FEEDING VALUE OF LEUCAENA SEEDS FOR SWINE, CHICKENS AND RATS

Taiwan is short of protein supply. Every year considerable quantities of soybean and other protein supplements are imported to be used as animal feeds involving quite a large amount of foreign exchange.

*Leucaena leucocephala*, common called koa haole in Hawaii, is a legume grown in most parts of the island of Taiwan. Its production is quite abundant and with high protein content. The only defect is that it contains mimosine, a toxic amino acid. The ingestion of mimosine by non-ruminants causes alopecia and other symptoms of ill health. However, it has been observed that when fresh leaves are stored at elevated temperatures, the quantities of mimosine in the leaves decrease. A similar effect occurs in seeds when sufficient moisture is present (1).

The use of dehulled leucaena seeds as a protein supplement after cooking and washing processes for the growing-finishing pigs was conducted with satisfactory results (2). Hulled processed seeds, supplemented with fish (3) or yeast (4) as the protein source for pigs, also got beneficial effects. The breeding boars fed the diet containing the hulled processed seeds showed that the average numbers of sperms per cubic centimeter and total sperms in ejaculate of the boars were lower but the difference was not statistically significant (5).

Hulled leucaena seeds also could be used as protein supplement for the poultry after soaking, cooking and washing processes. The chickens receiving the diet containing 10 percent of the processed seeds showed no ill effects on growth, feed efficiency of the growing chicks (6), egg production, quality, hatchability of the hens and dressing percentage, nutrient composition of their carcasses (7) as well as the semen characteristic of the breeding cocks (8).

The growing rats fed the diet containing 10 percent of the hulled processed seeds showed a little poor growth. However, no significant effects on their digestibility and reproductive performance were found according to our preliminary feeding trial.

Literature Cited:
Bryant P. K. Lee (continued):


