ACADEMICIA
An International Multidisciplinary Research Journal
(Double Blind Refereed & Peer Reviewed Journal)

DOI: 10.5958/2249-7137.2021.02340.5

THE IMPACT OF DIFFERENT FERTILIZER STANDARDS AND PLANTING TIMES ON GRAIN QUALITY OF AUTUMN SOFT WILLOW VARIETIES

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ABSTRACT

In this article, the norms, terms of planting and the amount of mineral fertilizers in the conditions of irrigated hungry and hungry soils of Kashkadarya region are related to the quality indicators of Autumn soft wheat grain of Yaksart, Gazgon, Bunyadkar and Krasnodarskaya-99 varieties. According to the results of the experiment, it was observed that with a delay in planting times and an increase in the number of planting Meyers, the content of protein and gluten in the grain decreased. The increase in fertilizer yield has led to an increase in the quality of grain, on the contrary.

KEYWORDS:*Term, Norm, Fertilizer, Protein, Gluten, Grain, Soil, Fertilizer, Intensive, Natura.*

INTRODUCTION

At present, increasing the efficiency of the network of grain cultivation in agriculture is an urgent issue, while the need for food, grain and grain products of the world population is growing without interruption and the energy resources are shrinking. In such conditions, changes in the development of grain cultivation systems should not only increase its yield, but also ensure the quality, stability of grain.

The ever-changing global weather and climate in the world is leading to a reduction in the yield from agricultural crops, including grain-bearing crops, both high and high-quality. Taking this into account, taking into account the diversity of soil and climatic conditions of the Republic, it is necessary to create varieties that are suitable for soil-climatic conditions of each region, fertile,

morning, drought and heat-resistant, high grain quality, and improve The Agrotechnology of their cultivation in different soil-climatic conditions of the Republic [5;4].

Taking into account the soil-climatic conditions of the irrigated lands of the Republic, a number of research works have been carried out by researchers on the implementation of the most optimal planting periods and norms, fertilization standards of autumn soft Willow varieties. [3].

Field experiments in 2014-2016 and 2016-2017 in the conditions of hungry soils of the kashkadarya branch of the scientific research institute of grain and leguminous crops in the field of experimental fields were conducted production test experiments.

New "Yaksart", "bunker", "Gezgon" varieties of softwood, which are recommended to be planted in the southern regions to study the yield of autumn softwood varieties and the duration of planting on the yield components, the effect of planting and fertilization standards, as well as "Krasnodarskaya-99" varieties that are cultivated in large areas, were obtained.

The area of the pike perch, where each option is located, is 100 m2 (the length of the rut is 41,7 m, eni 2,4 m), of which 50 m2 is taken into account. The number of options was 36 units, the experience was placed in 3 returns, the options were placed in 3 Yaros. Our research was conducted on generally accepted recommendations and methodological guidelines.

Taking into account the biological characteristics of autumn softwood varieties in the conditions of hungry soils of kashkadarya region, optimal planting times, norms and norms of mineral fertilizer have been determined. Autumn soft Willow varieties in these conditions:" Yaksart"," bunker"," Goose " are planted in the early term (1.10.), the norm of planting is 4.0 million hectares. the number of fertile seeds and mineral fertilizers increased by N180 p108k54 kg/ha, by 5,0 ml per hectare at an acceptable time period (20.10). grain yield norm of fertilized seeds and Fertilizers amounted to N210P147K105 kg/ha, planting norm at late period (10.11) was 6,0 million. it was found that higher grain yield and economic efficiency were achieved from autumn soft varieties when the grains were increased to the sprouted seeds and fertilizers were used in the norms of N210P147K105 kg/ha.

In the early (1.10) period, autumn soft Willow varieties were planted in the fields of 4.0 million fertile seeds Krasnodarskaya-99 varieties of Dogi, 13.7% of the protein content in Yaksart varieties, 13.4% in the creative varieties and 13.5% in the goose varieties, these indicators were calculated in accordance with the varieties in 5-6 million fertilized 13,9-13,8%, 13,5-13,9; 13,6-13,7 and it was determined that it was 13,8-14,1%.

Autumn soft Willow varieties in the medium term (20.10) it was determined that the amount of protein in the planted control (without fertilizer) variants was 13.7-14.0% in Krasnodarskaya-99 varieties, 13.8-14.3% in Yaksart varieties, 14.2-14.4% in the builder varieties and 14.3-14.5% in the goose varieties. In the field of experiment, the norms of mineral fertilizers were used on the account of n180p108k54 kg/ha, the protein content of bug'doy Dogi in the pike perch is high, that is, in Krasnodarskaya-99 varieties 14,3-15,1%, in Yaksart varieties 14,5-15,3; In accordance with the norms of varieties and planting, the amount of protein in the grain grown in the stalls is increased (up to N210P147K105 kg/ha), while in the creative varieties it is 14,6-15,4 and in the goose varieties it is 14,7-15,6%. the norm of fertilizers is increased (up to N210P147K105 kg / ha). 15,2-15,8%, 15,3-16,1; 15,6-16,3 and it was noted that it was 15,7-16,8%.

Autumn varieties in the evening (10.11) are planted in 4,0, 5,0 and 6,0 million hectares of sprouted seeds, the amount of protein in cereals grown in fertilizer unused (controlled) stalls Krasnodarskaya-99 varieties 13,5-13,4 %, Yaksart varieties 13,5-15,6%; in the builder varieties 13,7-13,5 and in Goose varieties 13,8-13,9%, in the when applied to/from krasnodarskaya-99 varieties, the protein content in the cereal is 13,6-14,4%, in yaksart varieties 13,5-14,5%, in accordance with the above; 14,0-14,5 and 14,2-14,7% in the wild varieties, mineral fertilizers in these conditions n210p147k105 kg/kg of the amount of protein in the grain grown in the stalls in proportion to the varieties 14,6-15,6%, 14,6-16,1; 14,8-16,3 and it was 14,9-16,8%.

In our experiments, on the effect of sowing periods and norms on the amount of gluten contained in cereals, the same legality observed in protein was demonstrated. In the Krasnodarskaya-99, Yaksart, creative and Goose varieties of autumn soft Willow studied, the amount of gluten in the grain has changed significantly, depending on the duration and norms of planting.

For example, in the early term (1.10) and 4,0; 5,0; 6,0 million units of control (without fertilizer) planted in seedling, the amount of gluten in pike-perch, in Krasnodarskaya-99 varieties 21,9-22,3%, in Yaksart varieties 20,7-22,6; in the builder varieties 20,9 -22,4 and in Goose varieties 22,4-23,7%, when these 23,5-25,2%, 24,0-25,6 in yaksart variety; 24,6 -26,1 in bunyadkar variety and25,2-26,4% in the goose Variety, the amount of gluten in the grain content obtained in the pike perch given the fertilizer norm N210P147K105 kg / in proportion to the varieties 26,3-28,0; 27,2-28,3; 27,5-28,6 and it was determined that it was 27,9-29,2%.

Autumn soft Willow varieties were planted in 4,0, 5,0 and 6,0 million hectares of fertile seeds for optimal periods (20.10), the amount of gluten in non –fed-controlled variants was 21,2-23,5 %, in accordance with the norms of planting in Krasnodarskaya-99 varieties, 21,7-23,8% in Yaksart varieties, 22,0-23,4% in creative varieties and Within this period and norms, the amount of gluten in the grain grown on the pike perch, which was planted and fed to N180P108K54 kg/ha, was high, which was 24,8-27,0% in Krasnodarskaya-99 varieties, 25,1-26,8 in Yaksart varieties, 26,1-26,9 in creative varieties and 26,8-28,0% in Goose varieties. Increasing the dietary norm (N210P147K105 kg/ha) ensured that the amount of gluten in all variants was relatively higher. The amount of gluten in cereals grown under these conditions was 26,5-29,2% in Krasnodarskaya-99 varieties, 27,4-29,5% in Yaksart varieties, 27,7-29,8% in creative varieties and 28,6-30,2% in Goose varieties.

In our experiments, the sowing periods and norms for the amount of gluten contained in the grains of autumn soft Willow varieties grown together affected. For example, the seeds of autumn soft varieties were planted in late periods (10.11), 4,0; 5,0 and 6,0 million unvchan seeds, the amount of gluten in non-fertilizer control options was determined to be 20,7-20,5% in accordance with the norms of planting, 21,6-21,2% in Yaksart varieties, 21,8-21,6% in the builder and there was a decrease with an increase in the standards.

1-TABLETHE DURATION OF PLANTING, THE NORM AND THE EFFECT OF FERTILIZERS ON THE TECHNOLOGICAL QUALITY INDICATORS OF AUTUMN SOFT WILLOW VARIETIES GRAIN (PLANTING TIME 20 OCTOBER, AVERAGE 2014-2016 YY.)

№	Fertilizer norm	Planting norm, million pieces	Name of the varieties	In the composition of cereals		Glass of grain-Simon league level,%	Don natura-si, g/l	
				Gluten, %	Gluten, %			
1	Control)	4,0	Krasnodarskaya-99	13,9	21,2	49	759	92
2			Yaksart	13,8	21,7	48	762	95
3			Founder	14,2	22	51	765	96
4			Sunflower seedelon seed	14,3	23,8	54	770	94
5		5,0	Krasnodarskaya-99	13,7	22,7	51	765	96
6			Yaksart	14,3	23,3	53	768	95
7			Founder	14,4	22,8	55	771	93
8			Sunflower seedelon seed	14,5	25,1	56	778	88
9		6,0	Krasnodarskaya-99	14	23,5	53	764	93
10			Yaksart	14,2	23,8	54	766	94
11			Founder	14,3	23,4	55	769	89
12			Sunflower seedelon seed	14,4	24,9	57	771	86
13	$N_{180}P_{105},K_{54}$	4,0	Krasnodarskaya-99	14,3	24,8	54	776	87
14			Yaksart	14,5	25,1	57	776	87
15			Founder	14,6	26,1	58	780	86
16			Sunflower seedelon seed	14,7	26,8	60	784	82
17		5,0	Krasnodarskaya-99	14,5	26,1	55	781	86
18			Yaksart	15	26	59	782	84
19			Founder	15	26,6	62	785	84
20			Sunflower seedelon seed	15,3	27,2	64	789	80
21		6,0	Krasnodarskaya-99	15,1	27	60	783	88
22			Yaksart	15,3	26,8	63	784	89
23			Founder	15,4	26,9	65	786	86

24			Sunflower seedelon seed	15,6	28	66	790	84
25	N_{210} P_{147},K_{105}	4,0	Krasnodarskaya-99	15,2	26,5	66	789	82
26			Yaksart	15,3	27,4	68	790	81
27			Founder	15,6	27,7	72	793	80
28			Sunflower seedelon seed	15,7	28,6	73	797	76
29		5,0	Krasnodarskaya-99	15,4	28,3	69	794	78
30			Yaksart	15,6	28,9	72	796	77
31			Founder	16	29,1	75	801	77
32			Sunflower seedelon seed	16,2	29,7	77	805	75
33		6,0	Krasnodarskaya-99	15,8	29,2	72	793	82
34			Yaksart	16,1	29,5	74	794	81
35			Founder	16,3	29,8	76	799	81
36			Sunflower seedelon seed	16,8	30,2	77	800	79

But, when the feeding was carried out, on the contrary, it was noted that the amount of gluten contained in the grain increased not depending on the norms of planting. That is, when the feeding was carried out with N210P147K105 kg/ha, the amount of gluten was 25,0-27,1% in Krasnodarskaya-99 varieties, 25,4-27,0 in Yaksart varieties, 26,6-27,4 in the builder varieties and 26,5-27,5% in the goose varieties. It is known that since the swelling of the grain is inextricably linked with the amount of protein and gluten contained in it, it is also one of the important quality indicators. In our research, in the autumn acceptable terms (20.10) and in the norm, the swelling of the grain grown on the feedstock with n210p147k105 kg/ha, sown in the fertile seed of 5.0 million units, amounted to 69% in Krasnodarskaya-99 varieties, 72 in Yaksart varieties, 75 in the creative varieties and 77% in the goose varieties.

When analyzing the IDK indicators of the autumn soft Willow Krasnodarskaya-99, Yaksart, creative and Goose varieties studied in our research, it is determined that when planted on October 1 and November 10, Class III, that is, from 0 to 15, Hard unsatisfactory and from 105 to 125 weak unsatisfactory, as well as solid satisfactory quality indicators belonging to Class II (from 20 to 40). In our experiments, autumn soft Willow varieties Krasnodarskaya-99, Yaksart, bunker, Goose in the early term (1.10), 4,0; It was observed that the grain quality indicators were met with the demand of Grade II (from 80 to 100) in the options planted in 5,0 and 6,0 million seeds. It should also be noted that against the background of N210p147k105kg/ha Yaksart, geese in this term. It was found that the quality of grain in the variants planted in the cultivar varieties 5,0-6,0 million sprouts responded to the demand ("good") for Grade I (from 40 to 75).

It was shown that these varieties can be planted in early terms. When the autumn soft Willow varieties shown were sown in the above norms in late (10.11) terms, grain was obtained, whose

quality indicators meet the demand of Grade II. Bunda, when these varieties are sown in early terms, it is possible to observe a decrease in grain quality indicators.

It was observed that autumn soft Willow varieties Krasnodarskaya-99, Yaksart, bunker and Goose were planted in the medium term (20.10), 4,0; 5,0 and 6,0 million seeds, fertilizer was not used (control), and quality indicators of cereals grown on the pedigrees applied to N180P108K54 kg/II grade (from 80 to 100) Meet the requirements of weak satisfactory. It was observed that autumn varieties were planted in the period indicated 5,0 million units of sprouted seeds, and grain quality indicators grown on feeders fed with N210P147K105 kg/ha were observed to meet the "good" demand of I-grade (40 to 75), IE gluten quality. It was found that it is important to properly conduct the nav agrotechnics in cases where the biological characteristics of each variety are due, and at the same time, to correctly specify the dates of their planting, the norms and feeding.

One of the most important indicators determining the quality of autumn soft wheat varieties, which are grown in different soil-climatic conditions of the Republic, is its nature, which determines the fullness of the grain and the value of the mill. Accordingly, grain nature is included in the list of state standards as one of the indicators that determines its quality.Fertilizer of our experiments is not used, planting 4,0; In accordance with the norms of planting in Krasnodarskaya-99 varieties 766-773 g/l, 769-777 in Yaksart varieties, 771-779 in creative varieties and 775-782 g/l in Goose varieties, N180P108K54 kg for feeding plants in the period and norms of this planting was established. when applied to/in accordance with the varieties, these indicators are used 784-787 G/L, 787-790 , 786-791 and 790-795 G/L, when the fertilizer norm is increased (to n210p147k105 kg/in) grain nature Krasnodarskaya-99 varieties 795-797 G/L, yaksart varieties 798-802, It was 801-806 G/l in the creative variety and 805-811 g / L in the goose variety. As a result of the research carried out in the field of experiment, it was observed that in the medium term (20.10), the indicators of autumn soft Willow varieties in the fertilizer unused (control) variant planted were lower than those of the variants in which the feeding was carried out. Bunda, the nature of the grown cereals Krasnodarskaya-99 variety 759-764 g/l, in Yaksart 762-766, in the builder 765-769 and Goose navidv 770-771 g/l, in the specified planting time and norms, the nature of the grain grown in the fields fed with plants N180P108K54 kg/l Krasnodarskaya-99 variety 776-783g/l. When used in Yaksart varieties 776-784, in the builder varieties 780-786, and in Goose varieties 784-790 g/l, the norm of fertilizers is increased (to N210P147K105 kg/l), these indicators are higher, in Krasnodarskaya-99 varieties 789-800 g/l. 790-794 in Yaksart varieties, 793-798 in creative varieties and 797-800 g/l in Goose varieties, it was determined that.

In conclusion, in the conditions of irrigated acreous soils of Kashkadarya region, the most favorable planting period for the Krasnodarskaya-99, Yaksart, creative and Goose varieties of autumn soft Willow is October 20, the norm is 5,0 million fertile seeds, when mineral fertilizers are used in the norms N210P147K105 kg/ha, the highest and highest quality grain yield (protein 15,4-16,2 it was found that the vitreous content was 69-77%, the grain nature was 744-805 G/L, the unit of IDK was 78-75, which provided cultivation to the 1st Class, that is, "good"). When autumn soft Willow varieties were planted early (1.10) or late (10.11) from the acceptable planting time and standards, it was taken into account that the quality indicators shown in the grain decreased.

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