

TECHNOLOGICAL BENEFITS OF SPRAY DRIED ANIMAL PLASMA IN FISH-BASED CHUNKS FOR CANNED PET FOOD

COMPANION



Fish and fish by-products are excellent sources of high-quality protein for cats and dogs. However, the handling, processing, and storage of raw materials can increase variation and negatively impact their technological properties.

This study evaluated the use of spray dried animal plasma (SDAP) as a binder in fish by-products recipes for chunks in gravy. The results demonstrate that SDAP inclusion in recipes significantly improved the consistency (hardness), elasticity (springiness), cohesiveness, chewiness, and juiciness of the final wet products.

These improvements were observed in a chunk recipe with a 35% content of mixed salmon and tuna by-products (Experiment 1), and another recipe with chunks having a final content of a 4% salmon by-product (Experiment 2). There was a positive linear effect of increased SDAP inclusion in the recipes for most of the technological parameters measured such as elasticity, flexibility, juiciness, and hardness.

Our findings indicate that SDAP is an excellent nutritional binder that can enhance the final technological properties of wet pet food products using high-quality fish recipes and potentially in recipes containing protein-rich fish by-products with low functionality.



PLASMA PROVIDES A POSITIVE LINEAR EFFECT ON ELASTICITY, FLEXIBILITY, JUICINESS AND HARDNESS IN FISH BY-PRODUCT RECIPES.

BOTTOM LINE

HARDNESS



SPRINGINESS



COHESIVENESS



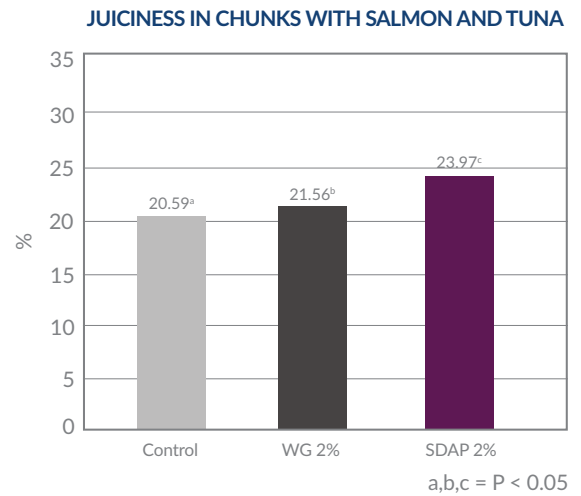
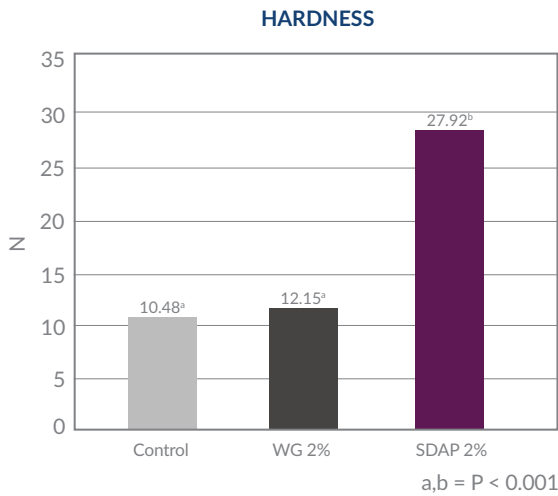
CHEWINESS



JUICINESS

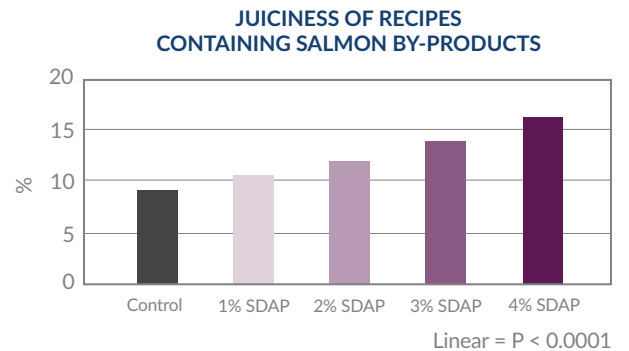
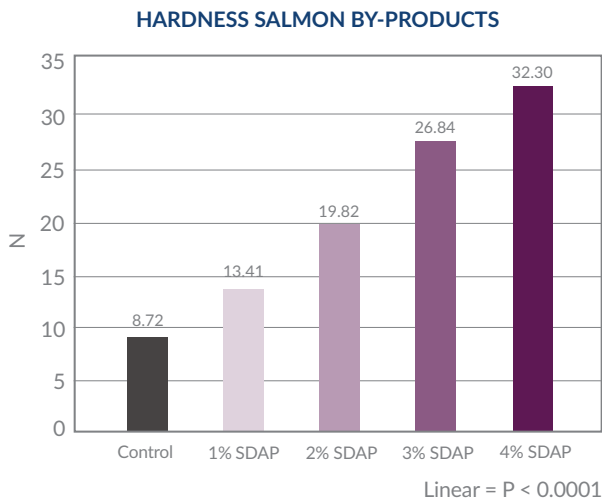


EXPERIMENT 1. PLASMA EFFECT ON FISH CHUNKS



2% SDAP had a greater impact of increasing hardness and juiciness compared to 2% WG.

EXPERIMENT 2. PLASMA EFFECT ON FISH CHUNKS



Increasing levels of SDAP linearly increased hardness and juiciness of the chunks containing salmon by-products.

For more detailed information, contact one of our pet experts.



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