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# INFLUENCE AND ADAPTATION OF WHEAT (SULTAN VARIETY) TO HERBICIDES

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**ABSTARCT:**

**We use herbicides in the cultivation of agricultural plants; chemical preparations are used in the fight against weeds. Herbicides are divided into inorganic and organic according to their chemical composition, herbicides that selectively affect and affect depending on their exposure to crops and weeds. Herbicides are used before planting, during planting, during the period of growth and after harvesting, depending on the specifics of the crops and foreign grass. They are sprinkled on top and by the way of a ribbon. Herbicides, which are sprinkled on the leaf before planting, are mixed in the soil with boron Wormwood. At the time of planting and during the growth period, they are sprinkled with a ribbon method or top. [1] Biotic factors (dew, wind, temperature) are also important in the use of herbicides. [2]**

**KEYWORDS: herbicide, adaptation, glaxifop-P-methyl, convergent, divergent, coefficient of variability, agro technical action.**

## INTRODUCTION:

The type and concentration of herbicide is important when using herbicides. Proper application of herbicides leads to high concentrations, violation of processing times, incorrectly selected herbicide species, soil and soil environment, pollution of water bodies, destruction of plants and animals. It is important to find the necessary concentration of herbicide.

The determination of herbicide activity was determined by comparing the morphological characteristics of seedlings. In laboratory conditions, several experimental schemes are used to test the effect of herbicide on growth stimulants.

## OBJECTS AND METHODS OF RESEARCH:

In the experiment, more than 30 seeds were sown for each experiment, and the effectiveness of the experiments was determined by measuring the length and mass of the plant seedlings. In the experiment, 8 morphological signs of seedlings (total length, number of side branches, number of shoots in the main branch, number of shoots in the side branch, number of overall shoots, number of fleas in the main branch, number of fleas in the side branch, total number of fleas) were analyzed.

To determine the effectiveness of the experiment, it was determined by measuring the length and mass of the sleeves on which seedlings should be studied. The effect of herbicide was determined by the average ratio of length and mass of seedlings in each dose in the following formula. (1,2)

$$x = \frac{l}{L} \cdot 100\% \quad (1)$$

x– impact indicator by length(%);
l– The average length of the experimental part (CM);
L- Average length of control experience (CM);

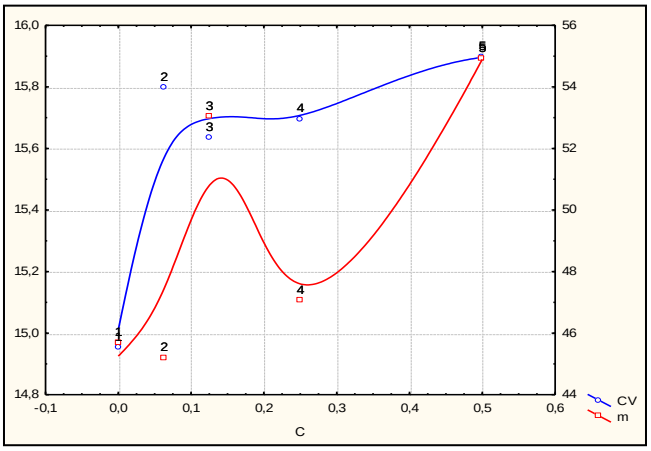
$$y=\frac{m}{M}\cdot 100\% \quad (2)$$

y – Indicator of the inhibitor effect on the mass (%);
m – The average mass of the experimental part (gr);
M- Average length of control experience (CM);
The processing of statistical data was carried out in accordance with the methods adopted by Plokinsky (1970), Zaitsev (1991), using the statistical and Excel software package.

**RESULTS AND DISCUSSION:**

we can know the negative or positive effects of herbicides by comparing the herbicide-treated experiences to the initial (without herbicide) experience. Determination of the activity of Galaxifop-P-methyl was determined by comparing the morphological characteristics of the seedlings of the Sultan's variety. In field conditions, concentrated solutions of Galaxifop-P-methyl 500 mg / l, 250 mg / l, 125 mg / l, 62.5 mg / l were used.

In the seedlings treated with Galaxifop-P-methyl, there was a change in the morphological signs of the plant. The total height of the seedlings gave a lower indicator of variability than other morphological signs of the plant. This means that the total height of the seedlings is more resistant to herbicide than other morphological signs of the plant. The total height of the seedlings was observed in the experiment with a concentration of 500 mg/l, the highest figure (54, 9 CM) and the lowest (45.19) figure in the experiment with a concentration of 62, 5 mg/l. In the experiment, the coefficient of variability in the total height of the seedlings changed disproportionately. (Picture 1)




1-the total length of the plant.
C herbicide concentration
CV variable coefficient
m the average value of the plant length
1) Initial Experience 2) 120 mg /l, 3) 240 mg /l 4) 480 mg /l 5) 720 mg /l

The number of side branches of seedlings was high in the herbicide-free experiment (7,7). The most favorable herbicide concentration for the good development of side branches is 125 mg/l. The average value of the number of side branches (m) in this concentration was 7,6, the coefficient of variability was 15,6%.

The negative effect of herbicide can also be observed in the number of fleas on the main branch. A low coefficient of variability was observed in the experiment without the use of herbicide (17.4 %). The use of herbicide causes a change in the coefficient of variability in the number of burrs in the main branch and an increase in the indicator in different concentrations. A high indicator of the average value of the number of burrs in the main Horn was observed in a concentrated experiment with 250 mg/l (10,5) (Picture 3). The average number of leaves in the main branches increased in the initial experiments with an increase in herbicide concentration, but a lower indicator was observed in the high-concentration experiment (500 mg/l). Adversely affected the formation of leaves on

the main branches, when the amount of herbicide 500 mg/l.

The number of buds on the main stem, the number of fleas on the main stem are genotype indicators. Their formation is determined mainly by the genotype. The total length, the number of side branches are biological indicators. Their high rigidity and relatively low variability are typical for species in general. The number of shoots on the side stem, the number of leaves on the side STEM are ecological-biological or structural indicators. They can be used to assess the condition of the system.

**CONCLUSION:**

The study of the morphogenetic features of wheat varieties, their adaptability to the external environment and the ontogenetic characteristics of the plant allows you to choose the right varieties that can adapt to the external environment. And this, in turn, will help to get a reliable harvest.

The use of herbicides in connection with agrotechnical measures reduces the weeding of the soil, and the cost of weeding is reduced, and the cost of production is cheaper. More or less studied characteristics are characterized by a clear strategy for protecting against stress. With increased herbicidal stress, the development of individual characteristics first decreases, and then increases. This indicates a good adaptability of the species (or variety) to chemical stress.

In the experiment, we observed various ontogenetic tactics in which the total length of the plant converges, the number of side branches diverges-converges, the number of shoots (on the main branch) diverges-diverges, the number of shoots (on the side branch) diverges-diverges, the number of leaves (on the main branch) diverges-converges. Convergent and divergent-convergent characteristics are a sign of the species ' adaptation to chemical (herbicidal) stress. This property stabilizes, and if it stabilizes with increasing averages, that's fine. For example, the number of side shoots is a sign by which it behaves. If there is a need to use a herbicide against weeds, the optimal concentration (in our experience) is 0.5 (it is stabilized at relatively high values of the average indicator).

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