

# RESEARCH BRIEF

COMPANION



## PROOF OF CONCEPT: EVALUATE USE OF SPRAY DRIED PLASMA (SDP) AND CRAVINGS IN GRAVY RECIPES TO PRODUCE THE MOST DESIRABLE PRODUCT

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### BACKGROUND INFORMATION

For many decades, spray dried plasma has been used in wet pet food by adding it to the meat slurry to improve water holding capacity, emulsification, and digestibility of final product. Spray dried plasma and hydrolyzed proteins enhance palatability of pet products and may also further improve palatability of the gravy.

### STUDY OBJECTIVE

Evaluate if spray dried plasma incorporated into the gravy blend can enhance palatability and produce a desirable chunk and gravy product.

### EXPERIMENTAL PROCEDURE

An initial experiment was completed to determine if replacing the stock portion of the gravy with SDP could still produce a fluid type gravy. Test formulas included a control of pork stock, 0.8% SDP replacing pork stock on an equal inclusion basis or 50:50 and finally using 0.8% Cravings, a hydrolyzed porcine protein, to replace the pork stock. Chunks and gravy were produced at a 30:70 ratio. Viscosity, gravy absorption, and visual color were evaluated.

With the success of the initial experiment, another evaluation using 0.8% SDP or Cravings to replace control of poultry broth in gravy was initiated for palatability testing. Gravy composition was similar between all treatments. Chunks (not containing SDP) and gravy at a 50:50 ratio were manufactured for both dog and cat. Palatability studies were completed using either 30 dogs or cats in two day split bowl tests.

FIGURE 1. PRODUCT COMPARISON



FIGURE 2. DOG CHUNKS & GRAVY



FIGURE 3. CAT CHUNKS & GRAVY

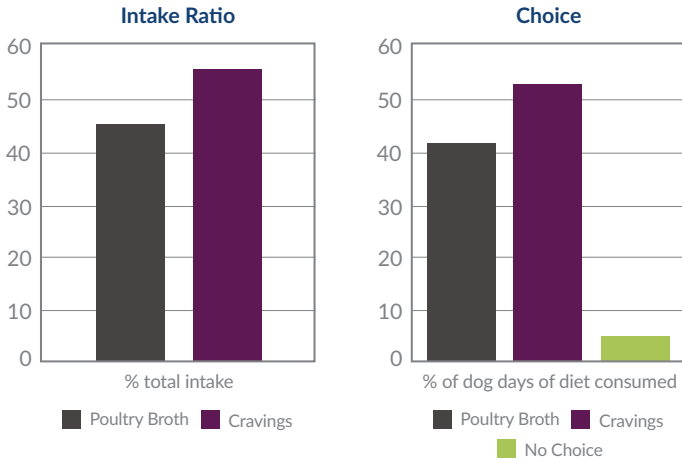




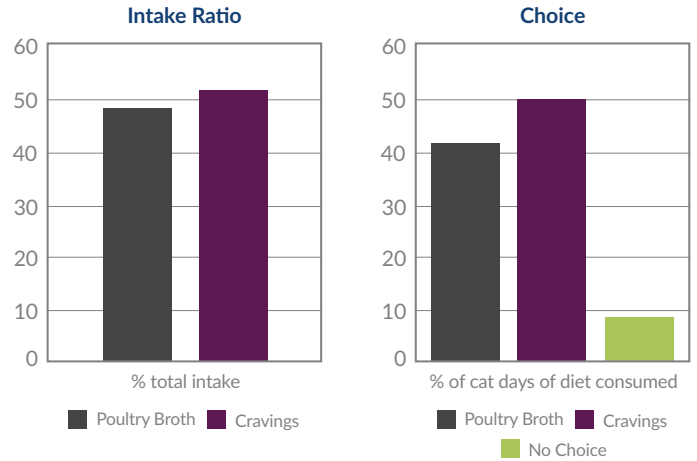
## RESULTS AND CONCLUSIONS

All gravy formulas were fluid in the initial study. The SDP gravy was darker and had a meatier color compared to the others that were translucent (Figure 1). The second study resulted in fluid gravies and again meatier color for SDP compared to control and Cravings (Figures 2 and 3). Palatability in both dogs and cats was higher with SDP and Cravings compared to poultry broth. In summary, SDP or Cravings can be used to replace stocks and broths in chunks and gravy recipes.

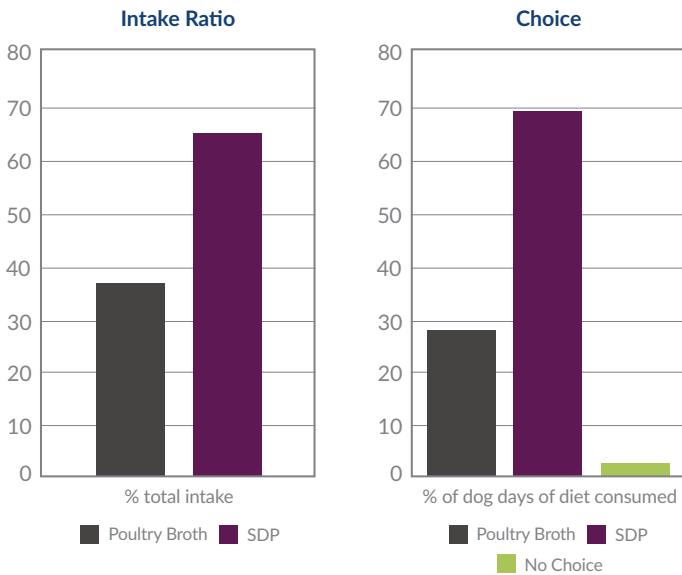
**0.8% POULTRY BROTH VS 0.8% CRAVINGS IN GRAVY: DOG TRIAL, 30 DOGS, TWO-DAY TRIAL**



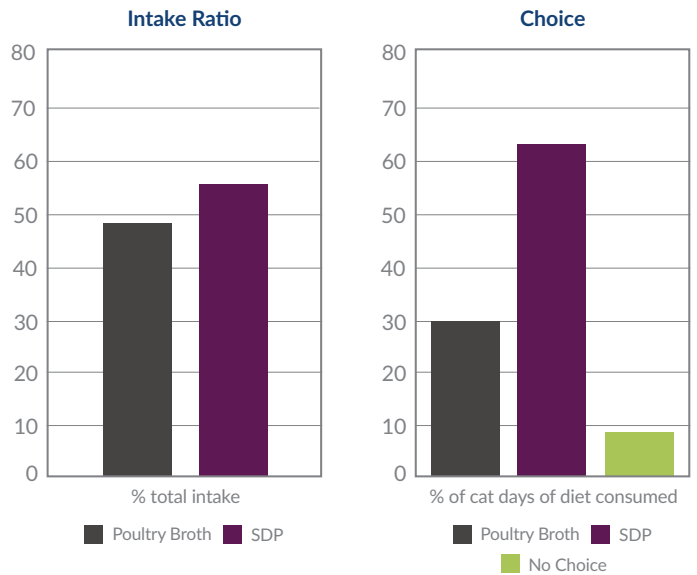
**0.8% POULTRY BROTH VS 0.8% CRAVINGS IN GRAVY: CAT TRIAL, 30 CATS, TWO-DAY TRIAL**



**0.8% POULTRY BROTH VS 0.8% SDP IN GRAVY: DOG TRIAL, 30 DOGS, TWO-DAY TRIAL**



**0.8% POULTRY BROTH VS 0.8% SDP IN GRAVY: CAT TRIAL, 30 CATS, TWO-DAY TRIAL**



*Spray Dried Plasma and Cravings help make meatier colored gravy and increase palatability for dogs and cats.*