

Utilization of locally available alternative feedstuffs for improvement of chicken production in Kenya

The potential for increasing chicken production is through sound management practices, especially improved nutrition. Conventional poultry feeds ingredient in Kenya and other developing countries are becoming scarce and very expensive. However, a wide range of alternative feedstuffs are available for feeding birds in all production systems. The objective of this paper is to examine some of the locally available feedstuffs, their role in chicken nutrition and limitation arising from their usage. Birds require all nutrients namely, Energy, proteins, fats, minerals and vitamins in balanced proportion. Nutrient requirement in birds vary according to genotype, age and purpose of production (eggs or meat). They require 2400-3200 kcal per day and 14-23 per cent energy and crude proteins respectively depending on breed, age and production. Alternative plant feed resources locally available in Kenya include; spend brewers waste (23.6% C.P and 14% C.F), Triticale (10.2-15.5% C.P), Wheat and sorghum grains, cassava roots and sweet potato tubers and green vegetable materials as well as cotton, sunflower and sesame seed meals. Alternative animal protein feed resource that can support chicken production include; housefly maggots (44.44-63.99% C.P and 2381-4140 kcal metabolizable energy), fish byproducts, termites (37-46.3% C.P), earth worms and soldier fly maggots. A number of challenges that may arise from utilization of alternative feeds; these include, lack of consistence in nutrient quality, limited information on available nutrients, presence of anti-nutritive factors, seasonal and unreliable supply, competition with humans and cost of processing. In conclusion, research, training and development agencies should focus the need to develop technologies that can reduce the cost of production by promoting and improving on the alternative poultry feed resource available in different ecological zones in Kenya.

Key words: Chicken, Nutrients, Energy, protein, conventional feeds and alternative feeds