DETERMINING THE STATE OF DRAINAGE SYSTEMS USING DATA OF REMOTE SENSING IN THE NORTH-WEST REGION OF THE RUSSIAN FEDERATION

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In the North-Western region of the Russian Federation, drainage reclamation is of great importance, since even slight waterlogging can seriously affect the value of the final product. Efficiency in decision-making is extremely important for determining the optimal timing and dates for agrotechnological operations: tillage, sowing, fertilizing, because. The state of the water-air regime of the root layer affects the size and quality of the crop. On reclaimed lands, the development of agricultural crops during the growing season is directly related to the state of the drainage system.

Reclamation systems require constant, systematic maintenance, and in the event of their failure, then a major overhaul. During the construction of drainage reclamation, for every 1000 ha. a reclamation detachment was created to service the constructed facilities. Nowadays, large agricultural holdings are being created, which include tens of thousands of hectares of reclaimed land, but the desire to reduce costs leads to the fact that more than 17 thousand hectares serves only three reclamation teams.

The article proposes a method for assessing the state and efficiency of reclamation systems based on monitoring the vegetation index NDVI according to remote sensing data. This approach allows assessing the state of the drainage system and optimizing the logistics of maintenance and its repair using the example of one of the holdings in the North-West of the Russian Federation.

***Key words**:* drainage melioration, monitoring of agricultural landscapes, geoinformation systems, remote sensing data.