

SUMMARY

CORN, *Zea mays* L., ENERGY SOURCE SUSTITUTION BY POTATO FLOUR, *Solanum tuberosum* L., IN THE GUINEA PIG, *Cavia porcellus*, DIET DURING THE GROWING AND WEIGHT GAINING STAGE

This research took place in Chaltura – Imbabura. After a sanitary program, potato flour amounts in substitution of corn mill in 0, 25, 50, 75, and 100% were tested. Food consumption, weight increment, food conversion, treatment costs, and meat characteristics were analyzed.

A Completely Randomized Design with 5 treatments and 4 repetitions was implemented. A Tukey significant test at the 5% level, and a Freedman significant test for meat characteristics were used.

It was found in the growing stage that the food consume was the same for all the treatments. In the weight gaining stage, it was found a better acceptance in the treatment with 25% of potato flour. It showed an average consumption of 0.7 kg/animal in the stage from 61 to 75 days. Likewise, in the growing stage the weight increment in the animals was the same. In the weight gaining stage, it was found that there is a larger increment within the period between 61 and 75 days with an average of 230.63 g/animal when the substitution is 100% of potato flour. The average increment was 192.5 g/animal when the substitution was 25% of potato flour during the period from 76 to 90 days. In the other hand, in the growing stage (period from 30 to 45 days), there was a better food conversion with 100% of potato flour with an average of 6.21. In the period between 46 – 60 days, the response among the treatments was the same. In the weight gaining