

The role of agricultural waste in optimizing the poultry diet rationale In Guilan province

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Minimizing the cost of production for a certain amount of the product is one of the key issues for agricultural and animal husbandry managers. The bulk of the costs of a poultry unit (an average of 75%) are related to poultry nutrition and rationing. For this reason, it is imperative to use methods to reduce costs, including linear and mathematical programming. Regarding this, in this research, we have tried to use a conventional linear programming model (LP) as a framework for using agricultural wastes in optimizing the poultry diet basket in Guilan province. For this purpose, four types of common agricultural wastes in Guilan province, including rice bran, citrus, olive pomace and macaroni waste, have been studied. In the analysis of the present research, the data and requirements of essential nutrients requirements and supply of each of them in the diet of broiler chickens in early stages (21-27 days) and growth period (21-42 days) by poultry nutrition experts and Attention was drawn to the values specified in the Oral Analysis Table (NRC 2016). Also, the price of each feed as well as the agricultural wastes discussed separately the period of the research was prepared by veterinary experts and the information obtained in the form of linear equations (LP) in the Lingo 17.0 program was calculated and analyzed. . The results of this study showed that the use of rice bran, olive pulp, citrus pulp and spaghetti waste at different levels had a significant effect on reducing the cost of optimum rations compared to control diets. Also, the results of linear programming in the utilization of rice bran, citrus pulp, olive pomace and macaroni waste showed that various compounds of food in a kilogram of ration by conventional LP method are used to provide all nutrients . Its physiological values (according to experts) are fully consistent with nutritional limitations and include equivalent costs.

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