The image contains information about an international conference titled "Agribusiness, Environmental Engineering and Biotechnologies" AGRITECH-2019, held in Krasnoyarsk, Russia, from 20-22 June 2019. The content includes the names of the authors: I Ya Lvovich, Ya I Lvovich, A P Preobrazhenskiy, Yu P Preobrazhenskiy, and O N Choporov.
Problem statement

• The problem is the development of a set of problem-oriented modeling and optimization procedures based on the results of monitoring and rating evaluation, providing management decisions to improve the resource efficiency of agricultural companies.

• The main steps of solving problem:

• To analyze ways to optimize the management of resource efficiency of agricultural companies through the use of the results of monitoring and rating evaluation of their activities and intellectual support for management decision-making.

• To form the structure of the management system of resource efficiency of agricultural companies and procedures for processing monitoring information with a focus on optimizing management decisions.
• The method of multi-alternative optimization was used.

• When assessing the effectiveness of the developed approaches, we considered the statistical data of monitoring and rating evaluation. Statistical samples of time series for several years of monitoring the efficiency of agricultural companies were formed. They included information on financial and economic activities, infrastructure of organizations, personnel, etc. The graphs of time series of key indicators are formed and analyzed. A sample of the financial statements for the last years is made. The analysis of the rating of agricultural organizations. Indicators of monitoring the effectiveness of organizations are divided into 2 groups: affecting the change in income; affecting the change in costs. The impact of the prognostic assessments was assessed. The integral rating index was considered as the sum of indices of different activities of organizations.
Conclusions

Results, implementation

- The analysis of ways to optimize the management of resource efficiency of agricultural companies and shows the possibility of using the information of monitoring and rating evaluation to build a model and develop procedures for intellectual support of management decision-making.

- A combination of methods for processing time series of monitoring information with the focus on optimization of resource efficiency management in combination with rating management is carried out.

- Optimization models and algorithmic procedures for the formation of a variety of alternative options for management decision-making to improve resource efficiency in the long-term planning of agricultural companies.
Contacts

I Ya Lvovich¹, Ya I Lvovich², A P Preobrazhenskiy¹, Yu P Preobrazhenskiy¹, O N Choporov²

¹Information Systems And Technologies Department, Voronezh institute of high technologies, 73a, Lenina st, Voronezh, 394043, Russia
²Information Security Department, Voronezh state technical university, 14, Moscow dist., Voronezh, 394026, Russia

E-mail: komkovvivt@yandex.ru