WEATHER FORECAST FOR AGRICULTURAL PRODUCTION

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Problems of modeling economic processes remain very acute in the period of unstable economic situation of enterprises and the Republic of Uzbekistan in general. Since the use of modeling methods is the main task of agricultural enterprises to increase productivity, it is possible to increase the production efficiency of the business association, including agricultural enterprises, through the optimal management of reserves, revenues, costs.

In this regard, the task of making various production and economic decisions, taking into account climatic meteorological data and analytical data, is especially relevant for agriculture. Accurate and timely weather information provided by hydrometeorological services plays a key role in ensuring the sustainable development of the economy and society as a whole. Adverse weather conditions and dangerous hydrometeorological events have a direct impact on the population and the economy.

Given the fact that the Surkhandarya region of the country is characterized by a temperate continental climate (constantly hot summers, severe cold and low rainfall), we can say that the probability of dangerous natural phenomena is much higher.

Natural hazards have the greatest impact on the region's agriculture. For Surkhandarya region, agriculture is one of the most important sectors of the economy. By 2020, the processing industry will account for 13% of GDP.

The problem of forecasting adverse natural phenomena, which can significantly reduce the efficiency of agriculture, is being studied topically and extensively, which is confirmed, firstly, by research on improving the efficiency of forecasting methods, and secondly, the impact of adverse agricultural events on Ukrainian agricultural regions [1].

Four main approaches can be used in the study of weather phenomena: synoptic, statistical, hydrodynamic, and space. Each of their approaches reveals important features of the development of macrometeorological processes.

In recent decades, hydrodynamic models of atmospheric circulation have increased the effectiveness of short-term and medium-term weather forecasts. Systems of hydrodynamic equations, which reflect the basic laws of physics, make it possible to effectively predict the state of the atmosphere for 5 to 10 days [2].

Synoptic methods of long-term weather forecasting use atmospheric macro-processes and baric topography maps to study atmospheric macroprocesses, as well as a number of special maps that reflect the structure of the thermobaric field and the nature of atmospheric circulation. Atmospheric circulation is forecasted before the weather forecast. In diagnosing and analyzing atmospheric macroprocesses, the researcher is limited to a specific system of signs that reflects the most important features of the blood circulation.

A positive feature of the statistical method is the gradual increase in the accuracy of forecasts due to the accumulated knowledge base. Due to the generalization of the cases of the actual development of the atmospheric cycle, these methods predict the weather close to the climatic norm. Since strong weather changes (floods, floods, etc.) are not observed on agricultural lands in Ukraine, the use of a statistical method for forecasting weather conditions should be considered expedient.

However, it is necessary to combine numerical and statistical forecasting methods to increase the accuracy of the obtained forecasts.

Thus, to solve the problem of building a model for predicting dangerous natural phenomena, it is necessary to use a statistical model applied to the values of the predictors calculated with a digital model.

List of used literature:

1. O.Abdug'aniev, O.Juraev. Livestock statistics indicator system specific aspects of construction. // International Engineering Journal For Research & Development. №5, USA 2020. pages 14-21.
2. http://stat.uz– Official site of the State Statistics Committee of the Republic of Uzbekistan.