



HPP of pet food



Gentle – fast - safe

High-pressure processing (HPP) efficiently inactivates pathogen and spoilage microorganisms in raw pet food without using heat or additives. Short non-treatment minimizes loss of enzymes, vitamins, minerals and natural flavours. The HPP allows the safe handling and storage of Biologically Appropriate Raw Food (BARF) products for several weeks without freezing.

The advantages at a glance:



Improved safety – ready-to-eat pet food

The HPP eliminates pathogens present in BARF products containing raw meats, meat by-products and vegetables. The HPP prevents the spreading out of pathogens either in the production or refrigerator of end-consumers. The HPP-BARF products are ready to serve for several weeks without freezing, and also to senior and pets with the weakened immune system.



Minimizes post-contamination risk

Hydrostatic pressure acts uniformly and instantly throughout the product. It prevents product deformation and ensures sophisticated pathogen inactivation. And a big plus: the products are treated in their final packaging so there is no recontamination from e.g. slicing, milling or mixing.



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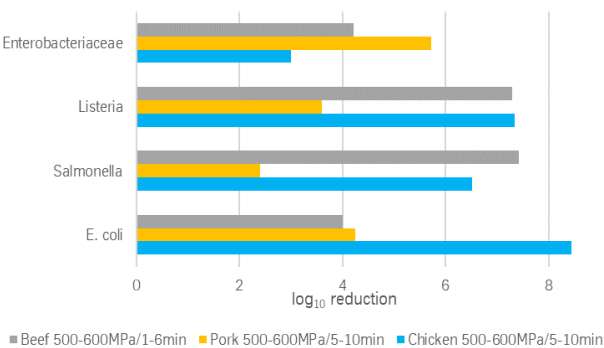
Reducing risk and prolonging shelf life

FDA has a Zero Tolerance Policy for pathogens in pet food. Using high hydrostatic pressure of 400-600 MPa reduces the initial microbial load to the level of acceptable risk.

Parasites and common pathogens such as Listeria, Salmonella and E.coli are being efficiently inactivated in several minutes by using HPP.

HPP extends the shelf life of BARF products to several weeks in cold storage.

Reduction of pathogen in raw meats



Minimal or no effect on enzymes

Naturally occurring enzymes in pet food like Alkaline Phosphatase, Lipase, Catalase, Peroxidase, Xanthin Oxidase or Acid Phosphatase stay largely intact not or are minimally affected by commercially applied pressures and holding times.

Besides HPP process conditions, the effect on enzymes depends on other factors like product parameters (pH, antioxidant content) or production prior to HPP-treatment.



High added value products

Quality

Pressure does not affect the covalent bonds, so that the nutrients and original flavor of the meat are retained.

High-pressure treatment of BARF causes structural changes in proteins but not the chemical composition and the “raw-like” taste of the recipes.

Applying a short holding time of 3-6min is recommended for the highest productivity, minimal enzyme loss and risk of triggering lipid oxidation.

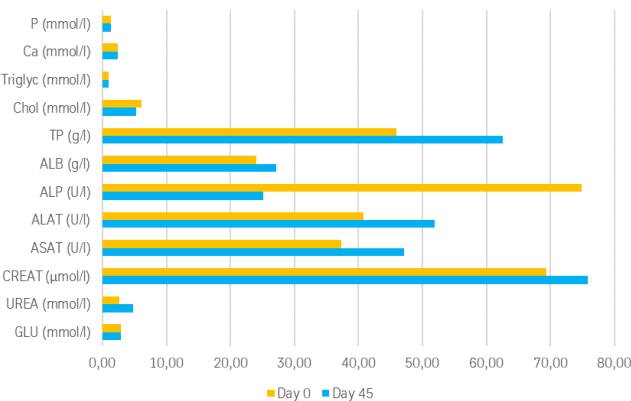
HPP works well with vacuum or MAP-packed meat.



Innovation

Recent studies point that feeding dogs HPP-BARF gives positive results on protein (TP) and lipid metabolism (Chol, Triglyc). Despite the higher values of UREA and ALB from serum biochemistry, indicators remain within the reference range.

Biochemistry of dogs fed by HPP-BARF based on chicken



Neshovska, Tradit. mod. vet. med. 6 (2021) 49

