feeding trial of 20 weeks duration was conducted using 240 point-of-lay Hy-line layers to study the nutritive value of diets containing low-energy agro-industrial by-products namely wheat bran, maize bran, rice bran, brewers' spent grains and cocoa pod husk on laying performance. The experimental diets were formulated to be iso-caloric and iso-nitrogenous. They contained an average of 16.3% crude protein and metabolisable energy of 10.38 MJ/kg. Each dietary treatment was replicated four times in a completely randomized design. The initial average live weight of the experimental birds was 1.75 kg. Feed and water were provided *ad libitum*. Among the production parameters studied were feed intake, body weight gain, feed conversion ratio, hen-day production, hen-housed egg production, egg weight, mortality, shell thickness, and Haugh unit. In addition, cost-benefit analysis was carried out to establish the economic feasibility of the experimental diets. With the exception of feed intake which showed significant response (p < 0.05) to dietary treatments, all the other production parameters showed a nonsignificant positive response (p > 0.05). Cost per kilogram diet was reduced when agro-industrial byproducts were used. Dietary treatment T<sub>2</sub> supported the best egg production with a net revenue of GH¢371.30. Seasonal increases in the prices of conventional feedstuffs like maize and fishmeal would make the use of agro-industrial by-products in poultry diets even more attractive. Key words: