

THE POTENTIAL OF NATIVE RAW MATERIALS IN THE ANIMAL NUTRITION AND ITS EFFECTS ON THE PRODUCTION QUALITY: A review

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Abstract. Cereal and legume grains are major sources of proteins for humans and form the basis of livestock feeds. However, individually these crops cannot supply the full complement of essential amino acids, lipids and fatty acids, minerals and vitamins. Legume grains can fix nitrogen from the atmosphere, fertilizing the soil for other plants tolerant of infertile soils and capable of pioneering change in barren and poor quality soils. Legume seeds contains from 25 to 48 % crude protein in dry matter, cereals from 10 to 15 %, which depends on the species, genotype and climatic conditions.

The composition of the cereal and legume seeds and especially the protein content makes them highly suitable for livestock diets. However, the presence of diverse compounds in cereal and legume grains, commonly referred to as anti-nutritional factors, that both decrease nutritive value of grains and, if taken in larger amounts, cause health problems that may be fatal for both human and the animals. Different strategies (processing methods, enzymes) have been used to reduce or eliminate the anti-nutritional factors contents and enhance the feed value of the grain.

Review was carried out on the nutritional value of cereal and legume grain and the potential of native raw materials in the animal nutrition and its effects on the production quality.

Keywords: native raw materials, cereal grains, legumes, animal nutrition