max dog cushion 'Box bed Marseille' is a tough and sturdy cushion and, above all, very large! Almost every dog can relax on this pillow without falling off.

- Orthopedic filling
- ◆ Available in sizes 120x120cm and 140x120cm
- Cover with zipper

The Lex&Max range includes more than 400 orthopedic products.

Lex&Max B.V.

info@lexenmax.nl lexenmax.nl





Vet Planet POLAND Comprehensive pet support

Caring for a dog or cat means not only taking care of its nice appearance, but also regularly monitoring the pet's health and providing it with optimal nutrition in accordance with its needs.

A wide range of specialized products from Vet Expert – supplements, nutrition, diagnostic tests and cosmetics – ensures that you provide the best care for your four-legged friend.

Vet Planet Sp. z o.o.

vetexpert.world



Farm Company ITALY Thindown technology for pets

Farm Company presents the first pet apparel collection with Thindown, the best thermal insulation for pets.
The innovative and patented technology of the Thindown fabric is used to create waterproof apparel with a perfect fit and classic design. World's first down fabric is 100% made in Italy, sustainable, natural, breathable, warm, extra light, RDS and Oeko-Tex Certified.

Available in 6 sizes and 5 different color versions. A display kit and special high-class packaging are available for retailers.

Farm Company Srl

info@farmcompany.it farmcompany.it



Pet parents are looking for products that have similar features to their own outdoor gear – namely performance, quality and technology.

Thanks to both limited indoor entertainment options and more time spent at home, the pandemic presented an opportune time for many to acquire a pet and embrace the outdoors.

Changing lifestyle habits

According to the US Outdoor Industry Association, the number of participants in outdoor activities increased by 2.2% in 2021 to 164.2 million. This means that more than half (54%) of Americans participated in at least one outdoor activity last year.

"The increased demand for active and performance gear for pets aligns with the changing lifestyle habits of pet owners over the past few years," says Krystn Janisse from Canada-based Homes Alive Pets. The company has seen a sales increase of 149% in the active pet category since 2019.

High-tech performance gear

Dogs in particular are well suited for outdoor activities like camping and hiking. According to Janisse, this creates a "greater need" for better quality and functionality in active gear for pets.

Performance dog gear manufacturer Ruffwear released several collections in 2022 in direct response to the demand for quality technology and performance design in dog products.

The Trailhead and Innovative Insulation collections feature performance jackets that can withstand cold weather conditions while still allowing dogs the full range of motion to engage in winter sports.

The items include similar components to human performance gear, such as a durable water repellent (DWR) finish, insulation and windproof materials to keep the cold out and retain heat. Additionally, pet owners are seeking products that make getting outdoors with their pets safer and easier, along with add-ons like pockets for storage.

Matching styles

Many want pet apparel that matches their own favorite outdoor clothing brands. According to Janisse, products "need to look good and be on trend with current fashion trends to overcome price point barriers".

"Customers want their pet's image to reflect the type of lifestyle they live more and more," comments Kim McCohan, Chief Happiness Officer at Bend Pet Express. "We are seeing repeat customers buying additional collars so their dogs can 'change outfits' throughout the week," he adds.

Proper fit

The accuracy of sizing options is an issue for many. The ability to try on apparel and accessories helps pet owners have confidence that the product will perform as intended and fit their pet properly. "There's nothing worse than an ill-fitting backpack that has rubbed a dog raw, or a dog that has slipped out of a collar that's too big, or even apparel used for the wrong purpose but purchased because it looks pretty," points out McCohan. When retail staff is educated about the fit and use of a product, this builds trust in the store and brand, and reduces the chance of a purchase being returned.

Rising costs and supply chain challenges

The average price of these products ranges from \$40 to \$150. The rising costs associated with inflation are

There is a need for better quality and functionality in active gear for pets.

likely to drive prices up, but it remains to be seen how this will affect the market. "The impact on pricing has been pretty minimal for this category so far. We expect to see some moderate price increases in 2023, but for now, most pet activewear and apparel pricing has remained steady," says Janisse.

Moreover, continued supply chain challenges, including materials sourcing, shipping and packaging, have slowed the flow of stock coming from overseas and led to some manufacturers being unable to ensure consistent availability of products. As a result of shipping delays, retailers have not been able to determine the growth capabilities of this segment, simply due to the fact that there has not been a lot of product to sell. •



Jen Sotolongo PETS International Contributor



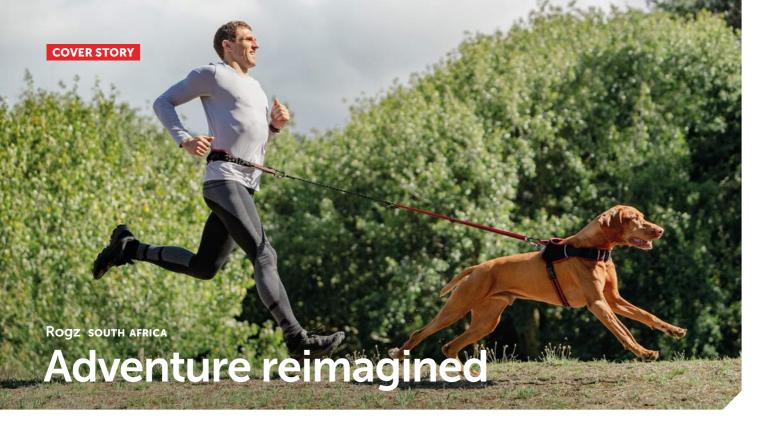
Pet industry news in your inbox?

In our twice-weekly newsletter, we help pet industry execs make sense of where the industry is going:

- Insights into trends, consumer behavior and expert opinion pieces
- ◆ The latest updates on acquisitions, investments and mergers
- Global and regional market analysis and reports



Subscribe now: www.globalpetindustry.com



Rogz first graced the cover of Pets International in 2005, celebrating 10 years of being in business. Fast-forward 17 years and it's time for another celebration.

For 27 years, Rogz has been guided by the vision to be the most enjoyed pet brand on planet Earth and beyond. Thanks to its footprint in 90 countries, people and pets across the globe can proudly, and safely, enjoy Rogz pet gear.

Continuous development

Continuous development in manufacturing techniques has ensured that this South African company has stayed true to its values, producing products that are functional, fun and relevant.

It could have been easy to become complacent after winning the World Branding Forum's *Brand of the Year* global award in 2021. Instead, Rogz continued brainstorming innovative ways to grow the brand. With adventure, fun and pushing boundaries at the forefront of new product development at Rogz, a new generation of adventure gear was born.

Introducing AirTech

The AirTech range is the ultimate in outdoor adventure gear for pets. It mimics

the natural beauty of nature through color, while encapsulating the raw edginess of adventure through design.

Rogz has an established reputation as a specialist manufacturer of collars, leads and harnesses, with a keen attention to detail. The AirTech range not only leans on this, but also propels it to another level.

Innovation from the ocean

The AirTech range was born through radical concepts inspired by kite surfing and other extreme sports that the company's co-founders actively engage in. This was innovatively redeveloped for the pet world in a first for the industry, which has led to Rogz filing multiple patents for this range.

In addition, the fabric used to manufacture AirTech products has been engineered by the company itself using soft, smooth, rounded edges and a diamond mesh that offers comfort. The manufacturing process is done in-house at the company's headquarters in Cape Town. Each product

has a distinct, unique Rogz DNA, setting it apart in the market.

Experience adventure

Ultimately, the AirTech range enhances the outdoor experience for both adventurer and their furry companion. Everything that has gone into creating the range was done to ensure that the products are ultralightweight, offer supreme comfort and are noise-free, while still providing a genuine sporty feeling with a visual appearance to match.

To the future... and beyond

The Rogz team is excited to watch how the world adopts the AirTech range. Meanwhile, the team continues to develop high-quality products, while focusing on sustainable practices. This has seen Rogz become the first African company to join the Pet Sustainability Coalition.

Rogz (Pty) Ltd. world@rogz.com rogz.com



A pet's skin reflects its health, yet nearly 30% of dogs suffer from skin allergies. Commonly referred to as allergic dermatitis, this skin disease can be persistent and recurrent throughout the pet's life unless veterinarians step in.

Most common skin disease

Allergic dermatitis is an umbrella term for skin irritations caused by food allergies, contact with certain substances, reactions to fleas, or atopic dermatitis. Almost half of all skin allergies in dogs are diagnosed as atopic dermatitis (AD), leaving many breeds predisposed to frequent skin infections, a dysfunctional skin barrier, and abnormal immune responses to pathogens that breach the skin.

Compared to allergies, AD is more complex because of genetic and environmental factors that combine and lead to an allergic response.

Some of the most popular dog breeds are predisposed to it, including the Boxer, Bulldog, Labrador Retriever, Pug, and West Highland White Terrier. In cats, pure breeds appear more at risk of developing atopy-like dermatitis. With the prevalence of AD continuing to grow, it is becoming apparent that preferential breeding isn't necessarily the main factor.

The role of hygiene

The pet's living environment also plays a crucial role. This is where the 'hygiene hypothesis' becomes relevant. This has been proven in humans, and studies suggest it is also applicable in cats and dogs.

In line with this theory, the more time a pet spends indoors, the less exposure it will have to beneficial bacteria found outdoors. The more processed food it eats, the less it will be exposed to bacteria and parasites in foraged diets. In combination, this limits the pet's exposure to naturally occurring bacteria in its environment, sensitizes its immune system, and predisposes it to this skin condition.

3 triggers of skin allergies

Attempting to pinpoint what triggers an allergic response can be a frustrating process. Generally, there are 3 main factors to consider:

Genetics. Some breeds are predisposed to developing allergies. For example, when an allergen comes into contact with the skin, it triggers an immune-mediated response that stimulates immunoglobulin E (IgE) antibody production (also known as Type 4 hypersensitivity). When serum samples from 30 different breeds were tested for elevated IgE, the Boxer was most reactive to allergens.

Environment. The allergens that pets are exposed to depend on their environment. A study in northern Italy found that nearly 40% of atopic dogs are reactive to indoor allergens (specifically dust mites), compared to only 8% testing positive for outdoor allergens.

Diet. When 297 dogs were tested for cutaneous adverse food reactions (CARFs), the most common food allergens were found to be beef (34%), dairy (17%) and

chicken (15%). The trend is similar in cats: beef (18%), fish (17%) and chicken (5%).

Maintaining the skin barrier

The skin barrier is both microbiological and physical. On the outer surface is the skin microbiome, representing the first line of defense. This microbiome consists of bacterial colonies that communicate with cells underneath the skin to initiate an immune response. In the case of AD, microbial diversity decreases as *Staphylococcus* begins to dominate and irritate the skin. The bacterial cell wall components and toxins released by this dysbiosis are enough to impair the skin barrier.

Next is the skin itself, which forms a physical barrier. While there is no definitive evidence suggesting that AD leads to a primary skin barrier impairment, inflammation and scratching during flare-ups cause secondary impairment. Once the integrity of the skin barrier is lost, any allergens that come into contact with the skin are more easily absorbed and trigger a dysregulated immune response. A recent study sampling peripheral blood found an increase in helper T lymphocytes (key immune mediators) in atopic dogs. In particular, disease severity was correlated with a subset of CD4+ CD25+ expressing regulatory T cells.

The importance of keratinocytes

Just beneath the skin's surface are the keratinocytes. These cells maintain skin integrity and replenish the epidermis, and it has recently been discovered that keratinocytes also coordinate the skin's immune response to invading allergens. In healthy animals, keratinocytes adhere tightly with neighboring cells and release cytokines that mediate inflammation. In the case of AD, these adhesions are lost due to increased interleukin 33 (IL-33) expression, leaving the skin porous and susceptible to allergens.

Additionally, Langerhans cells are located within the epidermis where they coordinate immune tolerance. These cells are not only responsible for mounting an immune response, but also for preventing excessive immune activation. Studies suggest that AD leads to decreased expression of IL-34, a cytokine involved in the maturation and proliferation of Langerhans cells. This combination of increased skin permeability and decreased immune surveillance leaves the skin vulnerable to allergens and AD.

Preferential breeding isn't necessarily the main factor in skin allergies.

Treating allergies

Treatment of AD should be aimed at avoiding broad-spectrum antibiotics and immunosuppressive steroids that only provide temporary relief. New research is focusing on using biologics to target cytokines that mediate AD. In particular, IL-31 has received much attention because of its role in pruritis. This cytokine is secreted from T helper 2 (Th2) cells and is capable of interacting with other immune cells, keratinocytes and nerve fibers.

While there has been some success in formulating a vaccine against IL-31, the primary approach has been to use a caninized monoclonal antibody designed to neutralize IL-31 and stop itching. The idea is that AD becomes much more manageable once the itching is under control. This treatment uses Lokivetmab (also known as Cytopoint), which is effective against allergic and atopic dermatitis. A recent study looking at 62 dogs with moderate to severe pruritus brought on by allergies (including AD) found that a single dose of Cytopoint resolved 94% of flare-ups by Day 7 and 100% by Day 56. Of these dogs, 34% were previously diagnosed with AD. Fortunately, IL-31 is also a promising target in cats.

Other treatment options include allergen-specific immunotherapy, but this takes time to desensitize the immune system and requires veterinarians to know which allergen is problematic. In most cases, more than one allergen is involved.

Growing knowledge

Skin allergies in pets are often lifelong conditions that need to be managed. While our knowledge of veterinary immunology continues to grow, it still lags behind human medicine. Fortunately, much of this information has been transferable to veterinary medicine, especially in the case of allergic dermatitis and treatment strategies. •



Ashkan Sadri Veterinary researcher vetabroad.org



Feeding smaller rations may seem like the easy solution to make overweight pets fitter, but it can result in life-threatening conditions.

The Association for Pet Obesity Prevention concludes that 59.5% of cats and 55.8% of dogs in the US are overweight or obese. Likewise, the University of Munich has found that more than half of all dogs and cats in Germany are overweight. The university even organizes special pet obesity consultations to support owners in achieving the ideal weight for their four-legged friends. Meanwhile, the UK charity PDSA reported that 78% of veterinary professionals say they have seen an increase in pet obesity in recent years. Obesity is now one of the top 5 welfare concerns among British pet owners.

Risk of smaller feed rations

As in humans, the first thing owners of overweight pets look at, is how they could improve their pet's diet. The idea of simply feeding less may seem plausible at first, but a closer look reveals significant problems.

Of course, a smaller feed ration leads to a lower calorie intake, but it also results in a lower supply of protein, vitamins, minerals, and other essential nutrients.

Example: an overweight cat

Let's take an overweight cat of 6 kg as an example. The animal has a daily protein requirement of \sim 24 g and the average wet food contains 10% crude protein. The feeding recommendation says to feed 240 g per day for medium-active cats (4% of the cat's body weight). This results in a protein intake of 24 g.

If the owner decides to help the cat lose weight by feeding it only two-thirds of the daily ration (160 g), the protein intake would be reduced to 16 g. This would result in a too low intake of protein and thus also of essential amino acids (along with many other nutrients). Cutting the ration so drastically can be fatal for cats since too rapid weight loss can result in life-threatening hepatic lipidosis. The recommended weight loss guideline for cats is 0.5-2% of their total body weight per week. For dogs, it is 1-2%.

Calorie requirement

Instead of reducing the feed ration, it makes more sense to determine the pet's calorie requirements

in order to find a diet that provides all the required nutrients without exceeding the intended number of calories. So how can this be calculated?

The pet's calorie requirement is based not only on the ideal weight, but also on other factors such as activity level, age, neuter status and individual metabolism. Therefore, ideally, a veterinarian specializing in nutrition should be consulted to advise on how to reduce the calorie content gradually, in line with the severity of the situation. At the same time, the veterinarian has the opportunity to examine the pet for underlying diseases, hormonal imbalances or pre-existing effects of the excess weight, to take account of them in the weight loss strategy.

Weight control diets are usually based on a highprotein, nutrient-rich and low-carb formula with a reasonable fat content to ensure sufficient intake of essential fatty acids. For dogs and cats, carbohydrates (including sugar) are just a source of energy and therefore not essential. In contrast, an increased crude fiber content can help to induce a feeling of satiety. However, too much fiber can also result in a reduced Obesity is now one of the top 5 welfare concerns among British pet owners.

nutrient intake, which is why amounts have to be balanced carefully.

Increasing the amount of exercise

Apart from the dietary approach and the check for underlying diseases, slowly increasing the pet's exercise level is crucial for healthy and long-term weight loss.

Meanwhile, as in humans, it is important to avoid subjecting an overweight body to too much physical stress. Great ways to carefully introduce more activity for dogs include dummy search games or swimming lessons, while throwing food kibbles stimulates a cat's hunting instincts. It is best to use part of the pet's daily ration of dietary food as treats and rewards.



Julia Klischies Pet nutritionist Petfood-expert.com



GLOBAL CUSTOMER SERVICE CALL 1-800-218-5607

AFB International Global Headquarters St. Charles, Missouri USA



PALATANTS

We develop and produce a full range of **liquid and dry palatability enhancers** proven to optimize pet enjoyment and consumption.



SERVICES

In addition to palatant expertise, AFB supports our customers with additional services. **Technical palatability trials, behavior trials and an in-house pilot plant** are just some of the benefits we offer our customers.









The increased level of care – combined with good nutrition – means that pets are living longer, making chronic diseases more likely. 'Chronic disease' is a catch-all term for any condition or illness that lasts for at least a year, but really it refers to diseases that are likely to last for the remainder of a pet's life. These include heart conditions, kidney failure, epilepsy, atopic dermatitis, inflammatory bowel disease (IBD), and hormonal conditions like Cushing's syndrome, hyperthyroidism and diabetes.

Prevalence of the pathology

In view of such a wide range of diseases, it perhaps isn't surprising that there is no clear picture of just how many dogs and cats are affected by chronic disease, nor which species is most affected.

In 2013, North Carolina State University identified kidney disease as probably the most common chronic disease in pets, affecting as many as 1 in 2 cats. Some other studies suggest that the prevalence of kidney disease is higher in cats than in dogs.

Early diagnosis

For many of these conditions, early diagnosis is key to ensuring the pet lives a long and happy life despite the chronic disease. Modern medicine has allowed these chronic diseases to be named and classified; whereas once every dog with a skin condition was dismissed as having 'mange', many cases are now in fact identified as atopic dermatitis (allergies). Regular check-ups are essential in order to spot developing problems before symptoms become apparent, but it is even more important to keep up with regular medication.

Medication

For almost all chronic diseases, medication needs to be given regularly to keep the animal stable. Whether it concerns a dog with arthritis or a cat with high blood pressure, maintaining the drugs at the right dose for the pet is imperative. This means that drug development – especially using novel formulations – is one of the most important areas in chronic disease science. Liquid hyperthyroid medication and once-a-month injectable arthritis treatments have made a huge difference to the health and welfare of pets in the UK, for example.

Novel treatments

Work to develop new medicines is ongoing. As science continues to advance the knowledge of chronic diseases in pets, novel treatments could be announced at any moment that make certain diseases a thing of the past. It is important to remember, though, that there's often a big difference between what is happening at the forefront of research and what is available as treatment.

Several studies need to confirm the same findings before drug and food development companies start working on providing a solution for pets in the real world. It is too soon to say whether choline will one day be prescribed to help feline obesity, for example. But based on the lessons learned from previous treatments for chronic disease, it is unlikely to be a magic bullet, even if it does one day become a recognized treatment option. It is more likely that, as with injections for canine atopy, it will become just one more weapon in the arsenal.

The role of telemedicine

No matter how brilliant the drug is, good medical control also requires regular monitoring, allowing doses to be tweaked as necessary to provide the best result.

Owners can use apps to log dose and response in order to monitor their pet's health if they have a chronic disease, and this can provide essential information for the vet. Teleconsults are also useful for monitoring chronic diseases without needing to see an in-person Drug development is one of the most important areas in chronic disease science.

vet, and they are likely to become increasingly commonplace in the future. This is a positive development, as repeated visits to the vet can be stressful and expensive, especially if travel to a referral-level specialist is necessary.

While chronic diseases are presenting more of a challenge than ever, advances in medicine mean that such diseases are no longer a life sentence and many pets can live long, happy lives without symptoms. •



Dr. Joanna Woodnutt Veterinarian, Royal College of Veterinary Surgeons (RCVS)





Join us for the networking

And meet 239 other pet industry executives







2023 marks the 24th edition of the GlobalPETS Forum. The event is a great place to get inspired by top experts on where the pet industry is going in the next few years, and to meet peers and new potential business partners.

What to expect?

The Forum spans 3 days, from 25 to 27 January, at the 5-star Hilton Berlin hotel.

Day 1. The Forum will kick off with an optional tour of pet retail stores across Berlin. An informal dinner in the evening gives you the opportunity to socialize with other attendees.

Day 2. From the morning until the evening, the program is jam-packed with high-quality presentations and networking moments. At the end of the day, buses will whisk you and the other attendees away to a surprise location for the renowned 'social evening'. A delicious walking dinner in a beautiful setting is the highlight of the event for many.

Day 3. On the last day, you'll get your final dose of inspiration from top speakers, followed by a networking lunch before returning home.

What's the topic?

Customers expect convenience and are becoming more impatient and demanding. As a result, traditional lines between buying channels are blurring. And, more importantly, customer loyalty is declining. How do we – as retailers or brands – position ourselves to attract the right consumers in this environment? And once we acquire a new customer, how do we turn them into lifelong fans?

The added difficulty is that customer profiles are also changing. Millennials and Gen Zers are becoming the largest group of pet owners. And they cherish different values, prefer different communication styles and have shown themselves to be less loyal to brands.

To provide inspiration on how to deal with these changes and challenges, the theme of this year's event is 'Lifelong customers in an omnimarket'. You'll hear directly from leading pet retailers and a top veterinarian chain about how they see the future. And our other experts will provide you with many helpful insights on how to improve your business.

For info and tickets, go to global petindustry.com/gpf

The speakers

Here's a selection of some of the top speakers you'll hear:



Marcos Ruao is the CEO of leading Spanish retailer *IskayPet* (Kiwoko/Tiendanimal). He'll talk about their approach to becoming the best retailer in the region. And the challenges they've conquered along the way.



As their Head of Business & Ecosystem
Development, **Fabien Desiage** plays an important
role in **Purina**'s path to becoming a 'pet care' instead
of a 'pet food' leader. He'll walk us through the ups
and downs of that journey and where the industry is
headed.



European online retailer **Zooplus** (speaker to be announced) will give us a peek behind the curtain on their progress, their plans and how they approach customer loyalty.



Kristel Vanderlinden, Managing Partner at **The Future Laboratory**, will share what the retail landscape will look like in the future. And how we can adapt to the changing consumer.



David Sprinkle, Research Director at *Packaged Facts*, is one of the pet industry's most renowned trend experts. He'll give you a glimpse of where the industry is going in the next few years and dive deeper into the latest pet consumer research.



Graham Dodds, Director of Innovation and Transformation at *CVS Group*, will tell us how this leading veterinary services provider from the UK sees the future of the pet industry and their role in it.

Find the complete list of speakers on the event website.

Sponsors



M-PETS BELGIUM

M-PETS is a key player in the manufacturing and distribution of pet products. The company provides a wide range of innovative and exclusive products for dogs and cats, with over 350 patents, and is available in 50+countries worldwide. M-PETS products feature stylish designs, engaging functions and certified eco-friendly materials (FSC, TÜV Rheinland, GRS).



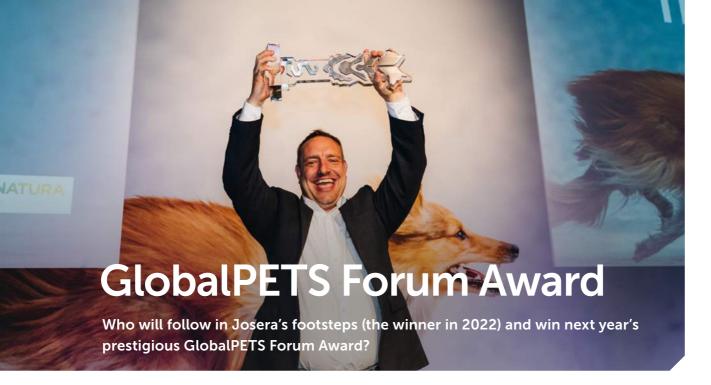
Kormotech UKRAINE

Founded in 2003, Kormotech is a family-owned Ukrainian company that offers high-quality dry and wet food for cats and dogs. In 2021, the PetFood Industry listed them as one of the top 51 manufacturers worldwide. Its social impact initiative, 'Save pets of Ukraine', helps pets suffering from the war. The company's Optimeal and Club 4 Paws brands are available today in more than 33 countries.



APC UNITED STATES/SPAIN

APC offers high-quality and sustainable spray-dried plasma and hydrolyzed plasma for wet and dry formulas, treats and supplements. Plasma can be used for traditional wet functional benefits, providing superior gelling, emulsification and water-holding capacity. In dry foods, treats and supplements, plasma offers the opportunity for a different kind of functionality – supporting immune health.



What is the GPF Award?

This award is presented annually to a company that has demonstrated exceptional performance in relation to the Global PETS Forum theme.

After 2 decades, it has become one of the most important awards in the industry. Curious about who will win in January? Join us in Berlin and find out!



Montego Pet Nutrition

Montego Pet Nutrition started as a family-run business in early 2000 and is now considered to be Africa's

largest privately owned pet food manufacturer. They have gone from producing 65 tons a month to over 300 tons per day – with 9 high-quality brands and over 200 individual products. They export to more than 20 countries and expect to grow rapidly over the next few years.



Company of Animals

Founded in 1979, Company of Animals was created as a hub for activity, research and innovation in animal behavior.

They develop exciting products that work to resolve behavior and training problems, improve animal welfare and enrich the lives of pets and their families. Their products are found worldwide at thousands of independent pet shops, high street stores and online retailers.



KIKA Group

KIKA describe themselves as pet freaks who live and breathe to make a pet's life healthier. Based on more than

35 years of experience in grooming and breeding, they create grooming, healthcare and food products. Their enthusiasm for pet care and high-quality products led them to starting their own retail stores and to exporting to 60 countries.



PharmaPets

PharmaPets is more than an online pet shop. They are a team of vets, experts and medical assistants who are

always ready to help consumers and their pets. Adapted and scientifically substantiated products that are clearly explained and extremely affordable should be accessible to every owner and pet. And that is exactly what PharmaPets wants to offer consumers.



Snellman Petfood

Snellman Petfood is part of the family-owned Snellman Group from Finland. They currently have 2 manufacturing plants in

Finland and Sweden and 3 own brands: MUSH, Fodax and Raw for Paw. MUSH is the biggest raw pet food brand in the Nordics. And Fodax has a large direct-to-consumer sales network in Sweden through its Fodax truck delivery concept. •



The US and Canada: a comparative profile

56

Interview: Richard Maltsbarger, CEO of Pet Valu

61



Although the number of US households owning dogs or cats is 2% less than in 2019, the super premium category and increases in e-commerce sales are expected to drive the industry in the near future.

In the wake of COVID-19, a spike in pet ownership among upmarket consumers was offset by declines in pet ownership rates among less prosperous or more budget-conscious households.

Expensive pets

A national gain of 688,000 dog owners with household incomes of \$100,000 or more between 2017 and 2019 was followed by a far more dramatic increase of 3.2 million dog owners at this highest income bracket between 2019 and 2021.

This translated to a surge in ownership of the most expensive pets to keep among the most affluent households. In terms of households earning under \$30,000, in contrast, a modest national gain of 264,000 pet owners between 2017 and 2019 was followed by a loss of 3.4 million pet owners between 2019 and 2021.

MRI-Simmons data shows the percentage of US households owning dogs or cats in spring 2022 was 50.6%, down from 52.6% in 2019.

Market values up

In keeping with the increase in dog adoption and ownership among upper-income households, pet care spending surged too.

The overall US pet industry, including retail products and pet care services, saw a 14% increase in 2021 – well above the 10% gain of 2020 – with total sales reaching \$123.6 billion, according to the American Pet Products Association (APPA).

Looking ahead, the big picture is somewhat tempered for the product and service sectors alike, with Packaged Facts projecting annual percentage gains for the overall market to taper to 8% by 2026.

Pet food and treat sales are expected to rise from \$58 billion in 2022 to \$79 billion by 2026.

Retail sales of products and services (USD, in billions)

Sector	2022	2026 (projected)
Retail channel pet food/treats	57.92	79.36
Retail channel pet supplies (non-food)	29.92	45.80
Veterinary services	38.09	48.55
Non-medical pet services	11.96	18.48
Total	137.89	192.19

Source: Packaged Facts – US Pet Market Outlook, 2022

Inflationary conditions, extended by ongoing supply chain challenges, will continue to compel a portion of less prosperous households to forgo pet ownership or, more commonly, to opt for less expensive pet care options.

With that said, overall US pet market prospects remain robust by any standard, reflecting both the entrenchment of the 'pets as family' mindset during this pandemic era and the increasingly affluent skew to pet owner demographics.

Pet market = health and wellness

In tandem with the large role that pets play in our daily lives, a large majority of pet owners are fully aware of the very beneficial impact pets have on their physical and emotional health.

The overall pet market – not just veterinary services – should be considered a health and wellness industry. In this vein, sales of pet food, representing the most important pet health product and two-fifths of the overall pet industry, rose by nearly 16% in 2020 and 15% in 2021.

E-commerce driving sales gains

Packaged Facts projects pet food and treat sales to rise from \$58 billion in 2022 to \$79 billion by 2026.

Pet food sales gains are being driven only partly by rising food ingredient and distribution costs.

• SEE NEXT PAGE



Dental care that's

undeniably
inesistible
for pets,
enticingly easy
for pet parents.



TropiClean_® Enticers™ Teeth Cleaning Sticks, Gels, & Toothbrush Kits are available in up to four appetizing flavors dogs love and help fight plaque and bacteria.

ADVERTORIALS



West Paw UNITED STATES Seaflex™: Sea The Change®

Dogs make the world better. West Paw is just following their lead.

The company sees a way to keep tails wagging both furry and finned with their collection of eco-friendly, pet-safe dog toys and home goods, made responsibly with zero-waste Zogoflex® and recycled ocean-bound plastic called Seaflex.

- Made in the US with Seaflex; a blend of 12% recycled ocean-bound plastic, 88% Zoqoflex, and 0% bad stuff
- ◆ Safe & non-toxic: BPA free, Phthalate free, and Latex free
- Floats in water
- ◆ Top-rack dishwasher safe
- Oceanworks® Guaranteed ensures the ocean-bound plastic material meets guidelines for source authenticity, supply chain transparency, and social and environmental compliance. oceanworks.co







Acadian Seaplants CANADA Trust Tasco to keep pets cool

'Kelp' has become a generic term to identify an assortment of various cultivated or wild-harvested seaweeds. Not all marine plants or 'kelps' have the same bioactive compounds nor are they all grown, harvested or processed in the same manner. Acadian Seaplants harvests Ascophyllum nodosum in a socially and environmentally sustainable manner.

Tasco, from the seaweed Ascophyllum nodosum, is the most researched marine plant on the planet. In over 50 separate scientific studies across many animal species, Tasco has proven to help animals cope with a variety of stresses, support their immune function and optimal health and reduce the occurrence of pathogens.

Trust Tasco to help support your pet's optimal health.

Contact the company to find out more about how the scientific benefits of Tasco are Helping our World Grow Healthy Animals™

Acadian Seaplants Limited

tasco@acadian.ca tasco.ca

Dog and cat ownership rates, 2019 vs 2022

(% of all households)

	Fall 2019	Spring 2022
Dog or cats	52.6	50.6
Dogs	40.8	39.4
Cats	23.7	23.4
Dogs and cats	12.0	12.3

Source: MRI-Simmons National Consumer Studies, Packaged Facts

Sharply accelerated by the pandemic, e-commerce has been the medium for pet food market growth, with internet sales of pet products projected to top \$38 billion by 2026, more than doubling the 2021 level.

Led by Amazon and Chewy – which account for approximately 46% and 34% of US pet product e-commerce respectively – the internet and its 'endless shelf' of product options spurs the ongoing humanization, premiumization and customization of pet food.

Food for older pets

In keeping with an increasing focus on the specific needs of individual pets, only half of pet owners use regular adult pet food formulations.

Packaged Facts' April 2022 Survey of Pet Owners shows senior/mature as the most popular specialty type of pet food formulation, used by 19% of dog owners and 16% of cat owners.

Weight management formulations, especially associated with older pets, are also an important specialty pet food, given that some 60% of dogs or cats in the US are overweight or obese.

Super premium category diversifying

More specialized pet food types and formulations are driving – and will continue to drive – pet food sales growth. Due to the looseness of the term 'natural', and the ubiquity of pet foods positioned in this way, 'natural' as a stand-alone benefit peaked several years ago, obliging marketers to segment pet foods into more differentiated types.

Super premium pet food is increasingly mainstream, mimicking human food trends ever more closely. So it has long been clear that the pet food industry would have to premiumize pet food beyond the traditional kibble and wet forms. Freshpet, internet-based DTC start-ups selling fresh pet food (frozen or refrigerated) and 'human-grade' marketers are leading the charge.

In addition, as pet food manufacturers ride the humanization/premiumization wave, they are turning their attention more and more to alternative proteins, recognizing that livestock farming is a major contributor to greenhouse gases.

Product packaging is also an increasingly top-of-mind sustainability concern, with recyclable or compostable dry pet food bags emerging in the market. Sustainable packaging for pet food is no longer simply a feel-good or long-term goal, given growing consumer awareness as well as government regulation.





David Sprinkle Research Director and Publisher marketresearch.com

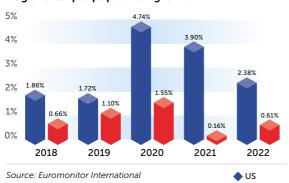


Despite being neighbors, the pet food markets in these North American countries are moving at different speeds. There are several reasons for this.

Changes affect pet population growth

As companies finalized work-from-home policies in the US in 2021, many consumers realized that they would have extra time to commit to raising a pet, so

Dog and cat pet population growth



adoptions continued to see strong growth. After a 4.2% rise in 2020, the US dog population grew a further 4% in 2021 to reach 87.9 million dogs. The country's cat population also continued to grow steadily, increasing by 5.3% in 2020 and 3.8% in 2021 to reach 87.3 million cats.

Things went much slower in Canada, with both the dog and cat populations showing relatively flat growth last year, at 0.2% and 0.1% respectively. In 2021, the country's dog population was 7.4 million and the cat population was 8.2 million. In contrast to the US, increased consumer mobility led to fewer pet adoptions in Canada in 2021, as people spent less time at home, and trends began to normalize.

US sales - and prices - up

Continued growth in pet populations drove sales of pet food in both markets, particularly in the US, where the pet food market is significantly larger than in Canada. Retail volume sales for dog and cat food in the US increased by 5.5% in 2021, compared to 4.5% in 2020.

Canada

Pet population in US and Canada (2021)



Source: Euromonitor International

US value sales growth was 12% in 2021, up from 8% in 2020. This higher value growth was driven partly by premiumization, but also by supply chain disruptions and inflationary pressure that contributed to higher unit prices across all pet food categories.

Shortages as well as supply disruptions directly impacted ingredients suppliers and product manufacturers. For example, the cost of chicken – the most common protein used in pet food – increased substantially in 2021, putting pressure on margins and retail prices. So many pet food companies were forced to raise prices that year, and they have implemented even larger price hikes in 2022 as supply issues and inflationary pressure have worsened.

A different picture in Canada

The trend was a bit different in Canada, as growth in dog and cat food significantly slowed in 2021. Retail volume sales increased by 1.2% in 2021, compared to 4.1% in 2020. This slowdown in volume was mainly fueled by the slower growth of pet populations in 2021.

Retail value sales increased by 4.6%, compared with 8.2% in 2020, as the Canadian pet food market faced the same supply chain disruptions as the US market. If inflationary pressure begins to normalize in 2023 and beyond, prices in both markets are expected to stabilize and growth will follow a more familiar trajectory.

Pandemic-related retail trends

After a strong year in 2020, e-commerce maintained high levels of pet care growth during 2021 in both the US and Canada, and this has continued into 2022.

As new variants of the COVID-19 virus emerged in 2021, many consumers continued to avoid in-store shopping to lower their risk of getting sick.

Sales at bricks-and-mortar outlets, such as supermarkets and other mass channels, increased in both countries in 2021.

Additionally, people appreciate the convenience of online ordering, as a lot of sites offer a wide range of options at various price points, as well as subscription services.

Alongside this continued growth in e-commerce was a rise in sales at bricks-and-mortar outlets such as supermarkets and other mass channels in 2021. These channels struggled in 2020, as most consumers didn't leave their homes to do any shopping, and many ordered their goods online. But sales picked up in 2021 for these outlets, as well as for pet superstores. Going forward, consumers are likely to adopt an omnichannel approach, shopping both online and in stores.

The future of North American pet care

In 2023 and beyond, the premiumization trend is set to re-emerge in wet and, particularly, dry dog food, buoyed by an anticipated post-pandemic economic rebound and heightened local consumer interest in health and wellness, which many owners will apply to their pets too.

Consumers will also continue to be fussy about food for their pets, many of them increasingly seeking out nutritious food with no artificial colorings, flavors or preservatives. Humanization remains an important trend in pet food, as owners increasingly view their pets as valued family members and seek to provide the best care for them. More and more dog and cat foods are looking less like kibble and more like food that humans would eat, with fresh meat, grains and vegetables.

Both markets will see continued positive growth for retail volume sales of dog and cat food through 2027, as pet populations continue to rise, with the US market increasing at a compound annual growth rate (CAGR) of 0.91% and the Canadian market at a rate of 2.65%.



Anne Scott Livingston
Research Analyst at Euromonitor International
euromonitor.com



The Canadian pet food industry is strong and continues to grow. Recognized as an essential industry by the government during the pandemic, the sector has grown significantly since early 2020. In April 2022, its total contribution to GDP was C\$5.66 billion (€4.31B) and the industry was responsible for over 45,000 full-time equivalent jobs along the supply chain.

While no data is available on the current pet population, there are believed to be more pets today than in 2020 when, according to the Canadian Animal Health Institute, 58% of Canadian households owned at least one dog (7.7 million) or cat (8.1 million). Canadians love their pets and are willing to pay substantial amounts for their food and care, generally following global trends for premiumization and humanization.

Retail sales of pet food in Canada (C\$)



Sales steadily on the rise

Pet food retail sales in the country grew 5.7% annually from 2016 to 2021 to over C\$4.4 billion (\le 3.4B) and are expected to reach C\$5.9 billion (\le 4.5B) by 2025. Grocery retailers have remained at around 40% of market share, while pet specialty was approximately 13% in 2020. Both these channels have been declining since 2016. While e-commerce continues to grow, it is not as popular as in other countries.

According to 2022 figures from Statista, Ontario is the province with the highest number of pet stores (776), followed by Quebec (506), British Columbia (347) and Alberta (271).

Most imports from its neighbor

Part of the sales growth is due to an increase in US imports – over C\$100 million (\in 76M) in 2021. The US is Canada's largest trading partner, accounting for 90% of all imports last year (C\$1.2 billion / \in 0.9B).

Canada is a major exporting nation, and pet food is no different. The industry has diversified its trade, with products now going to over 90 countries around the world. In 2021, exports accounted for over C\$1.1 billion (\in 0.8B), up from C\$680 million (\in 518M) in 2017. The largest market is the US, at 40% of total exports, followed by China (almost 20%), the EU region, South Korea, Hong Kong and Japan.

Provincially, Ontario, Alberta and British Columbia were the 3 largest exporters in 2020, followed by Saskatchewan, Quebec and the Maritimes (New Brunswick, Nova Scotia and Prince Edward Island).

Free trade agreements

Canada has the benefit of several free trade agreements that allow for reduced or zero tariffs to much of the world, including the Canada United States Mexico Agreement (CUSMA) – which substituted NAFTA – the Canada-European Union Comprehensive and Economic Trade Agreement (CETA), and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), along with several bilateral agreements.

The Canadian government continues to have an ambitious trade agenda, with an aggressive Indo-Pacific strategy and ongoing discussions with India, Indonesia, ASEAN, MERCOSUR and other regions.

Average yearly household budget allocated to pets in Canada (C\$)



Source: HelloSafe

External and internal challenges

Because Canada enjoys preferential tariff rates from its trade agreements, the biggest challenges the industry faces are ongoing non-tariff trade barriers that generally fall under the commercial requirements of the receiving nations, as well as growing protectionist countries that block imports for political reasons.

Another challenge that is shared by much of the agri-food sector in North America is labor – there are simply not enough skilled workers to fill the many vacancies. The industry is collaborating with other stakeholders to advocate for improved programs and opportunities to increase the labor force.

While e-commerce continues to grow, it is not as popular as in other countries.

Through its trade association, and in close cooperation with government partners, the Canadian pet food industry continues to try to advance these issues through advocacy and with other external relations.

Close cooperation in the sector

As the national association for the pet food industry in Canada, the Pet Food Association of Canada (PFAC) represents pet food manufacturers and their suppliers. PFAC members account for almost 80% of market share, and represent Canadian companies, US-based companies that do business in Canada, and multinational companies with a presence in Canada.

PFAC's main role is to advocate on behalf of its members with the government on regulatory and trade challenges, working closely with the Canadian Food Inspection Agency (CFIA) and other government departments.

PFAC provides members with market intelligence and webinars on key markets of interest, working with trade commissioners around the world. It also holds various events throughout the year for members to learn, network, and discuss key industry challenges, trends and the future of the sector.

One area where PFAC is highly active is at the Global Alliance of Pet Food Associations (GAPFA). This group is made up of national pet food associations and corporate members. Its goal is to harmonize pet food trade across the globe. The work done at GAPFA is instrumental in facilitating trade, through working with the World Organization for Animal Health (WOAH) to ensure pet food is considered a safe commodity for certain animal diseases and by mitigating risk through its processing methods. •



Executive Director of the Pet Food Association of Canada (PFAC) pfac.com





WOULD YOU LIKE TO LINE YOUR SHELVES WITH NEW PRODUCTS? OUR WIDE-RANGING OFFER LOOKS BEYOND THE USUAL PET FOOD, AND IS GUARANTEED BY OUR EXPERIENCE. INDEED, FROM NOW ONWARDS THE OFFER IS NOT ONLY FOR DOGS BUT ALSO FOR CATS!

Choose the revolutionary **Croquette 3+** from **MSM PET FOOD**, formulated for anyone wishing to care for their dog with **+energy**, **+nutrition** and **+flavour**.

Thanks to the production process developed at our base in ITALY, ingredients are transformed without altering their nutritional properties.

This means all the flavour, aroma and nutrients are preserved.

The result? Truly healthy foods, specially formulated for the size, age and specific needs of each dog.

Contact us now to put our products on your shelves and ensure a pet food that stands out from the rest, for your most loyal customers.



"Roughly half of our online orders are for click and collect."

Richard Maltsbarger, CEO of Pet Valu, shares his thoughts on omnichannel, logistics and the retailer's plan to open new stores across Canada.



The increase in the pet population in Canada in recent times is having a positive impact on Canada's leading pet food retailer, Pet Valu. Despite insiders seeing a trend of stabilization in the sector, the company sees an opportunity for growth and increasing its market share. Its system-wide sales were C\$998.1 million (€761.5M) in 2021, a rise of 18.6%. And Richard Maltsbarger expects to end this year with in-store sales growth of 13-15%.

How has the Canadian pet industry changed in the past 2 years?

The Canadian pet market generally grows at around 6% annually, but over the last couple of years, we've grown at just under a double-digit pace. We are now beginning to see the market move back to its long-term rate of growth. But, most importantly, that's with a near-permanent step-up in total demand as a result of the 3 million pet adoptions that have happened over the past 2 years.

What role is Pet Valu playing in the industry?

We have actually been able to earn market share by growing faster than the market has in the past 3 years. That was a combination of organic plus inorganic growth through the acquisition of our new subsidiary Chico in Quebec earlier this year. We have also grown system-wide sales in our company – 75% since the second quarter of 2019 – and now represent approximately 18% of the Canadian pet retail market.

How is the integration process going with Chico?

It is going very well. As 100% of the Chico operation is franchised, from the start we focused on forming relationships with our new franchisees. We designed 4 steps in the integration process. The first, which has already concluded, was closing the acquisition and linking our financials and reporting. The second started on 1 September and was the launch of Pet Valu proprietary brand products in Chico's stores.

The third phase of integration is through wholesale, which will take place after mid-2023. Today, Chico is primarily served through outside and regional distributors, as opposed to Pet Valu where 90% of the products are sourced through our own distribution centers. The fourth integration phase will be in the longer term, as we look at integrating other systems and processes to continue to support the efficiency of the Chico business.

Are you planning to acquire more provincial players?

That's not likely, as we've now entered all regions of Canada, but I wouldn't rule it out if the right opportunity presents itself. We generally use acquisitions to enter new geographic regions where we are not operating yet.

► SEE NEXT PAGE



One of your main strategies is opening new stores...

We're now up to over 715 stores nationwide, across all 10 Canadian provinces, and are within some 5 kilometers of 72% of Canadian pet-owning households. We plan to open 35 to 45 new stores in 2022, and the indications are that another 80-120 stores will probably open in the next 2 to 3 years.

Do you want to increase your presence in urban or rural environments?

We have a flexible model that operates well in all types of markets. Roughly 20% of our stores are in metropolitan or urban areas. About 40% are in suburbs, and approximately 40% in rural environments.

According to our optimization algorithm, we have a total market opportunity of more than 1,200 stores in Canada, at least 500 more than we're operating today. While our stores are sized between 3,000 and 6,000 square feet, the ability to flex the format, the layout and, specifically, the product mix allows us to make good use of local market intelligence to help this process.

It really is to the advantage of our business model if both our franchisees and our corporate store managers have the authority to change some of the product mix in their store to match their local community needs.

You are quite new to e-commerce and omnichannel...

We started with an e-commerce platform in February 2021 and launched our click-and-collect service in September last year. The omnichannel business is growing, and those customers are the best by far. Last year, online accounted for roughly 1% of our total sales. We have not yet announced an updated figure, but we have seen significant and strong growth since then.

Do you expect a double-digit increase in your online operations in 2022?

No, it will be single digits. We are still very early on in our approach to bringing online into our business strategy.

How do you see the weight of online sales in the coming years?

We make no distinction between online and offline, as they are simply different ways in which our customers engage with the brand. As such, we don't actually have a target, nor do we put the emphasis on driving one type of customer behavior or one channel versus the other. For us, it is simply a matter of meeting the customer where they desire to be.

"We represent approximately 18% of the Canadian pet retail market."

"Click and collect is a real logistical advantage."

Canadian pet companies are lagging a bit behind when it comes to e-commerce. Why?

One of the key structural issues is that Canada is a very wide and sparsely populated environment. Doing a quick trip to one of our stores most often outweighs the convenience of a home delivery, as you'd have a waiting time of 3 to 5 days to receive an online order.

How do you organize the logistics for delivering your online orders?

Roughly half of our online orders are for click and collect, which is a real logistic advantage. We do use our regional warehouses in Vancouver, Calgary and Greater Toronto to serve direct-to-customer shipments. But some customers receive their delivery from a local franchisee. We have a unique and innovative way of sharing the net benefit of that order with our franchisees. So the online channel is actually a supplement, rather than competing with the local store.

You recently launched a new service called AutoShip. How does it work?

This is the first service of its kind in the Canadian pet retailing industry. It gives customers the option of setting up a subscription that can either be shipped to their home or be click and collect - so they don't have to give up their monthly trip to the store. When we asked our customers, many of them loved the idea of a subscription plan and the idea of having a recurring purchase, but still wanted to come to the store to get it!

What's next for Pet Valu?

We are continuing to grow our loyalty program and we've recently added new products to that program to increase the membership. At the same time, we are updating our website and want to continue to open new stores as well as to make expansions. Our last point of growth is an investment in our proprietary brands. In 2012, they represented about 20% of our system-wide sales and this year they have increased to 30%. •



David Palacios Rubio Editorial Manager GlobalPETS





with an impactful **brochure**?

Need a new or updated **brand** and **logo** design to express your unique identity?

> Let's work together to get the best out of your brand!



Contact us!

info@keystrokes.nl www.keystrokes.nl/en +31332340500

ADVERTISERS INDEX

Acadian Seaplants Limited54	MSM Petfood Srl60
AFB International43	petMaxi S.A21
GlobalPETS25, 38	Premier Nutrition
IPV Pack S.r.l. Unipersonaleinside front cover	Tropical Tadeusz Ogrodnik63
Inspired Pet Nutrition Ltdback cover	Tropiclean53
Italfeed Srl13	United Petfood Producers Nv/Sa31
Kanegrade Ltd45	Yantai China Pet Foods Co., Ltdinside back cover
Keystrokes 63	Zoomark International/ Promopet Srl2
Kormotech LLC7	

NEXT ISSUE NOVEMBER 2022



Senior pets

Oral hygiene

er survey Accessories sairossam

Retail interview

fats

Flavoring & palatability

Food & ingredients

Global pet industry

Nordics market deep-dive

ADVERTISING DEADLINE: 28 OCTOBER 2022 | PUBLICATION DATE: 25 NOVEMBER 2022

CONTACT HEAD OFFICE (SEE PAGE 3) OR LOCAL REPRESENTATIVES (SEE THIS PAGE).

YOUR LOCAL GLOBALPETS AGENT

Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Turkmenistan, Ukraine, Uzbekistan Yulia Dolzhenkova,

Zooinform +7-4903-6132812 +357-9648-5560 us@zooinform.ru

Austria, Belgium, Finland, Germany, Netherlands, Portugal, Scandinavia, Spain, Switzerland Miguel Mendes de León,

Agri Cross Media +31-6-81543366

miguel@agricrossmedia.com

China, Hongkong, Macao,

Ding Liu +86-10-88102253 liuding@chgie.com

France, Monaco

Alain Girardet, g i r e x agencies +33-6-0828-1482 girardet.alain@wanadoo.fr

Greece, Bulgaria, Cyprus Vassilis Goulielmos, +30-211 4021758 info@welldone.com.gr

Italy, Malta, San Marino Rita Buffagni & Lavinia Fressura,

+39-0522-383620 media@mediatic.it

Poland

Mateusz Karatysz, +48-51-737-84-03 mateuszkaratysz@gmail.com

Turkey

Cengiz Gümüş +90-212-321-10-02 cengiz@ulusalfair.com

United Kingdom, Ireland Andrew O'Kelly, KOA Media Limited

+44 (0)7973 552381 andrew.okelly@koamedia.co.uk

United States & Canada

Philippe Vanderhoydonck, GlobalPETS +31-6-11717071 philippe@pets.nl

Rest of the world

PETS International & GlobalPETS head office +31-33-422-58-33 info@pets.nl



Delicious, Fun & Healthy Meat Paste

Pets are our friends as well as our family

































INTRODUCING OUR FAMILY OF PET CARE BRANDS



THE UK'S FIRST CARBON NEGATIVE PET FOOD MANUFACTURER