«Ensuring the Operational Reliability of the Tractor Fleet»

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Problem statement

• In contemporary, rather difficult economic conditions, taking into account the policy of import substitution, including agricultural production, the effective maintenance of the tractor fleet is one of the most important tasks for enterprises of agro-industrial complex. The purpose of the study is to improve the operability and reliability of tractors and agricultural machinery in the conditions of the European North.
The methods of analysis and synthesis, mathematical and simulated, physical modeling, mathematical statistics and programming were used in the work.
Conclusions

This method (Figure) will not only determine the minimum amount of money to ensure the reliability of the tractor fleet, but also provide rational run-to-failure, which will be 191 conventional reference per hectare with tractors loading in a busy period of 550 conventional reference per hectare. In the conditions when the renewal of the tractor fleet occurs at low rates, the problem of ensuring the reliability of technics should be based on the constant monitoring not only the tractor fleet technical state, but also the agricultural machines fleet as a whole. In addition, constant adjustment of individual reliability indicators is necessary.

Figure. Costs for increasing reliability and eliminating failures
Contacts

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