

Economic and mathematical modeling of regional industrial processes

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Abstract

© 2018 International Strategic Management Association. All rights reserved. The paper presents a method for the parallel optimization of the structure of sown areas for calculating economic and mathematical models for the traditional and organic-oriented land use systems characterized by the introduction of an additional set of environmental criteria constraints. Based on the proposed methodology, an economic-mathematical model has been calculated and the effectiveness of the functioning of the Altai Foothills zonal agroecocluster has been proved. Considering the full involvement in the agricultural production turnover of land suitable to produce organic products, the level of profitability was 39.7% against 17.3% in case of optimizing the structure of the sown areas in the traditional system of agricultural production.

Keywords

Economic and mathematical modeling, Optimization of production processes, Organic products, Production efficiency, Sectoral economics

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