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DEVELOPMENT OF WHEAT VARIETIES DEPENDING ON THE SOWING PERIOD AND SEEDING RATES IN THE NORTHERN FOREST-STEPPE OF THE TYUMEN REGION

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ABSTRACT

In 2018-2020, studies were conducted on the experimental field of the Northern Trans-Urals State Agrarian University (Russia) to study the effect of the sowing period and seeding rates on the growth, plant development, and seed yield of wheat varieties Novosibirskaya 31 and Iren. It was found that wheat varieties in the experimental variants formed a developed leaf surface equaling 27.7-36.8 and 26.0-34.1 thousand m²/ha, with a plant height of 80-90 cm. The duration of the growing season for the Novosibirskaya 31 variety in the experimental variants was 85-97 days, for the Iren variety 83-96 days. Harvesting took place in favorable weather conditions. On average, for three years, the maximum yield for the Novosibirskaya 31 variety was obtained at the second sowing period in the variant with the sowing of 6.7 million germinating grains per hectare and amounted to 4.32 t/ha, while for the Iren variety it was 3.58 t/ha at the second sowing period with a seeding rate of 6.7 million germinating grains per hectare. The maximum seed yield from the total yield of the Novosibirskaya 31 variety was obtained at the first sowing period with a seeding rate of 6.2 million germinating grains per hectare and amounted to 83.4%, while for the Iren variety it was obtained at the first sowing period with a seeding rate of 6.7 million germinating grains per hectare (81.7%).

Keywords: Plant growth and development; Seed yield; Seeding rate; Sowing period; Spring wheat; Variety; Yield.