6. SUMMARY

The main objective of the present study was to analyze the efficiency of the use of resources for corn production in two different regions: one characterized by intensive use of modern inputs and techniques, and the other where the utilization of modern techniques is not notable.

Functions were estimated according to the Cobb-Douglas and Ulveling-Fletcher models, including variables not traditionally utilized, such as soil fertility, population, and credit.

The basic information utilized referred to the agricultural year 1974/75, obtained through direct interviews with 81 farmers of the "municipio" of Ibaití, PR. and 44 of São Joaquim da Barra, S.P., belonging to the list of farms registered at the INCRA (1973).

An intensive labor production system associated with a structure of small farms was observed in Ibaití, whereas intensive capital techniques organized in average size and large farms were observed in São Joaquim da Barra.

A similar specification of the structural production relationships was not possible for both municipios. This conclusion is consistent with what was expected when areas utilizing different technologies were selected.

It was shown that, in Ibaití: (a) the production factors are being utilized at the rational stage of production; (b) the principal variations in production are associated with cultivated area, labor and fertility; (c) the area planted to corn should be increased in order to maximize profit, even though some of the farms are in the confidence interval of the optimum combination for this resource; (e) most of the farms have their level of use of modern inputs in the confidence interval of the optimum combination; however some of them should increase their use; (f) utilization of the most fertile land for corn planting shifts the production function upwards.

In São Joaquim da Barra, it was shown that: (a) the production factors are being utilized at the rational stage of production; (b) the principal variations in production are associated with cultivated area and machinery and equipment; (c) the area planted to corn should be increased. The number of farms in which this production factor is in the confidence interval of the optimum combination is small; (d) the utilization of machinery and equipment is in the interval of the optimum combination; few should increase their use; (e) use of credit for corn production is excessive.

The Ulveling-Fletcher production function estimated for Ibaití shows that soil fertility and plant stand affect the partial production elasticity of the cultivated area.

In the agricultural year 1975/76 (subsequent to the present study) there was a 27.61% increase in the area planted to corn in the Ribeirão Preto region, in relation to the agricultural year 1974/75. This, to a certain extent, is consistent with the results found in the present study. This increase in cultivated area was stimulated by a 33.3% increase in the minimum price for this crop.

In São Joaquim da Barra the available credit is being absorbed, whereas in Ibaití this does not occur.

Programs of technical assistance to farmers in both regions might bring about changes in the allocation of the production factors, which simultaneously would meet the interests of the farmers and of society in general. For example, the use of the correct number of plants per area would not raise the cost and would result in substantial increases in productivity of resources. On the other hand, an improvement in the allocative efficiency of credit, which is a scarce resource, would have a similar effect.