INFLUENCE OF HEAT TREATED SWILL FEED ON THE PERFORMANCE OF LARGE WHITE YORKSHIRE PIGS


Department of Livestock Production and Management
Madras Veterinary College
Chennai - 600 007

Experiment was conducted using 24 weaned Large White Yorkshire piglets to study the influence of heat treated swill feed on the growth performance. The piglets were divided into three treatment groups comprising of eight in each group and subjected to different feeding systems viz., concentrate feed, untreated swill feed and heat treated swill feed. The final body weight at 180 days of age was higher in pigs fed with heat treated swill feed (71.88 ± 4.17 kg) when compared to untreated swill feed (67.87 ± 3.13 kg) and concentrate feed fed pigs (60.56 ± 4.91 kg). The average daily body weight gain was higher in heat treated swill feed group (0.52 ± 0.03 kg) than the concentrate feed (0.50 ± 0.03 kg) and untreated swill feed fed groups (0.49 ± 0.03 kg). There was significant difference (P<0.01) in feed intake among the three experimental groups. The feed conversion efficiency was better in pigs reared under concentrate feed (4.02 ± 0.28 kg) than pigs fed with heat treated (8.33 ± 0.74 kg) and untreated swill feed (8.68 ± 0.80 kg) groups. It was found that heat treated swill feed groups performed well in terms of higher weight gain compared to untreated swill feed and concentrate feed.

Key words: concentrate feed, untreated swill, heat treated swill, growth, LWY pigs.

In India pig farming has special significance as it can play an important role in improving socio-economic status of sizeable section of weaker community. Pigs are considered as the only litter-bearing animal among meat producing livestock having the shortest generation interval and high feed conversion efficiency. Feeding of food waste / garbage to swine (swill feeding) is a common practice throughout India and is often concentrated around metropolitan centers. Food waste can be defined as any edible material by-products that are generated in the production, processing, transportation, distribution or consumption of food. The food waste must be heated before feeding to pigs as mandated by the 1980 Swine Health Production Act. This is done to reduce the risk of diseases in swine and to eliminate any other harmful pathogens. Hence this study was aimed to find out the effect of different feeding systems on the performance of pigs.

The work was designed to study the effect of three different feeding regimens on growth performance of Large White Yorkshire pigs. A total of twenty-four Large White Yorkshire piglets weaned at the age of 56 days were randomly selected based on bodyweights and divided into three treatment groups of eight piglets each. The first group was fed with concentrate only, the second group was fed with untreated swill feed, the third group was fed with heat treated swill feed. All the treatment groups were fed ad-libitum. The data on the average daily feed intake, average daily weight gain, fortnightly body weight and feed
conversion efficiency in all the three treatment groups were recorded. Concentrate, untreated swill feed and heat treated swill feed were analysed for their proximate composition. The data for all the parameters studied were analysed as per method suggested by Snedecor and Cochran (1994).

It was revealed that there was no significant difference in body weight observed between the three different experimental groups viz., concentrate feed, untreated swill feed and heat treated swill feed fed groups. However the piglets, reared with heat treated swill feed recorded comparatively higher body weight followed by untreated swill feed and concentrated feed. This is in agreement with the findings of Srinivas and Sagar (1991) and Anil et al. (2007). Also reported better body weight in piglet raised under garbage feed than those raised under concentrate feed. On the contrary Somanandha Sarma et al. (1996) and Ranjan et al. (2003) in a comparative study on growth performance of pigs with concentrate and swill feed reported significantly higher body weight in pigs under concentrate feed than swill feeding.

The difference in average daily feed intake among three experiment groups viz., concentrate feed, untreated swill feed and heat treated swill feed groups was found to be highly significant (P<0.01). Piglets fed with heat treated swill feed recorded maximum daily feed intake followed by untreated and concentrate feed fed groups. The higher average daily feed intake observed in the present study is in agreement with the findings of Kornegay et al. (1965), Srinivas and Sagar (1991), Kannan (2006) and Anil et al. (2007). The reason for the increased feed intake with swill feed could be attributed to the reduced concentration of energy and lesser dry matter content of swill feed compared to the concentrate feed. Hence in order to meet the nutritional requirement in terms of energy and protein, the piglets consumed more swill feed.

In the present study a highly significant difference in average daily gain was observed between the pigs reared under different feeding regimens. Piglets fed with heat treated swill feed recorded the maximum average daily gain of 520 + 0.044 g followed by untreated swill feed and concentrate feed. A similar trend of increased body weight gain of pigs, raised with heat treated swill feed was observed by Kornegay et al. (1970). The higher body weight with swill feed observed in the present study is in agreement with findings of Srinivas and Sagar (1991), Sinha et al. (1993), Ranjan et al. (2003) and Anil et al. (2007). In contrast to the above findings, Somanadha Sarma et al. (1996) reported higher average growth rate in pigs fed with concentrate feed than with swill feed.

The average fortnightly feed efficiency of Large White Yorkshire pigs, showed higher significant difference between the three different feeding regimens. Among the three treatment groups, the pigs maintained under concentrate feed efficiently utilized the feed followed by untreated and heat treated swill feed fed groups. This is in accordance with the findings of Srinivas and Sagar (1991), Lezcano et al. (1992) and Chae et al. (2000) observed higher feed efficiency in pigs fed with concentrate feed than pigs fed with swill feed. However Tirkey et al. (1999) reported no significant difference in feed efficiency between concentrate and swill feed.

**REFERENCES**


Chae, B.J., Choli, S.C., Kim, Y.G., Kim, C.H and John, K.S. (2000). Effect of feeding dried food waste...


