

Vol. 12 (3): 315-324 (2022)

## INFLUENCE OF THE FORECROP ON THE YIELD AND SEED QUALITY OF WHEAT VARIETIES IN THE NORTHERN FOREST-STEPPE OF THE TYUMEN REGION

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Received April 2022; Accepted May 2022; Published June 2022;

DOI: <https://doi.org/10.31407/ijeess12.339>

### ABSTRACT

In recent decades, plant breeders of Siberia and the Urals have created a series of spring wheat varieties that combine high yields with good grain quality, early ripening, resistance to lodging, germination of grain in the ear, and other economic characteristics. Considering the current situation in the production of seeds of varieties of valuable and strong wheat, the purpose of this study is to evaluate the influence of different forecrops on the yield and quality of seeds of spring wheat varieties in the northern forest-steppe of the Tyumen region (Russia). The paper presents the results of the forecrops' influence on the yield and seed quality of wheat varieties Omskaya 36, Tyumenskaya Yublieynaya, Novosibirskaya 31, and Iren in the northern forest-steppe of the Tyumen region. It has been established that the best forecrops are annual grasses and corn. In the fields with the aforementioned forecrops, a seed yield of 2.5-3.0 t/ha with a protein content of 14-16%, germination energy of 68.8-69.3%, laboratory germination of 92.8-94.7%, profitability of 124-176% has been obtained. The third position in importance as a forecrop is occupied by rapeseed. In exceptional cases, it can also be used as a forecrop to seed crops. After spring wheat, the studied varieties had sharply reduced yields and seed quality indicators, especially for varieties Omskaya 36 and Novosibirskaya 31. The Iren and Tyumenskaya Yubileynaya varieties tolerate the grain forecrop better, but at the same time, the seeds obtained have low protein content, germination energy, and laboratory germination. The Omskaya 36 variety was inferior to all the studied forecrops in terms of yield and seed quality, so there is every reason to reduce the area of sowing of this variety and possibly replace it with a new variety adapted to local conditions.

**Keywords:** spring wheat, variety, forecrop, seeds, yield, quality.