

The New AAFCO Dog & Cat Food Nutrient Profiles: Are you ready?

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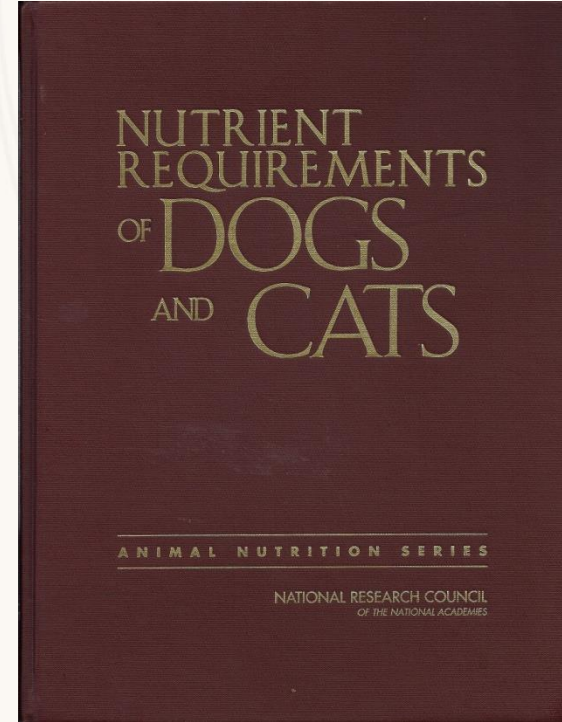
History

- AAFCO Dog and Cat Food Nutrient Profiles developed in early 1990's to replace outmoded NRC recommendations.
- Minor revisions in 1995, no further changes for decades



History (cont'd)

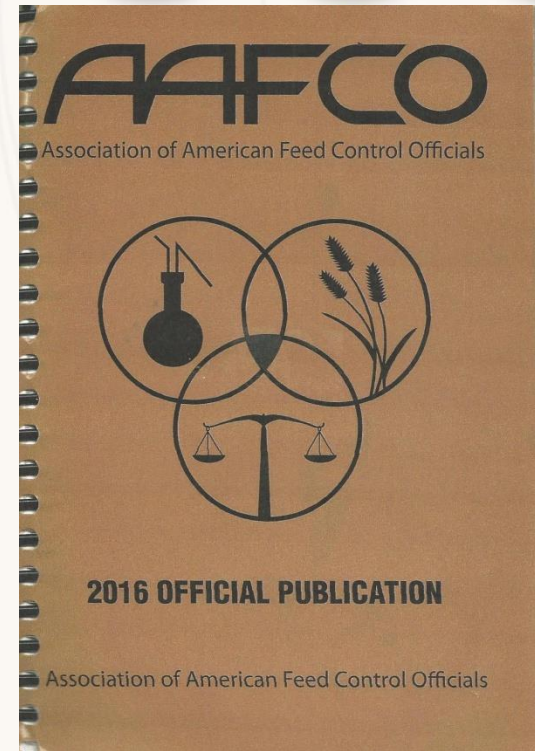
- NRC published revised recommendations in 2006
- In 2007, AAFCO formed new expert panel to review and update Profiles
- Revised Profiles published in 2016 AAFCO Official Publication





CAUTION!!!

- Print version of AAFCO 2016 Official Publication contains multiple errors!
- Incorrect values, other mistakes
- Online version of OP reportedly corrected





What's changed?

- DM tables presume caloric density of 4000 kcal ME/kg DM for both dog and cat foods (dog foods used to be 3500)
- Anything above 4000 (dog or cat food) must be corrected for energy density

Dog DM changes



Nutrient	G&R minimum	Maint minimum	Maximum
Crude protein	↑	↔	na
Arginine	↑	↔	na
Histidine	↑	↑	na
Isoleucine	↑	↑	na
Leucine	↑	↑	na
Lysine	↑	↔	na
Methionine	NEW	NEW	na
Methionine-cystine	↑	↑	na
Phenylalanine	NEW	NEW	na
Phenylalanine-tyrosine	↑	↑	na
Threonine	↑	↔	na
Tryptophan	↔	↔	na
Valine	↑	↑	na

Dog DM changes



Nutrient	G&R minimum	Maint minimum	Maximum
Crude fat	↑	↑	na
Linoleic acid (LA)	↑	↑	na
Alpha Linolenic acid (ALA)	NEW	NEW (but ND)	na
Arachidonic acid (AA)	na	na	na
Eicosapentaenoic acid/ Docosahexaenoic acid (EPA/DHA)	NEW	NEW (but ND)	na
(LA+AA):(ALA+EPA+DHA) ratio	na	na	NEW

Dog DM changes



Nutrient	G&R minimum	Maint minimum	Maximum
Calcium	↑	↓	↓ for G (LB only)
Phosphorus	↑	↓	↔
Ca:P ratio	↔	↔	↔
Potassium	↔	↔	na
Sodium	↔	↑	na
Chloride	↔	↑	na
Magnesium	↑	↑	DELETED
Iron	↑	↓	DELETED
Copper	↑	↔	DELETED
Manganese	↑	↔	na
Zinc	↓	↓	DELETED
Iodine	↓	↓	↓
Selenium	↑	↑	↔

Dog DM changes



Nutrient	G&R minimum	Maint minimum	Maximum
Vitamin A	↔	↔	↔
Vitamin D	↔	↔	↓
Vitamin E	↔	↔	DELETED
Vitamin K	na	na	na
Thiamine	↑	↑	na
Riboflavin	↑	↑	na
Pantothenic acid	↑	↑	na
Niacin	↑	↑	na
Pyridoxine	↑	↑	na
Folic acid	↑	↑	na
Vitamin B12	↑	↑	na
Choline	↑	↑	na
Taurine	na	na	na

Cat DM changes



Nutrient	G&R minimum	Maint minimum	Maximum
Crude protein	↔	↔	na
Arginine	↓	↔	na
Histidine	↑	↔	na
Isoleucine	↑	↔	na
Leucine	↑	↓	na
Lysine	↔	↔	na
Methionine	↔	↓	↔
Methionine-cystine	↔	↓	na
Phenylalanine	↑	↔	na
Phenylalanine-tyrosine	↑	↑	na
Threonine	↔	↔	na
Tryptophan	↔	↔	NEW
Valine	↑	↔	na

Cat DM changes



Nutrient	G&R minimum	Maint minimum	Maximum
Crude fat	↔	↔	na
Linoleic acid (LA)	↑	↑	na
Alpha Linolenic acid (ALA)	NEW	NEW (but ND)	na
Arachidonic acid (AA)	↔	↔	na
Eicosapentaenoic acid/ Docosahexaenoic acid (EPA/DHA)	NEW	NEW (but ND)	na
(LA+AA):(ALA+EPA +DHA) ratio	na	na	na

Cat DM changes



Nutrient	G&R minimum	Maint minimum	Maximum
Calcium	↔	↔	na
Phosphorus	↔	↔	na
Ca:P ratio	na	na	na
Potassium	↔	↔	na
Sodium	↔	↔	na
Chloride	↔	↔	na
Magnesium	↔	↔	na
Iron	↔	↔	na
Copper	↔ (ext) ↑ (can)	↔	na
Manganese	↑	↑	na
Zinc	↔	↔	DELETED
Iodine	↑	↑	NEW
Selenium	↑	↑	na

Cat DM changes



Nutrient	G&R minimum	Maint minimum	Maximum
Vitamin A	↓	↓	↓
Vitamin D	↓	↓	↑
Vitamin E	↑	↑	na
Vitamin K	↔	↔	na
Thiamine	↑	↑	na
Riboflavin	↔	↔	na
Pantothenic acid	↑	↑	na
Niacin	↔	↔	na
Pyridoxine	↔	↔	na
Folic acid	↔	↔	na
Vitamin B12	↔	↔	na
Choline	↔	↔	na
Taurine	↔	↔	na



Which table do I use?

- ≤ 4000 kcal ME/kg DM – dry matter table
- > 4000 kcal ME/kg DM – per 1000 kcal table



When can't I use the Profiles?

- Not reliable for “low energy density” diets (low calorie criteria?)
- Dog food – reproduction, all life stages
- Cat food – growth, reproduction, all life stages
- Must establish nutritional adequacy by other means



Nutritional adequacy statement

- Cat foods – no changes
- Dog foods
 - Maintenance – no changes
 - If intended for “growth” or “all life stages,” must add either:
 - “...including growth of large size dogs (70 lbs. or more as an adult)”
[if $\leq 1.8\%$ Ca DM] or
 - “...except for growth of large size dogs (70 lbs. or more as an adult)”
[if $> 1.8\%$ Ca DM (but still $\leq 2.5\%$)]



“Complete and Balanced” claims

- Unqualified claims based on Profiles – Statement **MUST** read “**___ is formulated to meet the AAFCO Dog Food Nutrient Profiles for all life stages, including growth of large size dogs (70 lbs. or more as an adult)**”
- Otherwise, claims must be qualified, e.g., “for adults,” “for small breed puppies”



Guaranteed analysis

- Because ALA, DHA, EPA now “essential,” they do NOT go down at bottom of guarantees with asterisk/disclaimer
- They must go in order of the profiles, i.e.,
 - after moisture (or ash, if present)
 - after any EAA guarantees
 - BEFORE any essential mineral or vitamin guarantees
- Same format/placement as already for linoleic acid



GA (cont'd)

- “Omega-3 fatty acids” and “omega-6 fatty acids” still are NOT “essential”
- Must be guaranteed after all essential nutrients, with asterisk and disclaimer



Example

GUARANTEED ANALYSIS

Crude Protein (min)	25%
Crude Fat (min)	15%
Crude Fiber (max)	6%
Moisture (max)	10%
Lysine (min)	1.0%
Docosahexaenoic Acid (DHA) (min)	0.1%
Calcium (min)	1.4%
Vitamin E (min)	150 IU/kg
*Ascorbic Acid (Vitamin C) (min)	100 mg/kg
*Omega-3 Fatty Acids (min)	0.3%

*Not recognized as an essential nutrient by the AAFCO Dog Food Nutrient Profiles



Implementation

- Products in market before Jan 2016 have two years to implement changes to formulas and labeling.
- New products have until the end of 2016 to bring into full compliance!



Conclusions

- Many products may have to be reformulated to conform to new requirements
- For dog foods intended for “all life stages” or “growth,” the nutritional adequacy statement must be revised
- All products must be in compliance by Jan 2018

Questions?

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