

THE ECONOMIC AND ENERGY EFFICIENCY OF ECOLOGICAL HOLDINGS

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Abstract

The development of the ecological agriculture sector in our country in the past decade has triggered the expansion of the research in the field, at both theoretical and experimental level. The research performed and presented in this paper contributes to the level of knowledge in this field by means of practical suggestions for economically and energetically streamlining the agricultural businesses in our country. These suggestions are materialised in projecting ecological production structures, economically and energetically viable ones. The methodology used in the projection was based on the data gathered at the level of a 700-hectare holding in the south of Romania and integrates specific calculation starting from the technological records and crop budgets. The results obtained allowed us to draw the following conclusions: the economic efficiency (profit rate of 111.1%) can be obtained with a crop rotation made up of 160 ha wheat, 300 ha sunflower, 140 ha maize, 40 ha alfalfa and 60 ha peas; the energy efficiency (energy yield of 0.171) is obtained in the case of the crop rotation made up of 340 ha wheat, 180 ha sunflower, 90 ha maize, 70 ha alfalfa and 20 ha peas.

Key words: ecological agriculture, economic efficiency, energy efficiency, holding modules