



Tropentag, September 18-20, 2019, Kassel

“Filling gaps and removing traps
for sustainable resource management”

Agroeconomic Viability of Irrigated Common Bean Production by Small Farms in the Micro-Region of Ceres, Goias State, Brazil

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Abstract

The objective of this study was to determine the economic viability of common bean production by small farms in the micro-region of Ceres, Goias state, Brasil. Common beans are grown in three different seasons: 1st season (summer, during rainy season), 2nd season (late summer until autumn, with last rainfall) and the 3rd season (winter, with irrigation). The 3rd season represents the greatest ability to increase production, since area is available, and irrigation enables production in several areas of Cerrado region in Brazil. Ceres micro-region in Goias state represents one of those potential expansion areas to grow common beans. Therefore, within the Ceres micro-region, including the municipalities of Ipiranga de Goias, Rialma and Ceres, we monitored the cropping systems used by three farmers (one in each municipality). Those farmers actively interact with researchers doing on-farm research in their farms. The information about cropping systems allowed us to assess the economic viability of those cropping systems using indicators like production costs (total and average), profitability and break-even point. All farmers received US\$ 60 to 65 per 60kg bag of common beans. The results indicate that: (a) The drip irrigated common bean production system, interspersed with the production of green maize, developed by the farmer of the municipality of Ipiranga de Goias, led to an increase of family income. The common bean break-even price was US\$ 51.39/60 kg bag. (b) For common bean producers in the municipality of Rialma who used the conventional irrigation system to distribute sprinklers in the production system, the break-even price for common beans was US\$ 21.28/60 kg bag. (c) The irrigated common bean producer in the municipality of Ceres who used the no-tillage system to grow irrigated beans, obtained the break-even price of US\$ 37.66/60 kg bag. Considering these break-even prices, all three farmers had a positive profit with common bean production under irrigation during the winter season.

Keywords: Break-even point, economic efficiency, production costs