

Annotation

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Spring deposit of available moisture for the spring barley crops when growing in short-term crop rotation system after different preceding crops.

In the context of rainfed arable farming the crop productivity is directly dependent on the conditions of soil moisture. Therefore, the task of our research was to determine the effect of such preceding crops as sugar beets, soybeans, corn and spring barley on the spring deposit of available moisture for the spring barley growing in short-term crop rotations.

It is found that the moisture in the soil layer of 0-160 cm was different after preceding crops and research data, as well as the separate layers of the soil.

On average for three years in the soil layer of 0-100 cm the least amount of available moisture (135.1 mm) was after sugar beets. After other preceding crops the deposit of moisture was 16,9-22,6 mm more. At the same time soybean, corn and spring barley were almost equivalent to each other. Though with some deviation there was the same trend in the soil layer of 100-160 cm. In the soil layer of 0-160 cm on average for three years the least amount of moisture was observed after sugar beets, and the largest - after spring barley. Soybean and corn occupied the intermediate value.

Keywords: *spring barley, available moisture, preceding crops, short-term crop rotation system*