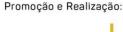# RESPONSE OF THE USE OF GRAINS TO FEED COWS IN DAIRY PRODUCTION SYSTEMS LOCATED IN PARANÁ STATE, BRAZIL.

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Paraná Sate has almost 20% of Brazilian grain production. In 2016, this State sells about 7 million tons of corn and 3 million of tons of soybean. Important to note that soybeans and corn are represent two main ingredients in cattle feed process. It is assumed that the greater input of these grains into cattle feed is an important strategy to add value to the grains, that are usually exported, and represent too, a strategy to increasing milk production in dairy systems, since cows have great capacity to convert grains into milk. The aim in this study was to identify the responses of dairy production systems (DPS) to the use of grains in dairy cows as a function of productive variables. We applied questionnaires in 22 DPS located in three municipalities of Paraná State. Questionnaires were applied supported by a voice recorder. The data were tabulated in spreadsheets for analysis of principal components (PC) and multiple linear regressions. Principal component 1 (PC1) explained 55,30% of the variance of analyzed cases. It was defined by variables related to the use of grains in DPS. PC1 presented a high correlation to milk production (Liters/day/cow) and income per worker (revenue / worker) and cow (revenue /cow). Thus, the supply of grain in the feeding cows milk has a direct impact on the gross income in DPS. So, the strategies of increasing grains in feed of cows imply in better production results in dairy production systems.

Key-words: animal feed, multivariate analyzes, ration.