Cat Food Fat: Calculating Dry Matter Basis

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After helping her tom cat, Motts, to lose 2 lbs, Kelli vowed to keep him slim. She needed a low-fat diet that would also satisfy Motts' fussy palate. Kelli looked at our Adult Dry Lite Cat Food and saw it contains more fat (9%) than our canned Chicken Stew with Sweet Potatoes (which only has 4% fat). The lower-fat canned food seemed an obvious choice. But how could that be - the Adult Dry was Lite?!

The Guaranteed Analysis on pet food labels lists the percentage of nutrients for food as it is fed, not as it would be when the water is removed. To determine dry matter basis, you must determine the nutrient levels after the moisture has been removed. This only requires simple math. Canned foods can have up to 80% moisture; dry foods can have as little as 6%. Calculating nutrients on a dry matter basis shows you how much fat (or protein, or fiber) your cat actually receives per serving.

Kelli compared our Country Classic Chicken Stew to our Adult Dry Lite cat food:

from Guaranteed Analysis	Chicken Stew (Canned Food)	Adult Lite (Dry Food)
% Crude Protein (min)	9.0%	30.0%
% Crude Fat (min)	4.0%	9.0%
% Crude Fiber (max)	1.0%	6.0%
% Moisture (max)	82.0%	10.0%
calculated		
% dry matter	18.0%	90.0%
Actual % Fat	22.0%	10.0%

The stew has 82% moisture. Subtracting the amount of moisture (82%) from the whole (100%) leaves 18% dry matter. Next, divide the 4% fat by 18% dry matter. The resulting 22% indicates that this food has 22% fat after the water has been removed.

By contrast, the dry food has 10% moisture and 90% dry matter. Dividing the 9% fat by the 90% dry matter results in 10% fat on a dry matter basis.

Based on her calculations, Kelli selected the dry food (with half the actual fat of the canned food) as Motts' regular diet.