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THE INFLUENCE OF GROWTH AGROTECHNICAL MEASURES ON HE PERIOD OF THE EARING OF WINTER RYE

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Abstract:

This article analyzes the sowing dates, norms and the effect of fertilizers on the duration of the development periods of winter rye varieties grown on light gray soils of the Kashkadarya region.

Keywords: winter rye, variety, period and sowing rate, fertilizer application rate, heading period.

To form a high yield from crops - the introduction of scientifically based crop rotation, the crop is the best placing after the predecessor, creating optimal water and air for the good development of the root system when working the soil, creating the norm of nutrition, effective use of organic-mineral fertilizers, using combined methods in the fight against weeds, diseases and pests, choosing seeds that meet the requirements of State standards for planting, planting it is necessary to optimize the terms, norms, depth, create the most optimal watering procedure during the growth period of the plant, and perform the actions of harvesting the crop in a short period of time, without damage, in a timely manner [1,2,3].

Our research was carried out in the central experimental area of the Southern Agricultural Research Institute in the area of Y.Omonov, Karshi district, in the conditions of light gray soils of Kashkadarya region.

The experiments consisted of two periods (early 01.05.10 and middle 20.25.10), three planting rates (4.0; 5.0 and 6.0 million units/ha) and one control (without fertilizer) and two mineral fertilizers ($N_{200}P_{100}K_{75}$ and $N_{240}P_{120}K_{90}$ kg/ha) was carried out.

According to phenological observations, it was found that the germination-heading period of winter rye varieties was 177-185 days on average in the early period of planting, and 158-166 days or 19-20 days in the middle period (Table 1).

Table 1
Influence of various factors on the earing period of winter rye varieties

№	Varieties	Sowing rate, million pieces/hectare	Standards of mineral fertilizers, kg/hectare	Early term (01-05.10)	Middle term (20-25.10)
1	«Ns Savo»	4,0	Control (No Fertilizer)	182	163
2			$N_{200}P_{100}K_{75}$	180	161
3			$N_{240}P_{120}K_{90}$	178	158
4		5,0	Control (No Fertilizer)	184	164
5			$N_{200}P_{100}K_{75}$	182	162
6			$N_{240}P_{120}K_{90}$	180	160
7		6,0	Control (No Fertilizer)	185	166
8			$N_{200}P_{100}K_{75}$	183	163
9			$N_{240}P_{120}K_{90}$	181	162
10	"Вахшская 116»	4,0	Control (No Fertilizer)	182	163
11			$N_{200}P_{100}K_{75}$	179	160
12			$N_{240}P_{120}K_{90}$	177	158
13		5,0	Control (No Fertilizer)	184	164
14			$N_{200}P_{100}K_{75}$	181	161
15			$N_{240}P_{120}K_{90}$	179	159
16		6,0	Control (No Fertilizer)	185	165
17			$N_{200}P_{100}K_{75}$	182	163
18			$N_{240}P_{120}K_{90}$	180	161

The effect of planting standards on the duration of the earing period of winter rye varieties was clearly felt.

That is, with the increase of the sowing rate (4.0, 5.0 and 6.0 million pieces/ha) it led to the prolongation of the earing period of winter rye.

For example, in the early term, 4.0 million units/ha, in the control (without fertilizer) option, the period of the earing period of winter rye variety "Ns Savo" is 182 days, when the rate of fertilizers $N_{200}P_{100}K_{75}$ and $N_{240}P_{120}K_{90}$ kg/ha is used, 180-178 days, planting 5.0

- at the rate of 6.0 million units/ha, compared to the norm of 4.0 million units/ha, the peak period is extended by 2-3 days.

In the medium term, the peak period at the rate of 4.0 million units/ha is 163 in proportion to the above; 161; It was 158 days.

It was found that planting was prolonged by 2-4 days at the rate of 5.0-6.0 million pieces/ha compared to 4.0 million pieces/ha.

These indicators were also observed in the winter rye variety "Вахшская 116" planted in the field experiment, early planting time, 182 days in the control (without fertilizer) version at the rate of 4.0 million pieces/ha, 179 days in the options with mineral fertilizer $N_{200}P_{100}K_{75}$ and $N_{240}P_{120}K_{90}$ kg/ha. 177 days, and at the rate of 5.0-6.0 million units/ha, it is extended by 2-3 days compared to the norm of 4.0 million units/ha.

In the medium term, planting at the rate of 4.0 mln. units/ha is the control (without fertilizer) and the peaking period in proportion to the mineral fertilizer standards 163; 160;

After 158 days, it was found that the planting was prolonged by 2-3 days at the rate of 5.0-6.0 million pieces/ha compared to the norm of 4.0 million pieces/ha.

There is a positive correlation (r=0.66) between the period of planting and the norms of winter rye during the earing period in the conditions of light gray soils (y = 0.171+180.7x2), this indicator. The effect of planting standards on the duration of the earing period of winter rye varieties was clearly felt.

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These indicators were also observed in the winter rye variety "Вахшская 116" planted in the field experiment, early planting period, 4.0 million pieces/ha, the period of earing in the control (without fertilizer) option is 182 days, mineral fertilizer $N_{200}P_{100}K_{75}$ and $N_{240}P_{120}K_{90}$ kg/ha 179 - 177 days in the used options, and 2 - 3 days in the norm of 5.0-6.0 million units/ha compared to the norm of 4.0 million units/ha.

In the medium term, planting at the rate of 4.0 mln. units/ha is the control (without fertilizer) and the peaking period in proportion to the mineral fertilizer standards 163; 160;

After 158 days, it was found that the planting was prolonged by 2-3 days at the rate of 5.0-6.0 million pieces/ha compared to the norm of 4.0 million pieces/ha.

In light gray soils, there is a positive (r=0.66) correlation between the period of sowing and the norms of winter rye during the earing period ($y = 0.171+180.7x^2$), and this indicator is also strong under the influence of mineral fertilizers, corresponding to the above ($y = 3.685+ 41.69x^2$) was found to have a positive correlation (r=0.85).

To conclude from the results of the research, under the conditions of light gray soils of Kashkadarya region, varieties of winter rye "Ns Savo" and "Вахшская 116" were planted for an acceptable period (01.05.10) at the rate of 5 million pieces/ha, with mineral fertilizers at the rate of $N_{200}P_{100}K_{75}$ kg/ha. when fed, normal growth and development of plants is observed, and the period from germination to earing takes 182 and 181 days, depending on the variety, and creates a basis for the formation of a high grain yield.

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