

A Multicriteria Model for Sustainable Management in Agriculture

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Abstract : The European agricultural policy supports all member states to apply agricultural development plans for the development of their agricultural sectors. A specific measure of the agricultural development plans refers to young people in order to enter into the agricultural sector. This measure helps the participating young farmers in achieving maximum efficiency, using methods and environmentally friendly practices, by altering their farm plans. This study applies a Multicriteria Mathematical Programming (MCDA) model for the young farmers to find farm plans that achieve the maximum gross margin and the minimum environmental impacts (less use of fertilizers and irrigation water). The analysis was made in the region of Central Macedonia, Greece, among young farmers who have participated in the "Setting up Young Farmers" measure during 2007-2010. The analysis includes the implementation of the MCDA model for the farm plans optimization and the comparison of selected environmental indicators with those of the existent situation.

Keywords : multicriteria, optimum farm plans, environmental impacts, sustainable management

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