

Re-designing of vegetable farming systems in South Uruguay; linking theory and practice

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Most vegetable farms in Uruguay are family farms producing for the internal market, which have faced 20 years of continued decreasing of products prices and increasing of inputs and energy costs. The strategy followed by most farmers was to intensify and specialize their production systems, putting more pressure in already deteriorated soils and on limited farm resources. To explore options for sustainable development an explorative study was conducted, which developed a bio-economic model able to design farm systems taking into account different farm development paths. It showed that for most vegetable farms it is possible to significantly increase family income, reduce soil erosion by a factor 2-4 and reverse soil organic matter decline by reducing the area of vegetable crops, implementing crop rotations including green manure, pastures, and forage crops, and integrating animal production, which is the opposite to the strategy followed by most farmers. To explore these hypotheses, a project was started at the end of 2004 and expanded in 2007 with participation of the Farmers' Unions. The EULACIAS project aims to improve sustainability of vegetable farming systems by linking quantitative systems approaches to participatory learning processes and on-farm diagnosis and design with main stakeholders as participants. This paper aims to report on the approach followed in this project and will present results on increasing sustainability of vegetable farming systems in Uruguay.