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**Forecasting grain crop yield based on the integration of ground and satellite data in the subjects of the Southern Federal District** / Strashnaya A.I., Bereza O.V., Klang P.S. // Hydrometeorological Research and Forecasting, 2021, no. 2 (380), pp. 111-137.

The results of research on the effect of agrometeorological conditions on the yield of grain and leguminous crops are presented. The role of farming culture in increasing productivity and the importance of meteorological factors in the yield variability are demonstrated. The frequency of droughts of various intensities in the subjects of the Southern Federal District in 2001–2020 is calculated as compared to 1981–2000. The NDVI vegetation index highly correlates with the grain crop yield. The average long-term dynamics of NDVI for the vegetation weeks is calculated, which allows assessing conditions for the yield formation in a particular year in comparison with the average long-term ones. The periods of the most effective use of NDVI in yield forecasts are determined. The developed regression models for yield forecasting based on the joint use of ground-based and satellite data are presented.

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

Tab. 6. Fig. 10. Ref. 28.