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Soil response to biodynamic farming practices in estevia –Stevia Rebaudiana- (Extremadura, Spain)

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The first results of the evolution of an organic-biodynamic cultivation of stevia (Stevia rebaudiana) in Extremadura (Spain) are shown here. The organic-biodynamic approach permits experimentally for a more holistic view of the crop development process what means the understanding and quantification of its evolution at different scales. The research methodology applied includes not only quantitative individual parameters of the crop development but also global parameters which make a contribution of very relevant information concerning unbalances between growth and differentiation processes, as well as other aspects linked to the product intrinsic quality.
The crop cultivation has been done over a plot of 2.5 has, on acid soils (pH 5.18) and very poor organic matter content (0.5 %). On this first year of cultivation two cuts were given to the plant with an average total yield of 4,500 kg/ha without any supply of solid organic matter, only with the application of the biodynamic preparations.
So far results regarding soil improvement and crop productivity, taking into consideration the practices used, let us introduce this pioneer crop in Extremadura, not only as an alternative crop to the current tobacco crop in this area, but also as a development resource for the rural environment of this region.

Key words: Agroecology, Organic Biodynamic Agriculture, Stevia Rebaudiana