Opinion

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Useof Fly(Musca Domestica)Larva Mealin Poultry Diet

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ABSTRACT

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Opinion

In Pakistan the bulk of soybean meal for animal feed production, especially for poultry feed, is imported which has led to increase production cost of poultry. Due to high price of imported feed ingredients feed cost accounts for more than 75% of the total cost of poultry production. Increasing cost of feed ingredients, especially soybean meal, has slowed down the growth of the poultry business in the country. Commercial poultry has traditionally been based on soybean meal as the key protein source because of its high nutritional profile. With the constantly increasing demand for soybean meal throughout the world, it is estimated that its cost will continue to further rise in the world market. Therefore it is the need of the time to find alternative sustainable good quality protein resources that can replace/substitute soybean meal in poultry nutrition. Such an option of economical and quality protein source may be provided by insect larva meal.

Food and Agriculture Organization has stressed upon the urgent need to explore alternative feed resources such as insect meal to fulfill the increasing demand for animal products for the growing world population (FAO, 2014). Among the insect species that have been gaining attention as alternatives to the conventional feedstuffs, housefly (Musca. domestica) larvae meal is certainly one of the most promising protein sources[1]. Fly larva meal has been investigated as appealing for poultry due to its good nutritional profile [2] therefore, it may be used a possible substitute for soybean meal. Moreover, some recent research in poultry nutrition has been directed towards this rising nonconventional feed ingredient in the diet of different poultry species i.e. broiler chickens [3,2], commercial layer [4-7]quails [8,9] and partridges [10,11]. Results of these studies have shown encouraging effect on general health status, production performance and meat quality of poultry. Amongst the flies, Musca domestica (common housefly) larvae can be produced rapidly on organic waste materials converting lower price commodity into a high value feed stuff hence it may prove to be a very cheap and sustainable protein source for poultry ration. House fly larva meal has ideal nutrient composition and can easily be produced [12]. Dietary inclusion of house fly meal as an alternative to the expensive soybean meal may help to reduce the cost of poultry production in Pakistan. However, very few studies are available in the literature on application of house fly larva meal as a possible alternative protein source on performance of broiler. Therefore, it is suggested to explore the comparative effect of replacement of soybean meal with house fly larva meal on performance, blood profile, nutrient digestibility and gut-histomorphology of broiler in Pakistan[13-15].

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