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Benevo[®]
Animal friendly animal foods™

Statement on Stiftung Warentest ‘Katzenfutter’ article Vegeco Ltd, 14th March 2014

In March 2014 Stiftung Warentest, a ‘consumer’ organisation and magazine from Germany published an article on 33 cat foods, including Benevo[®] Duo, which received particular attention from the unnamed journalist that wrote the final article.



The article made a number of intellectually and scientifically unsound statements about vegetarian/vegan diets for dogs and cats and the nutritional analysis of samples of Benevo Duo.

Unfortunately, it is impractical to address every question from individual consumers who were either angry about the magazine’s presentation of the subject of vegetarian/vegan pet foods or who were concerned about the article’s conclusions.

For that reason, we decided to publish this statement to clarify a number of issues they did not explain to consumers and also answer the main questions that have arisen as a result of the article.

We realise that many consumers will know very little about Benevo as a business. So firstly, we would like to introduce ourselves:

Who are Benevo?

You have probably never seen a Benevo advert. We are not attention seekers. Over the years we have not boasted of our achievements, nor do we try to collect accolades and awards. We don’t make exaggerated claims, nor do we have any dark secrets to hide from people. So who are we?

Benevo is a vegan pet food brand, managed by Vegeco Ltd, a vegetarian company based in the United Kingdom that has been dealing with vegan pet foods since 2003. We are the largest manufacturer and distributor of vegan pet foods in Europe, trading around the world. Benevo pet foods have been in use since 2005.

We are experts in this field and have often been interviewed by television, radio and newspaper journalists and researchers on this subject. The owners of Vegeco Ltd are vegetarian and vegan themselves. We therefore understand exactly what ‘vegan’ means and we naturally share the beliefs and concerns of the customers we serve.

Our company’s mission is to provide viable alternatives to products that exploit animals. Benevo was originally established specifically to create vegan alternatives to meat based pet foods.

We are independent and privately owned, meaning we do not have to please profit hungry shareholders or parent companies that might want us to find ways to sell their waste products. We do not consider that we are part of the ‘pet food industry’ as we have little in common with those companies and how they do business, as they primarily make money selling the ‘by-products’ of the meat industry. Instead we consider that we are part of the

vegan movement. At the heart of our business is the belief that it is morally wrong to exploit or kill animals for profit.

For those reasons, as a company Vegeco is unable to buy or sell any meat products. Additionally, we do not buy or sell egg or dairy products. Our warehouse and offices are entirely vegetarian. Staff and visitors are not permitted to bring meat or slaughter derived products onto our property.

As a business handling pet food we must be routinely inspected by Trading Standards (UK Government inspection body) and other bodies such as our Organic Certification (our warehouse is organic certified). In the course of exporting our products they have regularly been tested. So we have to manage many quality control procedures to comply with numerous regulations and certifications.

Benevo products are developed in consultation with professional animal nutritionists and feed formulators based on the FEDIAF and AAFCO guidelines. Our ingredients are carefully selected and sourced specifically for our products and this means numerous additional expenses in ensuring that, for example, the vitamins that we use are not gelatine coated. We are able to trace our ingredients back to their origins.

What are vegan pet foods?

Before we address the numerous problems with the Stiftung Warentest article, we would like to firstly reflect on the original and in our view the only correct definition of 'veganism'. The word 'vegan' was created by the Vegan Society of the United Kingdom and in their Memorandum of Association they define veganism as follows:

"...the word "veganism" denotes a philosophy and way of living which seeks to exclude — as far as is possible and practical — all forms of exploitation of, and cruelty to, animals for food, clothing or any other purpose; and by extension, promotes the development and use of animal-free alternatives for the benefit of humans, animals and the environment."¹

Benevo products completely conform to this definition. Having been developed as an animal-free alternative, we do not rely on any exploitation of animals in our products.

Unfortunately, some people (usually those ignorant of principles of veganism in general), will misunderstand 'vegan' as meaning simply a 'vegetable diet' or 'plant based diet'. It is of course a far more comprehensive idea than diet alone and it certainly is not about the exclusive reliance on vegetables for nutrition.

The Stiftung Warentest investigation

We first received communication of this 'investigation' from Stiftung Warentest in late November 2013. Unfortunately, the communication was in German only and on paper. Consequently, we were unable for some time to fully interpret the documents as none of our staff speak German. When we had a proper translation of the nutritional analysis and the accompanying letter, it raised only one immediate concern.

We had noticed that the analysis of a sample they tested had produced a worrying result, indicating that it had detected 'chicken'. (We would like to point out that the sample tested negative for beef, pork, turkey, duck, goose, sheep, goat, horse/donkey, kangaroo, ostrich, rabbit, hare and fish.) Clearly, as we do not buy chicken meat (or any of those other meats), this result did not make sense and we wanted further details from Stiftung Warentest on the testing they had done.

¹ <http://www.vegansociety.com/pdf/ArticlesofAssociation.pdf>

We were also invited to 'comment' on the results, which we did. Our comments have not been published or reflected in the article by the magazine.

It is important to understand that this test result is 'qualitative' not 'quantitative'. That means that while the test that was used is very sensitive, it can only show that there either *is* or *is not* a species specific protein or DNA in a sample. It cannot say *how much* is in the sample, nor can it say how or where it may have entered that sample.

As a business, we are familiar with such tests, they are required in many import procedures around the world and we have commissioned tests ourselves.

The most common form of test for detecting which animal species meat has come from is an ELISA test that will either detect specific DNA or specific proteins.

This type of test will normally check for a number of common species used for meat and involves taking a small amount (only a few grams) of the product. It can detect levels as low as *1 part per million*, that is 0.0001%.

Therefore a positive result for 'chicken' could mean as little as 0.0001% of a sample as small as 3g, which would be 0.000003g of 'chicken'.

Those kinds of numbers are rather hard to imagine, so to put that in perspective, a typical grain of rice is around 0.28g, which is almost 100,000 times more than the levels that may be detected in an ELISA test. Alternatively, a grain of table salt which is approximately 0.0648g would be 21,600 times larger.

It was obvious that the magazine had conducted tests on a number of cat foods and we knew that it is possible for samples to be easily cross-contaminated with microscopic amounts of material – amounts so small they cannot even be seen with the naked eye. We now know that there were 32 other products tested which all contained meat and at least 23 of the products contained chicken.

We wrote to request more details from Stiftung Warentest:

“We have one area of serious concern – you seem to have a positive DNA test result for chicken, which we think cannot be correct. We have tests done on our products when we are exporting around the world, due to restrictions on animal products in many countries – in particular beef. So this is an anomaly.

We are well aware that such results do not indicate the amount of material, which can be extremely small – including cross contamination during testing. We would like to know, were any other pet foods being tested in the laboratory at the same time? Can you be 100% certain there was no possible cross-contamination from spoons, bowls, or other tools or even from the person handling chicken from other products? For example, did they wash all equipment and their hands between handling each product? We have many doubts about how such a result could appear and we have been unable to contact or get a reply from your organisation so we can discuss the testing process.

You have not indicated what method of DNA testing was used, nor have you indicated the batch code of the product – which essential for us to check our production records, or to test any stock from the same batch and to even provide a product recall if necessary.”

Letter sent from Vegeco Ltd to Stiftung Warentest on 11th December 2013

As you can see, we asked them for the batch details, in case it was necessary to do a product recall. We requested details of where the test was conducted, under what

conditions and what other products were tested at the same time. We asked them what steps they had taken to ensure that there was no cross contamination of samples because, as we have explained, even a microscopic amount of one product on a spoon or finger could contaminate another sample and give a positive result.

The fact is that the positive result *only* proved that that there was 'chicken' detected in the *tested sample*, not necessarily in the product.

We also told them that we do not *add* any meat ingredients to any of our products and unless they could be certain (which we do not think they can be) that the sample was definitely not contaminated during testing that they should be careful not to make allegations:

"Benevo is a completely meat free brand – as we do not buy any meat ingredients for our products, meat is not present during production and we even have to pay substantial additional costs for special preparation of facilities, as well as different ingredients and supplements that are free from animal products, such as the gelatine normally used to coat vitamins.

So we must ask you to be careful about making any statement implying there was 'chicken in the product' when we think that is extremely unlikely indeed and will present a completely unfair doubt in the minds of our consumers about how seriously we take our product quality."

Letter sent from Vegeco Ltd to Stiftung Warentest on 11th December 2013

Despite this letter, we see now in the final article that they have decided to insinuate that we do *add* 'animal ingredients' and therefore we are deceiving consumers, saying we 'keep them in the dark'.

Stiftung Warentest replied in a letter dated the 19th December 2013. They claimed that they would check that their testing procedures were accurate and let us know if they needed any more details. They then made the following statement:

"Furthermore we would like to inform you that as a matter of principle we do not provide any information about the batch numbers of investigated products. Since we only included brand products and retail chain own brands in our investigation, we assume that the products are of consistent quality independent of the batch."

Letter from Stiftung Warentest to Vegeco Ltd 19th December 2013.

We were not impressed. As a 'matter of principle'? What on earth is the 'principle' that justifies withholding information that would allow a manufacturer to conduct its own safety or quality checks?

Obviously, we can see how that disadvantages the manufacturer and protects their articles from being contradicted, but how is that in the interests of consumers? How is making 'assumptions' a serious approach to an 'investigation'? There was no need to make any assumptions; they would have been welcome to come and ask us questions but they did not.

We were talking about pet food, not washing machines. The comment in that letter was extremely naïve. Pet food, like many kinds of food, will naturally vary to some extent from batch to batch. Sometimes, this is because natural ingredients can vary during the course of the year. Products may even vary to a degree from individual product to product as well as batch to batch. It simply cannot be avoided, only limited as far as possible. That is why nutritional values on pet foods are normally based on typical averages.

We were specifically alerting them to our concern that the test had possibly identified a trace contaminant. We had made it explicitly clear that we were concerned about an

anomaly that we wanted to investigate – so this absurd comment about ‘consistency’ not only revealed a poor understanding of the realities of manufacturing foods but completely missed the point of our letter. We were discussing something that is *inconsistent* for our product!

That unhelpful letter is the only communication we received from Stiftung Warentest. All other communications from us were ignored.

Consequently, at this time we still do not know what production batch the sample was taken from and where or when it was bought and where or how the sample was tested. It also means it has been impossible to go back to production records to look for any potential problems that might have occurred. We think this clearly illustrates that the magazine are not as concerned about consumers as we are!

We are certain that the entire batch has now been consumed so it is impossible to conduct any comparative test on that batch.

By this time we were less than impressed with Stiftung Warentest’s attitude, but we expected to at least to receive a fair and objective comparison to other products.

The Article

Now we shall address the article itself, taking each section with our translation of it and present our observations:

Das sagt der Hersteller

Benevo Duo Complete Food for Cats & Dogs ist laut Delklaration ein vegetarisches futter. Der Hersteller verspricht sogar noch etwas mehr. Er gibt an, neben Fleisch auch jegliche andere tierische Zutaten zu verzichten. Das Futter soll sich für Katzen und Hunden eignen.

What the manufacturer says

Benevo Duo Complete Food for Cats & Dogs is a vegetarian feed according to the label. The manufacturer even promises something more. They state that besides meat, they do not use any other animal ingredients. The food should be suitable for cats and dogs.

Quoted from Stiftung Warentest, March 2014, Page 85.

That is all true; we do not use animal ingredients. The article continues:

Das sagt die Wissenschaft

Eine vegetarische oder sogar vegane Ernährung ist für Katzen nicht artgerecht und auch für Hunde nicht optimal. Katzen sind Fleischfresser. Daran ist ihr Stoffwechsel angepasst. Ein rein pflanzliche Ernährung kann zu Mangelerscheinungen führen.

The science says

A vegetarian or even vegan diet for cats is not appropriate to the species and also not optimal for dogs. Cats are carnivores. This is what their metabolism is adapted to. A purely plant based diet can lead to nutritional deficiencies.

Quoted from Stiftung Warentest, March 2014, Page 85.

That is not what the ‘science says’. It is simply not true that scientists in the field of animal nutrition would all agree with such a simplistic statement or those conclusions.

In a recent example, Prof. Dr. Jürgen Zentek of the Faculty of Veterinary Medicine, Institute of Animal Nutrition, Berlin, who sits on the FEDIAF Advisory Board and assisted

in producing the 'Nutritional Guidelines for Complete and Complimentary Pet Foods for Cats and Dogs', explained in a letter of the 11th July 2012² that cats *can* be fed properly formulated and supplemented vegan diets and referred to one of the Benevo cat foods.

The journalist clearly demonstrates they have only have a simplistic and superficial understanding of animal nutrition and the principles of veganism. They are generalising and attacking one idea with another without really understanding either.

Stating that a 'purely plant based diet can lead to nutritional deficiencies' is a completely misleading comment in relation to Benevo Duo, which will have caused many people to now believe our products are potentially dangerous.

It is essential for people to understand that Benevo Duo is not a simply a can full of vegetables, it is a formulated pet food with added vitamin, mineral and nutritional supplements. Therefore such comments are actually irrelevant to our product and are highly prejudicial.

What the article does not tell readers is that in Stiftung Warentest's *own nutritional analysis*, Benevo Duo *exceeded all of the FEDIAF guideline levels*. That is definitely not the impression this article gives to its readers.

They also do not tell readers that the level of protein is equivalent to 38% as dry matter compared to the FEDIAF minimum of 25% and that their *own analysis* assessed the protein digestibility at 95.2%.

We have included a table later in this document, showing the FEDIAF 'Nutritional Guidelines For Complete and Complementary Pet Food for Cats and Dogs' from 2013. We compare the results of Stiftung Warentest's nutritional analysis of Benevo Duo with all the nutrients in the FEDIAF guidelines.

Over the years we have NEVER had a complaint about Benevo Duo causing any problems with either cats or dogs. Quite the contrary, we receive very positive comments from customers who are very happy with the product.

The reality is that the only problem we have experienced with Benevo Duo is that cats are very fussy eaters, so not all cats like it! That's not as shocking as the article's claims, but that is the (boring) truth.

In the next paragraph from the article we have emphasised some particularly misleading words by underlining the text:

Das zeigen die Analysen

Die Labortests lassen darauf schließen, dass das Futter entgegen den Angaben des Herstellers tierische Zutaten. enthält Wir wiesen Huhn nach.

What the analysis says

The laboratory tests suggest that the food, contrary to the manufacturer says, contains animal ingredients. We proved that it contains chicken.

Quoted from Stiftung Warentest, March 2014, Page 85.

That is an extremely misleading and damaging statement and a complete distortion of what the analytical results indicated.

An 'ingredient' is something you *deliberately select* and use for a purpose such flavour or nutrition. There are no 'animal ingredients' in ANY Benevo product. We do not buy or use

² <http://www.supercoffee.de/assets/images/Katzenfutter-Uni-Berlin.pdf>

any animal products at any stage in our product development or manufacturing and we do not require them for flavour or nutrition.

As we have explained the test they relied on is incapable of proving that we add meat to our products. It only *proves* with certainty that there was a trace of chicken in the small sample they tested, at levels higher than 1 part per million.

We remind readers that we had written to Stiftung Warentest in December 2013, telling them that we do not use any animal ingredients. It seems they have decided that we must be liars, and are happy to suggest that to their readers.

We found the suggestion that we would deliberately add meat to our products extremely offensive. It insinuates that we would sell meat for profit, against our stated beliefs and that we would deliberately deceive Vegetarians and Vegans with no regard for their beliefs either.

The journalist continues, writing:

Anders wären die Mengen Phosphor, Kalzium und Arachidonsäure, die das Futter enthält auch kaum zu erklären. Nur mit diesen Komponenten ist die ernährungsphysiologische Qualität des Futters befriedigend, für Hunde sogar gut.

Otherwise, the amounts of phosphorus, calcium and arachidonic acid which the food contains would be difficult to explain. With these components, the physiological nutritional quality of the food is satisfactory, and even good for dogs.

Quoted from Stiftung Warentest, March 2014, Page 85.

That is another assumption. In fact it is an allegation, which is completely unsupported by the results of the analysis. The unscientific claim the journalist is making is that the nutrient levels cannot be correct or healthy *unless* there is we added chicken to the Benevo Duo.

The results in Stiftung Warentest's analysis are not evidence supporting the allegation that we *add chicken* to Benevo Duo – nor is it 'difficult to explain'.

Their own analysis actually shows that Benevo Duo has level of phosphorus and calcium that are higher than *pure chicken*! Clearly that claim does not make sense. Anyone who has used Benevo Duo will also know that you cannot see a single piece of chicken in it. So how is that possible?

It is possible because the plant based ingredients we use provide most of nutrients and then these are further supplemented to meet the FEDIAF guidelines. For example, B12 is also essential, so it must be added because it is not present in plant foods. A Zinc supplement must be added too, to prevent deficiencies because the main plant ingredients have insufficient levels.

All of the major ingredients contain calcium. Cooked carrots have more calcium per 100g than boiled chicken meat. Also, we *add* calcium, which is declared on the label. Phosphorus is also present in most foods, including our major ingredients, while brewer's yeast (which we also use) is a very rich source of both phosphorous and calcium.

We have supplied a small table later in this document, illustrating the various calcium and phosphorus levels in ingredients we use. Furthermore, if those levels were low, we would not have to add chicken to correct it, we could add Dicalcium Phosphate which is available as a vegan supplement and provides both.

As a side issue, there is a further error in that statement. The arachidonic acid levels in Benevo Duo exceed the FEDIAF recommended levels for cats, however dogs have no requirement for arachidonic acid in their diet. They make their own in their livers, as we do.

The article on Benevo Duo concludes with the following statement:

Test Kommentar: Benevo lässt seine Käufer über die tatsächliche Zusammensetzung des Futters im Unklaren.

Test comment: Benevo leaves its buyers in the dark about the actual composition of the food.

Quoted from Stiftung Warentest, March 2014, Page 85.

Yet again, the article insinuates that we are deliberately being dishonest about how we make our food in order to deceive people. That is a disgraceful and offensive allegation to make.

We do not accept that we leave people 'in the dark', because we list our ingredients in a very transparent way. We never hide behind ambiguous terms like 'by products' or other obscure language like most other manufacturers, because we are proud of the quality of the ingredients we use.

In the UK, there are laws against misleading descriptions or labelling of products. We do not appreciate Stiftung Warentest suggesting to its readers that we may be breaking them.

Before we produce any packaging for our products, we choose to consult our local government office that enforces consumer law, known here as 'Trading Standards'. We only print our packaging after they are happy that the product and packaging are legally compliant. Trading Standards also conduct independent tests on our products. They do not consider we have ever misled consumers.

Despite Stiftung Warentest's slurs, we hope that people will recognise that this document demonstrates our commitment to doing business in an open and honest way.

Consumer Questions

We have unsurprisingly received a number of enquiries following the publication of this magazine, so we will now address those concerns about the test results.

Does Benevo put chicken or other animal ingredients in Benevo Duo?

Of course not! Firstly, it would be incredibly stupid to create a product that would only appeal to a small niche market and then deliberately lie to people about it – that would eventually result in our business being prosecuted, fined and even closed. If we actually wanted to sell chicken, there is a far bigger market available by saying it IS chicken instead of pretending it is vegan. It should be obvious that if we wanted to get rich by lying to people, there really are better options!

Secondly, we do not *need* to use any meat. It offers no financial advantages for us and we do not need it to meet the nutritional requirements of cats or dogs.

If the sample was not contaminated in the test, could there be contamination from chicken in the food?

This is actually a complicated subject. The short answer is that it is unlikely but possible.

Unfortunately, due to the Stiftung Warentest's refusal to communicate with us it is impossible to determine if there was an accidental trace of chicken caused by a failure in

clean down processes in the factory or if the laboratory accidentally contaminated the sample themselves. So from here onwards we have to speculate on all possibilities.

As we have said, we do not buy any meat products, so we certainly do not *add* chicken to any of our products. Benevo Duo is usually produced in 10,000 kilogram batches, and we make numerous batches through the year. We can guarantee to our customers that we do not buy even 1g of animal derived ingredients for the production of this product.

Due to these relatively small production volumes (the big corporates will run productions all day and night), Benevo Duo must be produced in a specialist facility that also handles meat products at other times. There are no vegetarian or vegan dog or cat foods anywhere in the world that we know of that are made in a vegan factory at present. We will most likely be the first to achieve this. Even vegan products for humans are often made in facilities that handle non vegan ingredients. The key issue here is how well the risks of cross contamination can be managed. This is not as simple as it seems, powders can travel in the air and contaminate other lines, water can easily carry contaminants, etc.

Obviously, we have systems and procedures in place to minimise all possible cross contamination risks which include strict wash down procedures. However, it remains a small possibility that a trace of chicken could have come from contamination on machinery or other equipment, whether during preparation, cooking or canning, etc.

Bearing in mind the volume of raw materials that are processed, most risks of transfer of meat contaminants from a failure in the wash down procedures would occur at the very start of the production, as the processing of the ingredients would clear any contaminants. So even if there was a failure to completely clean all equipment correctly, it is extremely unlikely that any residues from other products would be able to contaminate an entire batch.

In theory, even just 1 gram of chicken stuck in the machinery could be enough to create a 'positive' ELISA test result if the sample was from the start of the batch. Alternatively, if any of our ingredients had been placed in contact with a container that had previously held chicken, or even chicken derived products (like a gravy) there could be transfer. Remember, this type of test is extremely sensitive, it only takes *one part per million* to get a 'positive' result.

To put that in perspective again, by comparing with a grain of rice, if we talk of 1 part per million in a can of Benevo Duo which is 369g, that would be 0.000369g. That is roughly equivalent to one 7588th of a grain of rice!

The issue that concerned us from the outset was not that any substantial quantity of chicken had been 'added' to our product but one of 'adventitious contamination', which in simple terms is accidental traces of chicken being transferred onto our product.

However, this is *pure speculation* as we were not even provided with definitive assurances that the tested sample was not contaminated with other cat foods during testing.

All we could do in response to these possibilities was go back to those systems and procedures and ensure that they are effective and to try identify any risks we have not already considered that might lead to them failing in some way.

As the Vegan Society's definition demands of us, we must do whatever is '*possible and practical*' to prevent it.

We hope our customers reading this will now understand that as we do not buy meat or animal products, we do not profit from them either. If this is a case of trace contamination, as disagreeable as we may all find the thought, we can assure our Vegetarian and Vegan

customers that they have not contributed to the chain of profit that drives the commercial exploitation and killing of animals.

Is it safe to use Benevo Duo?

Yes this is not a safety issue for cat or dogs. All of the essential nutrients for cat health were proven to be in the food at the correct levels. Benevo Duo has been used safely for years, with not a single report of either cats or dogs developing any problems from eating this product.

Does this affect any of the other Benevo products?

No, we produce them in separate facilities and they have completely separate ingredient sourcing and handling processes.

Can we trust Benevo?

We really believe that is up to each individual. Trust is something that is given and cannot be demanded. We think we are trustworthy, as we take the concerns that vegan consumers have just as seriously as they do. In fact we are exposed to a great deal of financial and legal liability in our work to achieve those goals, so no one should be in doubt about our commitment.

Ultimately, all we can hope is that we are judged by our actions and the experiences of our customers and not by the careless words of Stiftung Warentest's journalists.

General Questions

Now we must turn to some more general questions that we have been asked in response to the article, which address vegan nutrition dog and cat foods.

The magazine says cats cannot eat a vegan diet because they are carnivores.

That is a very common misconception that we frequently have to address. This idea is based on some facts that are true, but definitely not the 'whole truth'!

We were very disappointed to read such comments from a magazine that presents itself as taking a 'scientific' approach to its investigations. Unfortunately, these ideas are very commonly held and lead to very simplistic and poorly informed opinions.

When Stiftung Warentest's journalist writes that a 'vegan diet' is not suitable for cats (or even dogs!) they clearly demonstrate that they have made a number of assumptions.

The obvious question that should immediately arise in any intelligent mind is "what is a vegan diet?" As all Vegans know, there really is no such thing as a 'vegan diet'. Veganism is not prescriptive, so 'vegan diet' could include hundreds of possible sources of nutrition. Equally, one could also choose to eat only bananas and describe that as a 'vegan diet', so speaking in such general terms is essentially meaningless.

Assuming that 'vegan' simply means 'plant based' is not a correct understanding of the principles of veganism or what would be acceptable in formulating a vegan cat food.

So for that reason, describing a 'vegan diet' as not a suitable 'species specific' diet for cats is a gross simplification of the facts. As we said earlier, it is relying on one scientific concept to criticise another without truly understanding either. It is a deeply flawed way of thinking about the subject.

No-one is trying to turn a carnivore into a herbivore but the classification of cats as carnivores, even being classed as 'obligate carnivores' does not mean cats are unable to eat or digest anything except meat.

But cats are 'Obligate Carnivores'...

Cats of all species are described as 'obligate carnivores', which is usually understood as meaning 'cats must eat meat'. What it really means that a *wild cat* in the *natural environment* would not be able to survive by foraging for fruits and vegetables.

This is because all cats lack the ability to properly synthesize vitamin A, taurine and arachidonic acid in their liver as other mammals do. This means that *in the wild* they must be predators, where they will get these nutrients from killing and eating other animals (these nutrients are most concentrated in animals' livers). On the other hand, a domestic cat being fed by humans will have access to a huge variety of other nutrition sources that a wild cat would not. After all, cats did not evolve to eat deep sea fish, but they are commonly fed them (and an all 'fish diet' would lead to deficiencies too).

Therefore the taxonomic classification of an animal as a 'carnivore' does not limit what it is actually able to eat; it only describes what it would *have to eat* if it were surviving in the wild.

You may also hear the objection that cats cannot properly digest plants because of a lack of suitable enzymes, etc. We are not suggesting that cats should graze grass or fruits. The ingredients used in our products are not raw vegetables; they are cooked and are highly digestible. The Stiftung Warentest analysis scored the protein digestibility at 95.2%.

The important question with cats is really 'does it meet their needs?'. That assessment should be based on a sound understanding of their nutritional requirements rather than presumptions and prejudices about what would be 'appropriate' and what constitutes a 'vegan diet'.

FEDIAF guidelines set out the requirements that must be met for cats to maintain normal health. Benevo Duo and Benevo Cat exceed those requirements, so cats eating those foods are normal and healthy.

So in contrast to the statement Stiftung Warentest makes, the reality is that no animal 'needs' meat, they need *nutrients*. In the wild they may only be available to a cat in meat but we are not talking about wild cats in a wild environment. If all of those nutrients can be obtained from a variety of sources and brought together into a complete food, the animal will be fine. That's what Benevo foods do.

On a philosophical point, we concede that a cat cannot become 'vegan' any more than it can become Buddhist. But this is a very different matter to whether one can meet the nutritional requirements of cats without killing or exploiting other animals. There is no scientific or technical reason that makes it impossible to feed a vegan *cat food* to a cat.

The article says that a vegetarian or vegan diet is not 'optimal' for dogs.

That is simply nonsense, for the same reasons as above. The author of the article has clearly made assumptions about what a 'vegan diet' is. The comment is a meaningless generalisation. An optimal diet for dogs is one that meets their needs by providing all the nutrients they need, which is what all of our dog foods do without relying on any meat or other animal ingredients.

The article says that cats and dogs have different requirements

That is true, cats require more protein and more nutrients in their food than dogs. However, dogs *can* eat cat food, while cats should not be fed a dog food. This is because dog food does not have adequate levels of nutrients for the requirements of cats. Benevo

Duo is primarily formulated for the nutritional requirements of cats, but is actually more widely consumed by dogs, who take what nutrients they need from the food then excrete anything else. They can even benefit from the additional nutrients. So it is not dangerous for dogs to eat Benevo Duo.

What does 'Vegan sourced taurine' mean?

It means exactly what it says! The ingredients we use are not made from animals or any animal products or through the exploitation of animals. Nutritional substances like taurine are now manufactured in factories using chemical synthesis from non animal derived source ingredients.

Synthetic taurine is chemically identical to the natural form and is routinely added to commercial cat foods as well as 'energy drinks' such as Red Bull. Likewise, a plant derived arachidonic acid is often added to baby formulas. Vitamin A is also chemically synthesized and used in human and animal supplements. It is because these substances are chemically identical they are treated by the body of the cat in the same way as naturally occurring forms and are safe and effective.

Long term Taurine deficiency can have very severe consequences, including to heart and eye problems. So this ingredient is absolutely essential for cats and naturally we ensure that our products are supplemented. The Stiftung Warentest analysis showed the Taurine we added had exceeded the FEDIAF requirements. Vegan cat foods have been in use for over a decade around the world and there are no studies showing cats suffering damage from using the products in the correct manner. The studies that have been undertaken showed results all within 'normal' ranges.

I thought Arachidonic acid is only found in meat?

Most animals can produce their own Arachidonic acid (abbreviated as ARA or AA), however cats are not able to, so for them it is an essential nutrient. A wild cat living in the natural environment would obtain arachidonic acid by eating other animals, or for domestic cats from meat in cat foods. However, a vegan source is available which is derived from a fungus, *Mortierella alpine*, which is also added to baby formulas.

Finally, a question we have been asked several times since the Stiftung Warentest article was published:

Will you sue Stiftung Warentest?

A few people have suggested that we should take some legal action. Over the last couple of weeks we have given that question some serious thought.

Testing products in an open and unbiased way is fine with us. We have nothing to hide.

However, Stiftung Warentest have misinformed their readers about animal nutrition, implied that Benevo Duo is possibly dangerous, alleged we use 'animal ingredients' and insinuated that we deliberately deceive our customers.

These constitute a serious slur against our business, leaving all of their readers with a completely distorted impression of our products and how we run our business.

Our current understanding is that this could be the legal basis for a defamation case under German Law.

As a business we have been forced to take legal action before (which we have always won). However, it can take years to reach a conclusion, during which time the business suffers while time, energy and money is diverted away from core business activities.

Even if we had a solid legal basis in law for taking action that we knew we could win, we would expect them to fight any legal action against them. They would have to, as their business model is built on the public believing they cannot be wrong!

Organisations like Stiftung Warentest invariably have well funded legal defences and they could easily outspend us. Stiftung Warentest had reported sales revenues in 2012 totalling approximately € 39.5 million. So regardless of who is right or wrong, the cost of legal action (and in being represented in another country and in another language) could potentially result in us running out of money before them.

Additionally, the time and financial expense required would ensure that Benevo was unable to do any further research and development or produce any new vegan products.

So we are not planning to take legal action. We will not put our pride before the animals.

In our view the best way for Vegetarians and Vegans to deal with stupid comments is to expose them to scrutiny. We believe that the best response is for Vegetarians and Vegans to beat a bad argument with a better one.

That is all we wish to say on this matter. We are going to get back to work, developing and improving our products for customers, their companions and of course, the animals.

Damian Eadie

Benevo Team
Vegeco Ltd, UK.

14th March 2014

Stiftung Warentest's November 2013 analysis of Benevo Duo compared with FEDIAF's 2013 Nutritional Guidelines For Complete and Complementary Pet Food for Cats and Dogs'.

Nutrient 'X' represents values that Stiftung Warentest did not test for.	Stiftung Warentest Units of Measurement	Benevo Duo Wet (As sold)	FEDIAF Units of Measurement	Benevo Duo Adjusted for Moisture (In FEDIAF units)	FEDIAF Recommended Minimum per 100g (dry matter).	
					Adult	Growth / Reproduction
Protein	g/100g	8.3	g/100g	38.60	25.00	28.00 / 30.00
Arginine	mg/kg	5710	g/100g	2.656	1.00	1.07 / 1.11
Histidine	mg/kg	2190	g/100g	1.019	0.30	0.33
Isoleucine	mg/kg	4320	g/100g	2.009	0.49	0.54
Leucine	mg/kg	6560	g/100g	3.051	1.17	1.28
Lysine	mg/kg	4610	g/100g	2.144	0.34	0.85
Methionine	mg/kg	1440	g/100g	0.670	0.17	0.44
Methionine + cysteine	X	X	g/100g	X	0.34	0.88
Phenylalanine	mg/kg	4330	g/100g	2.014	0.46	0.50
Phenylalanine + tyrosine	X	X	g/100g	X	1.76	1.91
Threonine	mg/kg	3190	g/100g	1.484	0.60	0.65
Tryptophan	mg/kg	890	g/100g	0.414	0.15	0.16
Valine	mg/kg	4490	g/100g	2.088	0.59	0.64
Taurine (canned pet food)	mg/kg	445	g/100g	0.207	0.20	0.25
Taurine (dry pet food)	mg/kg	n/a	g/100g	n/a	0.10	0.10
Fat	g/100g	3	g/100g	13.96	9.00	9.00
Linoleic acid (ω-6)	g/100 fat	26.3	g/100g	0.79	0.50	0.55
Arachidonic acid (ω-6)	g/100 fat	0.4	mg/100g	8.00	6.00	20.00
Alpha-linolenic acid (ω-3)	g/100 fat	1.9	g/100g	0.002	-	0.02
EPA + DHA (ω-3)	g/100 fat	< 0.1	g/100g	0	-	0.01
Minerals						
Calcium	g/100g	0.36	g/100g	1.67	0.59	1.00
Phosphorus	g/100g	0.24	g/100g	1.12	0.50	0.84
Potassium	g/100g	0.44	g/100g	2.04	0.60	0.60
Sodium	g/100g	0.08	g/100g	0.37	0.08 ^a	0.16
Chloride	X	X	g/100g	X	0.11	0.24
Magnesium	g/100g	0.046	g/100g	0.214	0.04	0.05
Trace Elements						
Copper	mg/kg	3.5	mg/100g	1.63	0.50	1.00
Iodine	X	X	mg/100g	X	0.13	0.18
Iron	mg/kg	46.3	mg/100g	21.53	8.00	8.00
Manganese	X	X	mg/100g	X	0.50	1.00
Selenium	µg/kg	0.12	µg/100g	55.81	30.00	30.00
Zinc	mg/kg	0.046	mg/100g	18.05	7.50	7.50
Vitamins						
Vitamin A	IU/kg	1582	IU/100g	735.81	333.00	900.00
Vitamin D	IU/kg	203	IU/100g	94.41	25.00	75.00
Vitamin E	mg/kg	21.3	IU/100g	22.02	3.80	3.80
Thiamin (Vit. B1)	mg/kg	1.3	mg/100g	0.605	0.56	0.55
Riboflavin (Vit. B2)	X	X	mg/100g	X	0.40	0.40
Pantothenic acid	X	X	mg/100g	X	0.58	0.57
Vitamin B6 (Pyridoxine)	X	X	mg/100g	X	0.25	0.40
Vitamin B12	X	X	µg/100g	X	2.25	2.00
Niacin (Vit. B3)	X	X	mg/100g	X	4.00	4.00
Folic acid (Vit. B9)	X	X	µg/100g	X	80.00	80.00
Biotin	X	X	µg/100g	X	7.50	7.00
Choline	X	X	mg/100g	X	240.00	240.00
Vitamin K	X	X	µg/100g	X	10.00	10.00

The declared levels are 76% moisture. This difference may be explained by settling of the product in the can.

The FEDIAF Guidelines are based on 100 grams of dry matter. With a wet food the analytical results must be adjusted to take account of the moisture (which is water with no

measurable nutritional value). In the sample tested the moisture was measured as 78.5%** so we have based our calculations adjusting with that value.

Many nutrient levels had been reported in units of measurement that differ from the FEDIAF guidelines and required a lot of calculations to convert. That kind of data is of little value to consumers who need values in a readily comparable form, so we have converted them for this table. Note also that some important nutrients were missing in their analysis, as it appears they have conducted an analysis suited to general human nutrition rather than tailored for the specific FEDIAF data. We have indicated these with a red cross. Some are very important for cat health.

What the Stiftung Warentest analysis showed us is that for nutrients that FEDIAF publish recommended minimums, Benevo Duo exceeded every one of them.

We also noted that Stiftung Warentest's own analysis also included a line for 'Verdaulichkeit Rohprotein'. This is the 'Digestibility of Crude Protein' which was scored at 95.2%.

With a Crude Protein level of 38.60g/100g of dry matter this would put the digestible protein at 36.75g/100g of dry matter. More than sufficient for the needs of cats.

For these reasons we were very surprised at the comments made by the Stiftung Warentest journalist.

Calcium and phosphorous levels in our ingredients compared with chicken

The journalist made the assertion that without adding some chicken, the levels of Phosphorus and Calcium would be 'hard to explain'. Actually, it is easy to explain - the ingredients contain these nutrients. We also add Calcium Iodate supplement, which not only supplements the Calcium levels but also provides Iodine.

Phosphorus (per 100g)		Calcium (per 100g)	
Benevo Duo	240 mg	Benevo Duo	360mg
Chicken (raw)	209 mg	Chicken (raw)	10 mg
Chicken (stewed)	204 mg	Chicken (stewed)	13 mg
Brewers Yeast (dry)*	1000 mg	Brewers Yeast (dry)*	250 mg
Oats (dry)	523 mg	Oats (dry)	54 mg
Brown Rice (cooked)	77 mg	Peas (boiled)	42 mg
Peas (boiled)	55 mg	Carrots (boiled)	30 mg
Potato (peeled and boiled)	40 mg	Tomatoes (cooked)	11 mg
Carrots (boiled)	30 mg	Brown Rice (cooked)	10 mg
Tomatoes (cooked)	28 mg	Potato (peel & boiled)	8 mg
Cranberries (raw)	13 mg	Cranberries (raw)	8 mg
Blueberries (raw)	12 mg	Blueberries (raw)	6 mg

Source USDA National Nutrient Database for Standard Reference:
<http://ndb.nal.usda.gov/ndb/search/list> ('Chicken meat' values based on reports 05125 & 05126)
 * <http://www.bioquelle.com/en/products/vitality/conscious-seasoning/>

It should be obvious from this rather simple comparison that the Phosphorus and Calcium levels in Benevo Duo are greater per 100g than *pure chicken*. If we needed to boost either, which we do not, we could add Dicalcium Phosphate, which is vegan and would supplement both.

Some Useful references:

Here are a few sources of information for those who would like to learn more about vegan dogs and cat foods.

The Vegan Society Articles of Association

The Vegan Society of the United Kingdom created the word 'vegan'. They therefore created the original (and in our view, correct) definition of the word. Members are required to accept and abide by this definition.

<http://www.vegansociety.com/pdf/ArticlesofAssociation.pdf>

Obligate Carnivore: Cats, Dogs and what it Really Means to be Vegan

Author: Jed Gillen

Published by Steinhilber Books, 2003

ISBN-10: 0974218006

ISBN-13: 978-0974218007

Vegepets.info

This is a website managed by vegan vets which provides information on vegan diets for cats and dogs and lists scientific research on the subject.

<http://www.vegepets.info>

Letter from the 11th July 2012 from Prof. Dr. Jürgen Zentek of the Faculty of Veterinary Medicine, Institute of Animal Nutrition, Berlin. (In German only)

Professor Zentek sits on the FEDIAF Advisory Board and assisted in producing the 'Nutritional Guidelines for Complete and Complimentary Pet Foods for Cats and Dogs'. In this letter he talks about the use of vegan cat foods and how they can be nutritionally adequate.

<http://www.supercoffee.de/assets/images/Katzenfutter-Uni-Berlin.pdf>

Please Note: Professor Zentek's comments that Benevo's nutrition is 'very limited' is due to the limited information provided by the person writing to the Institute. We were not involved in this discussion or requested to supply additional information. We provide the mandatory declarations on nutrient levels on our products, however there are many vitamins and minerals that are not listed on packs such as B12. We have decided shall provide more detailed listing of nutrients and analysis online in future to assist consumers. While we do not list this information, which for the vast majority of consumers is not actually helpful information for them, you can be assured that we take our legal and moral duty of care to ensure the products are safe very seriously.

ELISA testing kits for detecting horse meat contamination in foods

This commercial product is accompanied with an explanation of the ELISA test and method, which may be of interest to those who are interested in the technique and its limitations.

<http://www.4adi.com/objects/catalog/product/extras/1-hour-Horse-Meat-Adulteration-ELISA-test.pdf>