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AGRICULTURAL ANSWER TO CLIMATE CHANGE - OPTIMIZING RESOURCES

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Objective: Sustainable future is our task. Site-specific crop production is compatible with sustainability from ecological, economic and social aspects. The aim of the paper is to highlight the role of innovation in optimizing resource use in agriculture. That means the use of all items of precision technology based on a certain degree of intensity and technology of production matched with a form of farming technology that is appropriate for the environment. The question to be answered is: what solutions give enough income for farmers and keep the environment in good condition if the climate is changing, in the aspect of the "de-growth' theory developed by Serge Latouche. Methods: Economic characteristics of site-specific plant production are examined based on cost-benefit analysis and the risk is estimated with simulation model. Based on content analysis a summarization is given in this paper on the 'de-growth theory'. The paper focuses on our former researches where the question was discussed as an economic question of farms, innovation and cooperation, taking into consideration attitudes and willingness to cooperate. Results: Site-specific farming is a holistic system, a technology that allows target-oriented treatments, thus managing the spatial and temporal variability within an ecosystem, by applying spot treatment applications, finding the optimum solutions, when the climate, water supply is radically changing with an increasing risk of production. And at the same time, the farmer has to be effective! How to combine the concept and practice of site-specific agriculture with sustainability in a changing word? The concept of site specific farming meets with the following thoughts of the 'de-growth' theory: (1) Allows the efficient use of natural resources (Restructurer – restructuring factors of production). (2) Each farming strategy in which the farmers' cooperation is the base of the efficient machinery use (Restructurer – restructuring of social relationships). (3) Each technology that reduces the human-health risk (Réduire – reduction) shows into the direction of 'degrowth'.

Keywords: *sustainable development renewal, site-specific agriculture, risk, answers 'de-growth theory' strategy, cooperation JEL classification: Q01; Q55; P49*

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