

ERZHANOVA K.M., ZHOLAMANOV K.K., SALPIEV R.

Kazakh National Agrarian University, Almaty

INFLUENCE OF HERBICIDES ON WEED PLANTS ON CROPS OF THE SPRING WHEAT IN THE CONDITIONS OF THE WESTERN KAZAKHSTAN

Annotation

Big role in raising crop yields correct plays plant protection organization. Science and practice proved that pests, diseases and weeds annually reduce yields up to 25-30%, and sometimes it happens that harvested becomes unfit for food purposes. The results of the effectiveness of the impact of new herbicides on infestation spring wheat in the conditions of Western Kazakhstan.

Keywords: spring wheat, weeds, herbicides, crop yields

In recent years, many households due to the difficult financial situation drastically reduced the amount of work for the protection of plants, which led to a deterioration in the phytosanitary conditions, lower yields, seed quality and marketable produce crops.

The main reason for such a low yield and its instability is not the elaboration of measures to combat weeds. In small and medium-sized farms because of ignorance of elementary methods of cultivation, agrotechnology disrupted cultivation of some crops. Farmers do not know the biological features of weeds and at the same time, the biological differences of agricultural crops and as a result violated the conditions of their growth.

One of the main areas of research is the challenge of improving crop productivity by controlling weeds. At the present time the productivity of spring wheat in small farms and production facilities has decreased significantly. The reason is that it fails to carry out agronomic work on agricultural crops and not properly use the system application of herbicides.

As a result of research at home and abroad, it was found that when a large contamination of crops with weeds, the amount of protein in food crops (corn), sugar (sugar beet) and oil (industrial crops, etc.) is reduced by 10-25% [1].

Accumulated over many years of weed seeds in the soil have forced farmers to apply the necessary measures to deal with them on spring wheat.

In wheat Northern and Central Kazakhstan are the most harmful field sow thistle, field bindweed, couch grass and other perennial weeds out of annuals - wild oats, green foxtail and dove, barnyard grass and others.

For controlling weeds, especially wild oat field that sprouts after sowing spring wheat, including millet weeds at the 2-3 leaf period effectively apply Topic 080 a.e. 0.4-0.5 l / ha and Super Puma 100.10% a.e., at a rate of 0.6-0.9 l / ha [2, 3].

Many species of weeds, especially perennial and quarantine cannot be destroyed only by agricultural methods, so the spring wheat in the system of weed control is one of the most important elements - the use of herbicides [4].

Research of many scientists proved that the reduction of spring wheat productivity coefficient depends on the severity of weeds.

In the context of Western Kazakhstan output high and constant production of the main crops - spring wheat, is hampered by ineffective pest, diseases and weeds. Our research focuses on the use of new herbicides in connection with a high degree of harmfulness of weeds in the area.

During the study on arable land from annual monocot weeds found early spring wild oat (*Avenafatua*); perennial dicotyledonous weeds - thistles field (*Sonchus arvensis*), field bindweed (*Convolvulus arvensis*) of rhizomatous - quackgrass (*Elytrigiarrepens*).

On spring wheat for weed herbicides applied new foreign Aesthete 905 ae (ether acid 2,4-D, 905 g / l), Super Puma 100, ae (fenoxaprop-P-ethyl (100 g / l) + safenermefenpyr-diethyl (27 g/l) Axial, ae (pinoxaden + antidote klokvintosemexyl, 45 + 11.25 g / l). When compared one for the control (no herbicide) found reduction in the number of weeds.

Our results demonstrated that the combined application of herbicides Puma super 100 ae, ae 905 + Aesthete effectively deters infestation of spring wheat (Table 1).

Table 1 - Effect of herbicides on infestation of spring wheat

№	Variant	Wheat oat		Field bind weed		Falsew heat		Corns owthistle	
		exm/m ²	influcence, %	exm/m ²	influcence, %	exm/m ²	influcence, %	exm/m ²	influcence, %
1	Control (not herbicides)	6,9	-	8,8	-	5,1	-	6,2	-
2	Axial a.e., + Aesthete 905 a.e., (0,7-1,0 l/ha+ 0,4-0,6 l/ha)	3,9	43,5	3,4	63,2	1,3	74,6	2,4	61,3
3	Puma super 100 ae., + Aesthete 905 a.e., (0,6-0,9 l/ha+ 0,4 - 0,6l/ha)	2,0	70,0	3,7	58,0	0,7	86,3	1,9	69,4

The constituent elements of crop affecting the overall yield, we determined that the number of grains per spike, grain weight per spike and 1000 seeds when making various herbicides changed differently.

According to the research on the control variant (without herbicides) yield was 13.9 t / ha, with the introduction of herbicide options: Axial ae, ae + Aesthete 905 (0.7-1.0 l / ha +0,4-0,6 l / ha) above 3.8 kg / ha, and Puma super100 ae, ae 905 + Aesthete at - 4.2 kg / ha, compared with the control embodiment (Table 2).

Table 2 - Effect of herbicides on the yield of spring wheat

Variant	Grain number in 1 ear, pieces/m ²	Mass 1000 seedgrains, g	Massgrain in 1 ear, g	Yield, centner/h ^a
Control (not herbicides)	30,9	35,5	0,69	13,9
Axial a.e., + Aesthete 905 a.e., (0,7-1,0 l/ha+0,4-0,6 l/ha)	31,6	35,3	0,72	17,7
Puma super 100 a.e., +Aesthete 905 a.e., (0,6-0,9 l/ha+0,4	32,7	35,8	0,80	18,1

- 0,61/ha)				
------------	--	--	--	--

Conclusion: As can be seen from Table 2, the control variant (without herbicides) yield was 13.9 kg / ha, which is lower than the options, where herbicides were added, yields ranged 17.7-18.1 t / ha.

Thus, as a result of research in the face of Western Kazakhstan on spring wheat, the use of herbicides significantly reduced the number of weeds, and influenced the increase of productivity.

REFERENCES

1. Abdullayev K.K., Mustafayev B.M. "Modern agricultural technologies crops in the Northeast - Kazakhstan." - Pavlodar , 2005 – p.202
2. Mozhaev N.I. Where Spikes field, were weeds // Arguments and Facts Kazakhstan: newspaper. Almaty , 2007. - № 56 (127). - p.3
3. Tomilov V.P., Shin V.P. Weed control in the virgin lands. -M.: Kolos , 1964. – p. 96
4. Deryanova E.G., Yield and grain quality of spring wheat depending on use of the intensification of production. Mater. II-nd Intl. conf. Young Scientists "Actual problems of agriculture and crop production." - Almatybak 2005. - P.32 -34

Ержанова К.М. – а.-ш.ғ.к., доцент
Жоламанов Қ.К. – а.-ш.ғ.к., доцент
Салпиев Р. – 2-ші курс магистранты

Қазақ ұлттық аграрлық университеті, Алматы қаласы
БАТЫС ҚАЗАҚСТАН ЖАҒДАЙЫНДА ЖАЗДЫҚ БИДАЙ ЕГІСТІГІНДЕГІ АРАМШӨПТЕРГЕ
ГЕРБИЦИДТЕРДІҢ ӘСЕРІ

Резюме

Батыс Қазақстан аймағы жағдайында жаздық бидай егістігінде арамшөптерге жаңа гербицидтердің әсерлерінің нәтижелері мақалада келтірілген.

Ержанова К.М. – к.с.-х.н., доцент
Жоламанов К.К. – к.с.-х.н., доцент
Салпиев Р. – магистрант 2 курса

Казахский национальный аграрный университет, Алматы

ВЛИЯНИЕ ГЕРБИЦИДОВ НА СОРНЫЕ РАСТЕНИЯ НА ПОСЕВАХ ЯРОВОЙ ПШЕНИЦЫ
В УСЛОВИЯХ ЗАПАДНОГО КАЗАХСТАНА

Резюме

В статье приведены результаты эффективности влияния новых гербицидов на засоренность посевов яровой пшеницы в условиях Западного Казахстана.

Ержанова К.М., к.с.-х.н., доцент кафедры Агротехнологии производства продукции растениеводства, КазНАУ
Жоламанов К.К., к.с.-х.н., доцент кафедры Агротехнологии производства продукции растениеводства, КазНАУ
Салпиев Р., магистрант 2 курса кафедры Агротехнологии производства продукции растениеводства, КазНАУ