«Skhidne» LLC

Crop type: winter wheat

Fields: ##5,6. Estimation of aggregate Nitrogen content

Kharkiv oblast, Balakliya Rayon, village Skhidne

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1. Weather conditions

The analysis of weather and climate data showed that during the spring growing season in April-May 2021, the content of available soil moisture was insufficient. In April, there was no more than 25 mm of precipitation, in May - up to 17 mm. In early April, night frosts were observed, which negatively affected the formation of generative organs.

In general, the conditions of the spring growing season were not entirely favorable for the development of winter wheat. At the time of the survey, the crops were in good condition due to the fact that during the critical periods of generative organs formation there were no significant drops and high temperatures.

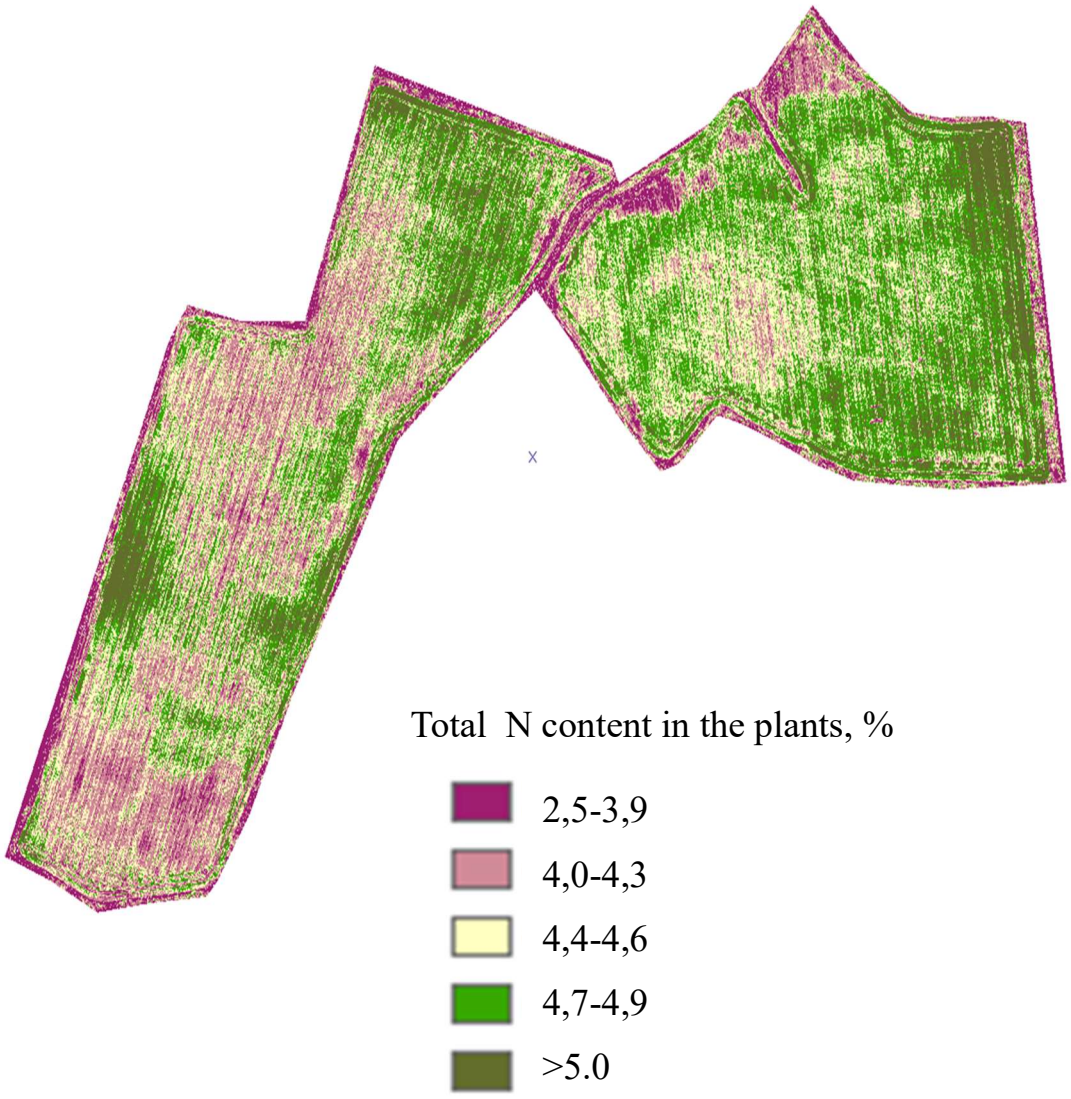
2. General comments on the state of the crop

The inspection of winter wheat crops of Vostochne LLC was carried out on April 29, 2021. The condition of the crops at the time of the inspection is good. The phase of plant development is the beginning of stemming. The predecessor is annual grasses. Plants are developed quite evenly. The density of productive shoots is 410 pcs/m2. The winter wheat crops have not suffered any losses during the wintering.

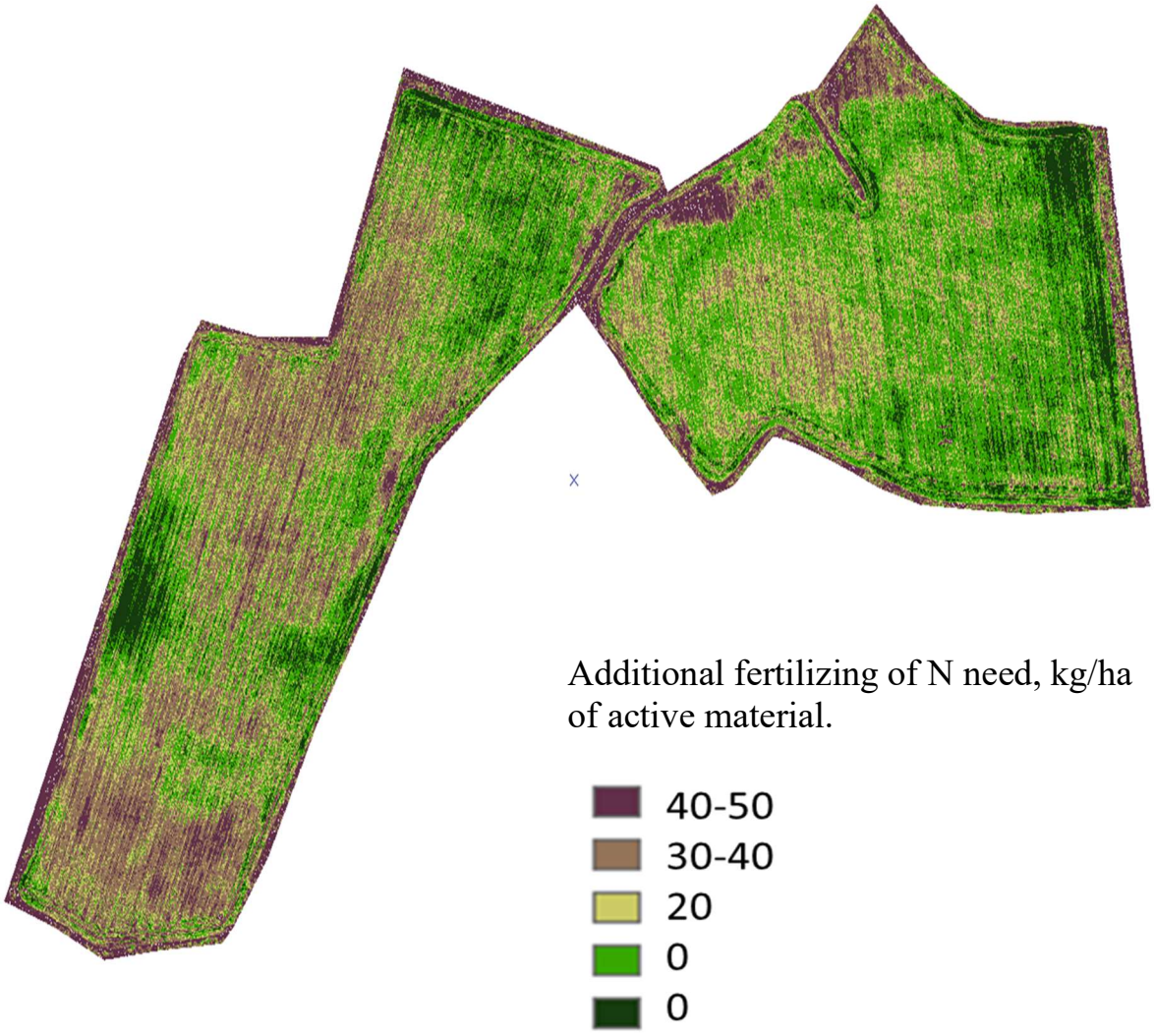
2.1 Mapping of aggregate Nitrogen content in the plants

Using the original data on the content of total nitrogen in winter wheat plants, a geo-image of nitrogen content by field was created. The content of total nitrogen varied from 2.5 to 5.0%. Based on the value of the indicator, the nitrogen demand of plants was determined and nitrogen fertilization was planned.

Early stemming phase, total nitrogen content distribution (%)



Selection of zones for additional fertilizing with nitrogen



Conclusions of the expert

Based on the results of the inspection, it can be stated that winter wheat crops are in good condition and, under further favorable weather conditions, especially moisture supply, it is possible to achieve the planned yield. Based on the geo-imaging of nitrogen content in plants, distribution zones have been created for nitrogen fertilization, which will help reduce heterogeneity in crop development.