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**Agrometeorological conditions for cultivation of grain and leguminous crops and a possibility of using satellite information to predict their yield in the subjects of the North Caucasian Federal District** / Strashnaya A.I., Bereza O.V., Klang P.S. // Hydrometeorological studies and forecasts, 2022, no. 2 (384). pp. 147-167.

The results of studying the influence of agrometeorological conditions and farming standards on the yield of grain and leguminous crops in the subjects of the North Caucasian Federal District are presented. Average long-term dynamics of the Normalized Difference Vegetation Index (NDVI) from the 12th to the 29th vegetation weeks for the period of 2001–2020 is calculated, which makes it possible to qualitatively assess crop conditions and possible crop productivity in a particular year as compared to the multiyear means. Using the correlation and graphical analysis, the relationships between the yield and meteorological parameters and NDVI were found, the periods of the highest correlations were revealed. The possibility and features of using NDVI in prognostic yield models in the republics of the North Caucasus, where winter crops prevailing in the region often vegetate in winter under conditions of the observed warming, are demonstrated. The developed regression models for the yield forecasting based on the integration of ground and satellite data are presented.

*Keywords:* grain and leguminous crops, agrometeorological conditions, yield, drought, satellite information, forecast

Tab. 5. Fig. 7. Ref. 19.