

Table 1. Analyzed composition of select macro- and micronutrients in test foods formulated using different ingredient strategies.

Nutrient	Grain-Free + Peas & Potatoes	Grains + Peas & Pea Fiber	Grains + No Peas or Potatoes	Grain-Free + Potatoes
Calories, kcal/kg	3894	3697	3770	3850
Protein, %	23.3	25.0	22.5	22.0
Fat, %	15.1	17.2	13.2	12.6
Ash, %	5.3	5.0	5.2	5.1
Total Dietary Fiber, %	7.8	15.1	10.0	7.4
Calcium, %	0.99	1.00	0.91	0.97
Phosphorus, %	0.70	0.71	0.66	0.71

Table 2. Antinutritional factors (ANF) measured in finished test foods formulated using different ingredient strategies. Any ANF not listed were not measured in the raw ingredients nor the finished test foods.

Antinutritional Factor ¹	Grain-Free + Peas & Potatoes	Grains + Peas & Pea Fiber	Grains + No Peas or Potatoes	Grain-Free + Potatoes
Condensed Tannin, % (dl < 0.05)	ND	ND	ND	ND
Glycosinolates Total, $\mu\text{mol/g}$ (dl < 0.05)	ND	ND	ND	ND
Daidzin, % (dl < 0.001)	ND	ND	0.006	ND
Genistin, % (dl < 0.001)	ND	ND	0.009	ND
Isoflavones Total, % (dl < 0.001)	ND	0.001	0.020	ND
Phytic Acid, % (dl < 0.14)	0.49	0.65	0.76	ND
Trypsin Inhibitor, TIU/g (dl < 1000)	1300	1200	1700	1300

ND = non-detectable; below detection limits (< dl)

¹ANF measured: Tannin, lectin, 4-hydroxyglucobrassicin, epiprogoitrin, total glycosinolates, glucoalyssin, glucobrassicanapin, glucobrassicin, glucoerucin, glucoiberin, gluconapin, gluconapoleiferin, gluconasturtiin, glucoraphanin, glucotropaeolin, neoglucobrassicin, progoitrin, sinalbin, free gossypol, total gossypol, daidzein, daidzin, genistein, genistin, glycinein, glycinin, phytic acid, acetyl daidzin, acetyl genistin, acetyl glycinein, biochanin A, biochanin B, daidzein, daidzin, genistein, genistin, glycinein, glycinin, total isoflavones, puerarin, trypsin inhibitor

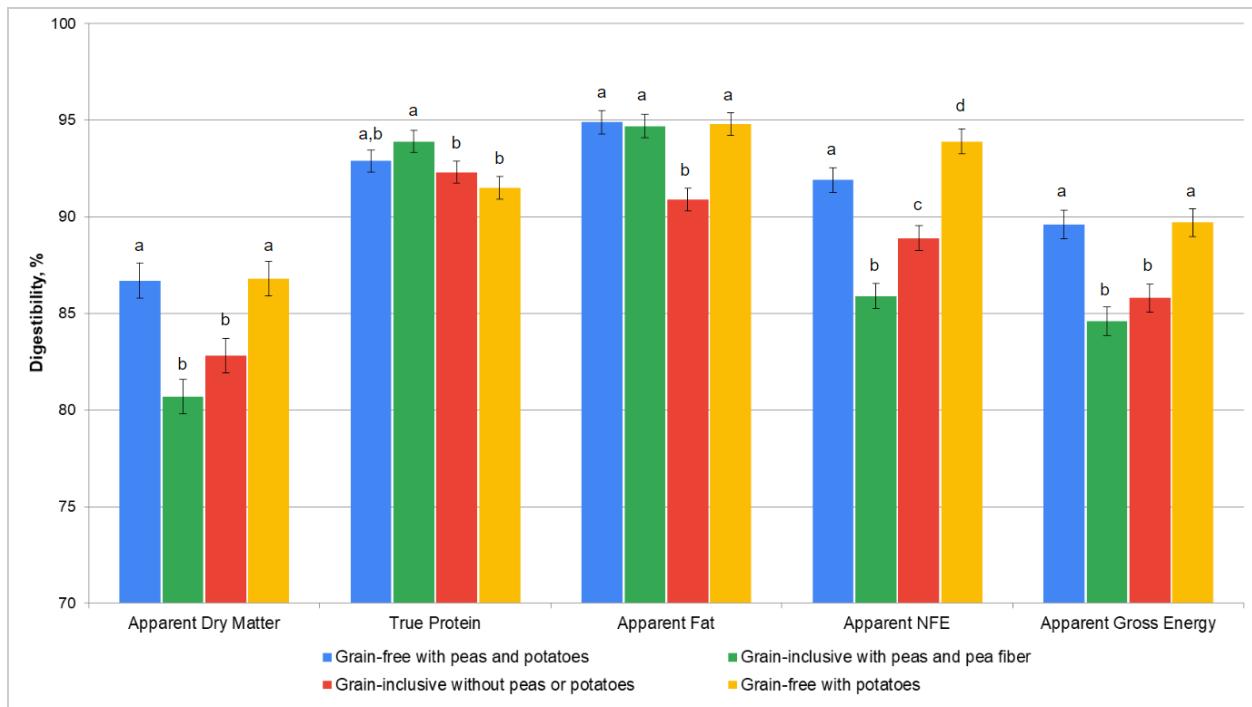


Figure 1. Apparent and true macronutrient digestibility of test foods formulated using different ingredient strategies. Within each macronutrient digestibility group, bars with different letters differ at $P < 0.05$. Error bars represent the standard error of the treatment mean (SEM).