Introduction

This application note describes the general results when measuring in process petfood kibbles using for the Phoenix NIR Analyzers.

Method

All samples were run on a Phoenix Series NIR Analyzer and calibrations were developed using Alligator Calibration software.

All samples were analyzed as ground kibbles. All samples were mixed well before analyzing. Samples should be taking the product flow as it leaves the dryer. Samples should be cooled to room temperature before scanning.

The large rotating cup was used for analysis. Sample cup was ½ filled with lid.

Results

Samples were collected from many locations around the world and include many different types of Petfood brands.

All results are on as-is basis.

Definitions

# of Samples: Total number of samples for each constituent.

Range: Constituent range in the calibration

R^2: Correlation coefficient is the agreement between the wet chemistry and NIR results. Correlation is dependent on lab accuracy and constituent range.

SECV: Cross Validation Error of the calibration. This value is approximately what can be expected when using the calibration for routine analysis.

Constituent	# of Samples	Range	R^2	SECV
Protein	440	12.5 – 47.5	0.986	0.77
Moisture	612	4.5 - 17	0.978	0.33
Fat	320	3 - 14	0.985	0.29

PROTEIN

MOISTURE

FAT