Making a Protein Claim on a Food Product

Introduction

Launching a new food product in today's market means navigating a landscape where consumers are more label-conscious than ever. Among the claims that can make a product stand out, "high in protein" or "good source of protein" hold strong appeal—particularly as health, wellness, and functional nutrition trends continue to shape purchasing decisions. For food entrepreneurs, this is not just a marketing opportunity; it is a strategic tool that can position a product as relevant, premium, and aligned with customer desires. For small food businesses, understanding the requirements associated with making these claims can save time, money, and potential rework. It can also help ensure that the claim delivers real value to consumers, building trust while differentiating your product in a competitive marketplace.

Protein Claim Requirements

Making an on-package protein claim is not as easy as simply adding the language to your package label. In the United States, the Food and Drug Administration (FDA) regulates protein content claims, and the claims must follow specific guidelines to ensure accuracy and compliance. These rules do not just consider the protein content (number of grams per serving), but also the protein quality. Without meeting these criteria, a protein claim could be misleading and potentially result in regulatory action.

To make any "front of pack" protein claim, (including "High in Protein," "Good Source of Protein," or simply a statement of the number of grams of protein), the brand must first calculate the percent Daily Value (%DV) on the nutrition label.

To calculate the %DV of protein on a nutrition label, a brand must have two data points specific to their product:[1,2,3]

1. **Protein content:** the number of grams of protein per serving
2. **Protein quality:** the fractional Protein Digestibility-Corrected Amino Acid Score (PDCAAS) of the protein ingredient(s)

While the protein content is simply an accounting of all the protein sources within a given product formulation, calculating the Protein Digestibility-Corrected Amino Acid Score (PDCAAS) is not as straightforward. The PDCAAS is the FDA's preferred method for measuring protein quality, or, in other words, how well the protein a person consumes can be used by the body. This is based on the amino acid profile (the essential amino acids a human body cannot make on its own) and digestibility (how much of that protein the human body can break down and absorb).

In simple terms, scientists measure the amino acids in the protein and compare them to a standard "ideal" amino acid profile for human nutrition. They then assess digestibility, often using lab models, to see how much of the protein the body absorbs. The result is a score between 0 and 1.0, with 1.0 being the highest quality – meaning the protein has all the essential amino acids in the right amounts and is highly digestible.

For protein blends, PDCAAS is measured based on the total amino acid profile and digestibility of the "final mix," not just the individual ingredients. This means combining two proteins with different amino acid compositions (for example, pea and rice) can raise the overall score if they complement each other's weaknesses.

Calculating the Percent Daily Value for a Protein Claim

Calculating %DV is relatively easy, once the PDCAAS and FDA Recommended Daily Values are known.[2] To determine the PDCAAS of a product, brands will need to work with a private food testing or university-based nutrition lab to run an amino acid analysis on the protein source and apply a digestibility factor that may or may not be already known. If the digestibility factor is not known, the lab will need to conduct an expensive and time-consuming animal feeding study to determine the digestibility factor. For this reason, it is best to utilize a well-known protein source, whereby the protein digestibility factor is published in peer-reviewed scientific journals, or from an ingredient supplier that already has this data. FDA Recommended Daily Values (DRVs) are located in the FDA's Code of Federal Regulations (21 CFR 101 Section 7.iii).[3]

%DV = (Actual grams of Protein)*(PDCAAS) / (FDA Recommended Daily Value (DRV))

Example: Your pea protein granola bar contains 10 g of protein with a PDCAAS of 0.8. The DRV for an adult is 50 grams of protein.[3]

%DV = (10)*(0.8) / 50 = 16%.

Figure 1
Example Nutrition Label for a hypothetical bar product made from 10 g of pea protein with a PDCAAS = 0.80.

Nutrition Facts

1 servings per container

Serving size	**1 bar (50g)**
Amount Per Serving	
Calories	**250**
	% Daily Value*
Total Fat 10g	**13%**
Saturated Fat 2g	**10%**
Trans Fat 0g	
Cholesterol 10mg	**3%**
Sodium 50mg	**2%**
Total Carbohydrate 35g	**13%**
Dietary Fiber 5g	**18%**
Total Sugars 12g	
Includes 8g Added Sugars	**16%**
Protein 10g	**16%**

Not a significant source of vitamin D, calcium, iron, and potassium

*The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

Determination of the Appropriate Protein Claim

The Recommended Daily Value (DRV) changes by nutrient and consumer age. For protein, the Code of Federal Regulations (21 CFR 101 Section 7.iii) contains these values.

"For the purpose of labeling with a percent of the DRV or RDI (Recommended Daily Intake), a value of 50 grams of protein shall be the DRV for adults and children 4 or more years of age, a value of 11 grams of protein shall be the RDI for infants through 12 months, a value of 13 grams shall be the DRV for children 1 through 3 years of age, and a value of 71 grams of protein shall be the RDI for pregnant women and lactating women."[3]

Nutrient content claims such as "High in Protein," "Good Source of Protein," or "More Protein than..." are based on the %DV of the corrected protein content. Thus, protein quantity as well as quality are crucial to making a claim. Possible claims based on %DV are included in the Code of Federal Regulations 21 CFR 101.54[4] and in the FDA's Food Labeling Guide, in the Q&A, Section 8, question N19.[5] Table 1 summarizes these claims.

TABLE 1. PROTEIN CLAIMS AND THEIR THRESHOLDS.

FRONT OF PACK CLAIM	THRESHOLD CONDITIONS
"X g protein per serving"	Must match Nutrition Facts and use correct serving size[5]
"High in Protein"	≥ 20% DV (≥ 10 g) per RACC (Reference Amount Customarily Consumed)[4]
"Good Source of Protein"	10–19% DV (~5–9.5 g) per RACC (Reference Amount Customarily Consumed)[4]
"More Protein (than...)"	≥ 10% more DV than a stated reference; must include comparative details[4]

Note that it is important to base the claim on the RACC or Reference Amount Customarily Consumed for the food. For example, if your nutrition bar is 60 grams but the RACC is 50 grams, any claim must be based on 50 grams and not the actual weight of the bar.[5]

Contact AURI for guidance in calculating the protein content of your food product and any possible claim language.

References

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