Other benefits from using Vestkorn textured ingredients

Palatability
Pea ingredients are a good palatable choice for pets, although native pea protein contains some bitter components which can limit the palatability in dog´s pet food. The bitter components are deactivated during Vestkorn´s TVP process, giving an ingredient with improved taste.

Sustainable choice
Pulses have a low carbon footprint, use less fertilizer when grown and require less water than animal protein production. Our process technology for producing TVPs is based on clean label philosophy where no additives or solvents are used during the production. Vestkorn TVPs originates from our dry processed protein concentrates. A dry vs. a wet process also requires less energy and no water during production.

Using peas is a more sustainable option compared to other protein sources and crops.

Declaration and labelling
Produced by air classification and extrusion. According to FEDIAF, Vestkorn textured protein ingredients belongs to the labelling group:

10. Vegetable protein extracts

With the definition of:
All products of vegetable origin in which the proteins have been concentrated by an adequate process to contain at least 50% crude protein, as related to dry matter, and which may be restructured (textured).

Claims
- Sustainable
- Clean label
- Highly digestible plant protein
- Meat-like texture

It is an exciting time for innovation as the humanisation of pet food and treats continues to shape the market. Let the new hot ingredient for your next product developments be Vestkorn Textured protein.

If you are interested in a deeper product insight, please contact our pet food sales team.

Vestkorn is an innovative global supplier of natural and sustainable ingredients from peas and beans. We aspire to make food for the global good, be a preferred choice and offer the best and most innovative pea, chickpea and faba protein solutions ever seen. Good for you and your pet. Good for the planet.

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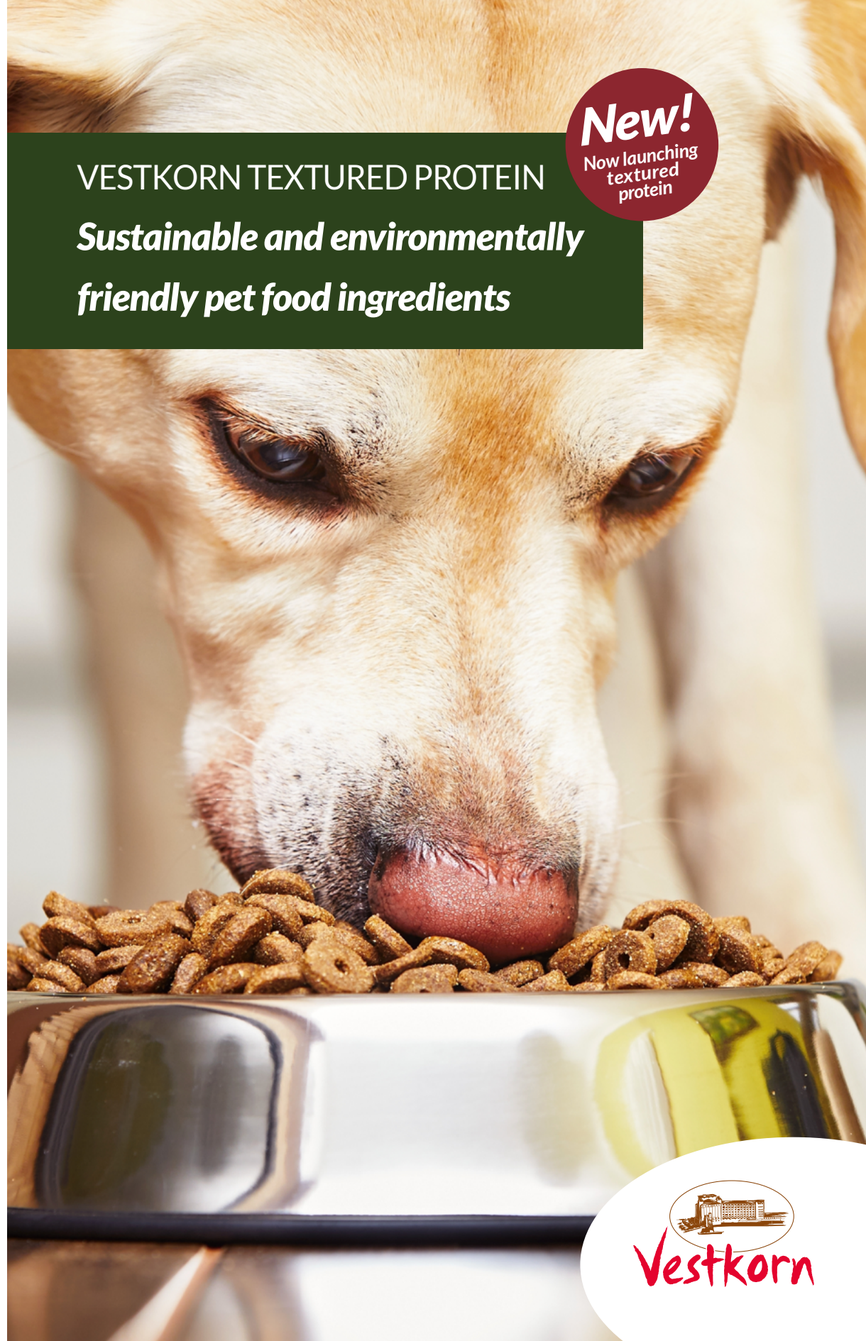

NEW! Vestkorn textured proteins

With more consumers seeking a more plant-based diet, pet owners are also warming up to the idea of using plant ingredients for pets. There's a perception that a plant-based pet diet may have greater health benefits than only using meat, and factors such as sustainability and the welfare of animals used for production of meat are two other main drivers for this trend. The plant-based category appears to be a strong opportunity for dog treats, and wet and dry dog food.

Meat analogues, Textured Vegetable Protein (TVP), are renown in the pet food industry and have been used in a variety of pet food applications, especially in wet pet food. In the past three years, we have seen a significant increase in "allergen-free" textured plant proteins, especially in wet pet food.

There are many TVP products available, some made of one single ingredient while others are based on different recipes and combinations of ingredients and minerals. For all new ingredients in pet food, it is crucial to evaluate its nutritional contribution, technical functionality, final product consistency, health impacts and cost.

Vestkorn TVPs at a glance

Vestkorn – the leading European producer of natural, sustainable, non-GMO ingredients – can offer you TVPs made of pulses. Our peas and faba bean TVPs are available as mince and chunks forms to fulfill various customer needs. The major nutritional difference between Vestkorn Textured protein line P55 and P65 is the protein level, respectively 55% and 65% protein (DM) (Table 1). The protein content can impact the amino acid composition in your final pet food. (Table 2).

During the texturisation process Anti Nutritional Factors (ANF) are deactivated. Some oligosaccharides are to be expected, however, heat label trypsin inhibitors and lectins will be destroyed. The digestibility for heat processed pea protein is 86%*.

Applications in pet food

According to market research the vegan pet food market was valued at US$ 8.668 million in 2020 and is projected to reach US$ 15.651 million by 2028; it is expected to grow at a CAGR of 7.67% during 2020-2028**. We are seeing an increase in products categorised as fully plant-based snacks, dental sticks and complete pet food products.

***marketresearch.com*

Table 1.
Proximate analyses calculated on a dry matter basis.

Proximate composition	Vestkorn Textured protein P5501M (%)	Vestkorn Textured protein P6501M, and P6511C (%)
Crude protein	55	65
Crude fat	5	6
Ash	6	5.5
Crude fiber	2.2	1.5
NFE	31.8	22
Sugar	3.5	1.6
Dietary fibres	16	10

Table 2.
Amino acid composition, values presented in dry matter

Amino acid compostion	P5501M (%)	P6501M/11C (%)
Lysine*	3.99	4.06
Methionine*	0.44	0.44
Methionine+cystine	1.10	1.12
Threonine*	1.97	2.00
Trytophan*	0.52	0.53
Arginine*	5.14	5.23
Histidine*	1.38	1.41
Isoleucine*	2.29	2.33
Leucine*	3.99	4.06
Phenylalaline*	2.72	2.77
Phenyl+Tyrosine	4.39	4.47
Valine*	2.50	2.54
Essential AA	24.93	25.37

**Essential amino acids*

Wet pet food

Texturized plant proteins from peas can be used in wet pet food applications, as their consistency and texture resemble the meat chunks or minced meat in the loaves or meat chunks (Pic. 1 and 2). Vestkorn Textured P55-line will fit well in applications requiring a soft meat texture, the textured P65-line provides a stronger bite.

The retorting process can be shorter when using these ingredients as meat replacers, resulting in less energy use and lower production costs. A lower "F-value" during the retorting process will also have a positive impact on the texture of your final product.

Pressed food

For pressed food products produced at low temperatures, from 60-75°C, native plant proteins and ANF will not be denatured, resulting in lower digestibility and availability of amino acids. This will e.g., effect dogs health by causing weight loss and protein deficiency. Vestkorn TVPs have been processed at higher temperatures resulting in denatured, proteins and ANF, which will increase protein digestibility and amino acid availability (Pic. 3).

Other options like vegan snacks and oven-baked vegetable products are also available, depending on market demand.

Picture 1. Vestkorn´s textured pea protein mince in tapioca and carrot gravy.

Picture 2. Vestkorn´s textured pea protein chunks in banana and carrot gravy.

Application examples

TEXTURED
Vestkorn pea and faba proteins

PRESSED PET FOOD
Inclusion levels up to 20%

WET PET FOOD
Chunks – substituting meat chunks

SNACKS
Inclusion levels depends on the product and process extent

Picture 3.
Pressed dog food.