OILSEED BY-PRODUCTS AS ALTERNATIVE PROTEIN SOURCES IN ANIMAL AND POULTRY NUTRITION

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Abstract

This review aims to comparatively evaluate soybean, sunflower, rapeseed and hempseed meals as protein sources for animal and poultry nutrition. A comparative analysis of published data was conducted focusing on proximate composition, protein and amino acid profiles, fibre content, energy value, digestibility and major antinutritional factors. The reviewed evidence indicates that soybean meal has the most favorable overall protein quality, whereas sunflower and rapeseed meals provide valuable alternatives but are constrained by higher fibre levels and specific nutritional limitations. Hempseed meal shows potential as an alternative protein ingredient, although its nutritional value and practical application require further evaluation. Differences among oilseed meals are associated with crop characteristics and processing conditions.

The review highlights the comparative nutritional advantages and limitations of these four meals and provides a basis for their more appropriate use in animal and poultry diets according to species requirements and dietary formulation.

Key words: *soybean meal; sunflower meal; rapeseed meal; hempseed meal; animal nutrition*