

RESEARCH BRIEF

COMPANION



PROOF OF CONCEPT: LICKABLE PET PRODUCT TEXTURE CONTAINING SPRAY DRIED PLASMA PRODUCTS

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BACKGROUND INFORMATION

Lickable products for companion animals are becoming widely used for various reasons such as food supplements, treats, functional treats, toppers, and enhancing the human animal bond. Texture and consistency of the product along with palatability are important for product acceptance and quality. Multiple meat ingredient sources and various starches or binders, help to produce these products with the desired texture and palatability. Alternative ingredients to enhance or maintain texture, palatability, or consistency may be useful for lickable products. Spray dried plasma (SDP) or Cravings (hydrolyzed plasma) are high protein ingredients utilized in pet food for functional texture properties, enhancing palatability, and maintaining product consistency.

STUDY OBJECTIVE

The study objective was to evaluate texture when including SDP or Cravings into lickable products with various ingredient matrix.



EXPERIMENTAL PROCEDURE

Two studies were conducted. Study one was a proof of concept to evaluate texture when varying starch and meat levels compared to SDP with salmon MDM. Study two utilizing chicken MDM evaluated inclusion of 1% SDP and Cravings on texture compared to 1% chicken stock.

Lickable products were blended in a Robot Coupe 8L mixer mixing the respective meat source with the other dry and liquid ingredients. After mixing, pouches were filled and retorted at 121 °C for 1 hour. For study two, two replicate batches of each formula were completed for analysis.

Texture was measured on a TA.XT Plus utilizing plunger into product for study one for hardness and into a cap filled with product to determine firmness and viscosity consistency for study two. Viscosity in study one was completed using a viscometer. Visual evaluation was also conducted for visual acceptance and handling characteristics. Four pouches per treatment were analyzed for texture from each replicate batch. Moisture and protein of formulas were also measured.

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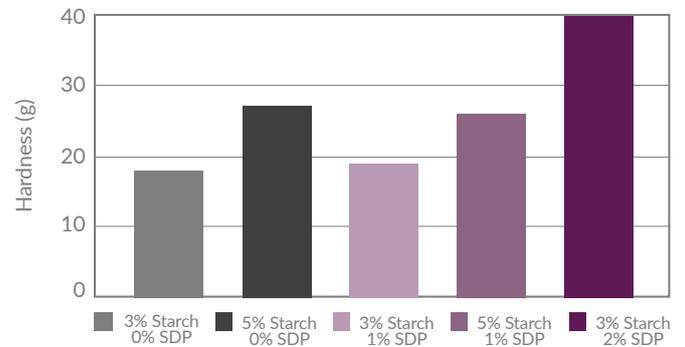
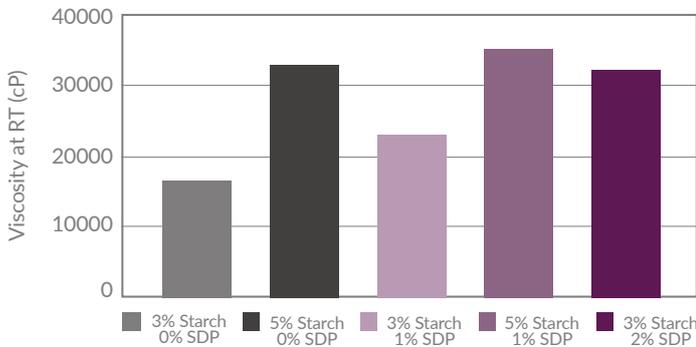
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PROOF OF CONCEPT: TEST FORMULA

	3% Tapioca	5% Tapioca	3% Tapioca 1% SDP	5% Tapioca 1% SDP	3% Tapioca 2% SDP
Cooked Salmon	32	30	31	29	30
Tapioca Starch	3	5	3	5	3
SDP	0	0	1	1	2
Guar Gum	0.25	0.25	0.25	0.25	0.25
Water	64.75	64.75	64.75	64.75	64.75
Sum	100	100	100	100	100

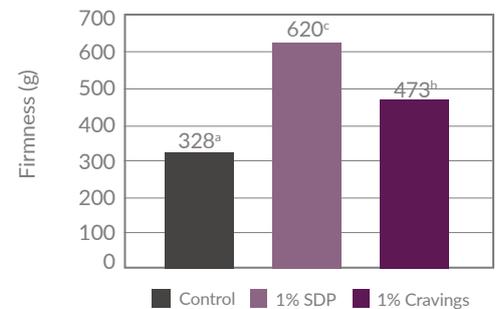
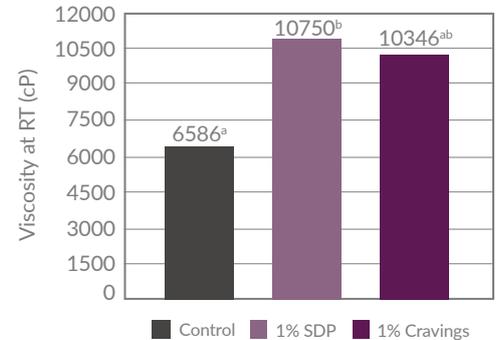
STUDY ONE: RESULTS



PROOF OF CONCEPT: TEST FORMULA

	Control	SDP	Cravings
Cooked Chicken	29	29	29
Chicken Stock	1	0	0
SDP	0	1	0
Cravings	0	0	1
Tapioca Starch	5	5	5
Guar Gum	0.25	0.25	0.25
Water	64.25	64.25	64.25
Salt	0.5	0.5	0.5
Sum	100	100	100

STUDY TWO: RESULTS



a,b = P < 0.05

SUMMARY

Depending on product characteristic goals, target protein content, and other ingredients, SDP or Cravings may be an alternative for product texture ranging from 1-2% to produce a quality product.



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