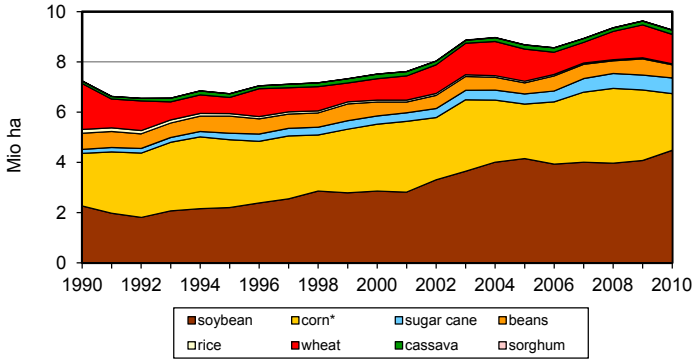
The typical farm BR195PR in Paraná, Brazil

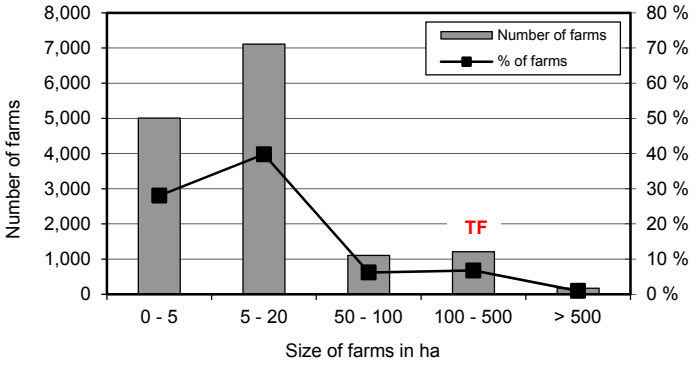
Agricultural land use in paraná



As at national level, also at regional level the area planted with the most important crops rose by 28 % during the last 20 years, in particular since 2001. In Paraná, soybean and corn are the most important crops, followed by wheat, all three grown by the typical farm. In 2010, these three crops together occupied 85 % of the total planted area, namely 7.9 million ha. Sugar cane is grown only on 7 % of the land in Paraná but gains in area.

** partially double cropping*
Source: IBGE -PAM 2011

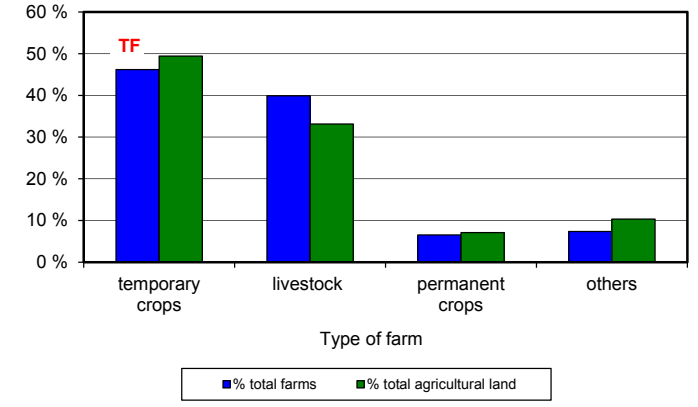
Farm structure - Cascavel Microregion (2006)



Though 2/3 of the farms in the Cascavel region have less than 20ha of land, the typical farm was designed to have 195 ha, a reasonable size for a commercial farm which can survive in the long run.

Source: IBGE 2011 based on 2006 survey

Farm classification Paraná in 2006 - based on gross margin shares

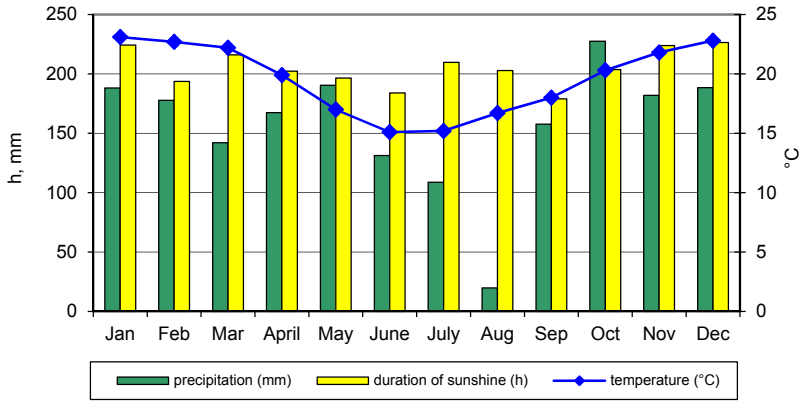


In 2006, 46 % of the Paraná farms obtained the majority of their gross margin from temporary crops and occupied 49 % of the agricultural land. Farms keeping livestock represented 40 % of the farms and 33 % of the farming area. Therefore, the typical farm BR195PR was constructed as a pure cash crop farm.

Source: IBGE - Agricultural census (2006)

Authors: Kathrin Strohm, Daniel Velazco Bedoya and Mauro Osaki, May 2012

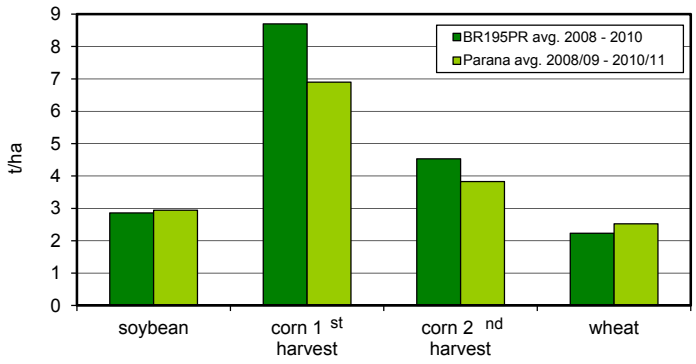
Mean climate data 1978 - 1998 Cascavel - PR



The annual precipitation in Cascavel, Paraná amounts to 1,880 mm with a low during August and an average of 169 mm during the remaining 11 months. The monthly sunshine varies between 179 and 226 hours, with a yearly total of 2,400 hours. Thus, the average temperature is 20 °C and ranges between 15 °C (June - July) and 23 °C (December - January).

Source: IAPAR (2011)
http://www.iapar.br/arquivos/Image/monitoramento/Medias_Historicas/Cascavel.htm

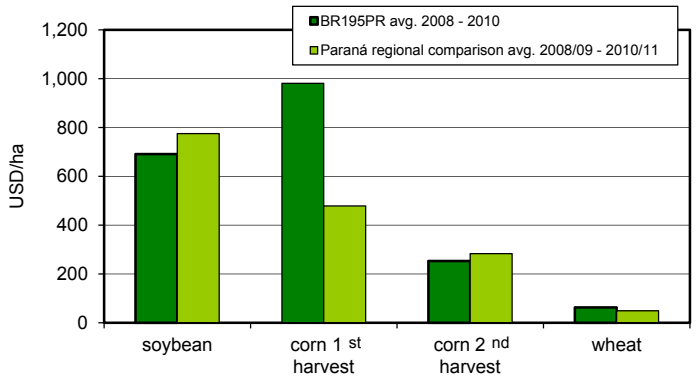
Comparison of average yields - PR



Due to its top technology regarding machinery but also seed and fertilizer application, the typical farm obtains higher corn yields, both as a first and as a second crop, than the regional average. In soybeans the yields are almost equal and in wheat the other farms in the region do better.

Source: CONAB 2011, agri benchmark 2011

Gross margin comparison - PR



To calculate gross margins (GM) the CONAB database provided data on cost of production for wheat in Cascavel. For the other crops the Campo Mourão region was taken as a proxy which complicates a comparison. Following a much higher yield in corn as a first crop and lower direct costs, BR195PR obtains a GM twice as high as the state average. Despite a slightly higher yield, corn as a second crop obtains a lower GM since the typical farm faces higher direct costs than the farms in the CONAB database. Higher direct costs are also the reason why the typical farm has a lower soybean GM.

Source: CONAB 2011, agri benchmark 2011