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Research Article

EFFECTIVENESS OF FOREIGN AND LOCAL DEFOLIANTS ON THE OPENING OF CUPS

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ABSTRACT

The foreign Ento-Dephol showed a high result when cotton causes open 30-40% while using 0.200 litres of defoliation for each hectare in order to defoliate cotton artificially.7.0 litres use of defoliation gave better result regarding the other alternatives.

KEYWORDS

Types of defoliation and defoliants, cotton leaves dry and semi-dry leaves.

INTRODUCTION

It is known that our country is located in the northernmost part of the globe among the cotton-growing countries of the world, and hot or rainy weather in the spring months is late, and cool and

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rainy days in the autumn months begin very early [1-3]. Therefore, the cultivation of raw cotton requires the use of advanced technologies and diligence. Therefore, defoliation of cotton used for early harvest is important to ensure that the cotton buds open as soon as possible. In recent years, several defoliants have been registered with the State Chemical Commission for cotton defoliation and approved for use in production [4-7]. For the most part, these are local preparations that are now widely used in production. However, since the active substance of these local defoliants consists mainly of chlorate salts, a rapid, i.e. strong, effect on the plant is observed. To reduce this problem, in recent years several drugs have been imported into our country and abroad that have a mild effect on cotton, belonging to the phenylurea group, consisting of thidiazuron-diuron. Testing the effectiveness of these new foreign defoliants is one of the most urgent problems today [8-11].

RESEARCH METHODOLOGY

According to current tasks, in 2018-2020, our research will be carried out at the Scientific and Experimental Station of the Research Institute of Cotton Growing, Seed Growing and Agricultural Technology of the Kuva district of the Fergana region. Groundwater was carried out in soil conditions to a depth of 1.6-1.8 meters [12-17]. In the experiment, 8 variants of each variety were obtained and placed in 3 repetitions.

Experimental variants of cotton varieties C8290 and C6775 were used at opening times of 30-40% and 50-60% of the established norms of the above defoliants and their optimal norms and terms of application were determined. bread machine" (1981), "Methodology for conducting field experiments" (2007) and "Methodology for testing cotton defoliants" (2007), adopted by the State Chemical Commission of the Republic of Uzbekistan [18-21].

RESEARCH RESULTS AND DISCUSSION

According to the results of phenological observation and analysis, the S-8290 cotton stalks cultivated on the meadow soils of Ferghana are in the control variant for defoliation (not defoliated) at 30-40% of the opening time. After 14 days, the number of open cocoons was 67.3%, half-open cocoons 1.8%, and cocoon opening process 32.5%.

As a guideline, the number of holes opened 14 days after defoliation in the studied variant using liquid CMD defoliant at a rate of 8.0 l/ha in this area was 79.9%, half-open 1.5%, opening rate 43.2%, which is 10.7% higher than in the control. The highest results on the effect of defoliants on the opening of cotton buds were obtained when using the defoliant EntoDefol at a dose of 0.200 l/ha, the opening of buckets was 85.8%, the half-opening was 1.4% and the opening rate was 50.0%, which is 17.5 % higher than in control.

Also in the variants with the standard defoliant FanDEF-excellent 7.0 l/ha, cocoon opening was 82.9%, semi-open 1.0%, and the opening rate was 47.6%. % higher than the standard (Liquid XMD

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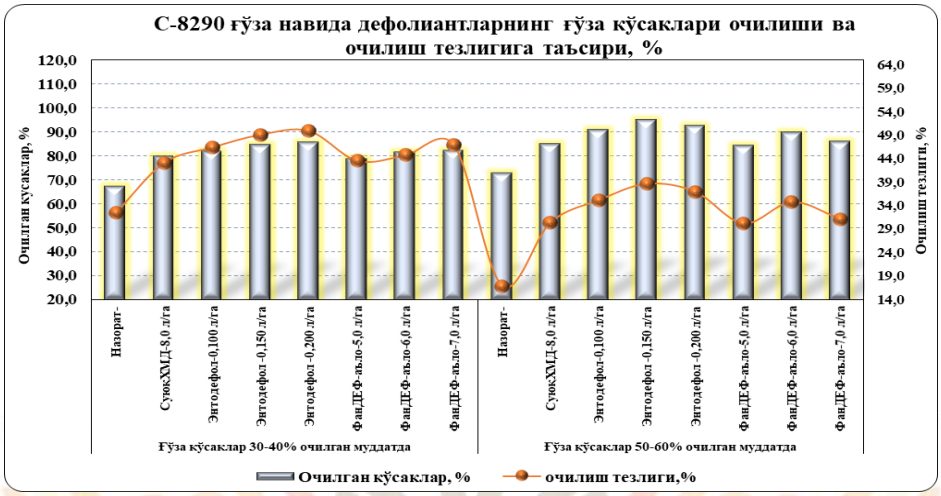

Figure 1. Effect of defoliants on the opening and opening speed of cotton buds in the cotton variety C-8290.

8.0 l/ha), the pore opening was 3.0% higher and the opening rate was 4.4% higher.

Against the second background of experience, i.e. in the period of 50-60% opening of S-8290, the results of the analysis showed that the number of openings after 14 days in the control variant was 73.1%, half-open 1.0%. the percentage of opening of the bags was 16.9%, which is confirmed by the analysis. According to the experimental system, in the variant using the standard (Liquid XMD 8.0), there were 85.0% opened cocoons, 0.9% half-opened and 30.4% opening rate. The best results in the experimental variants were noted on the EntoDefol defoliant variant using a high dose of 0.150 l/ha, the open rate reached 95.1% after 14 days of defoliation, the open ratio was 38.7%. During the same period, the cup opening rate increased by 21.8-8.3%, respectively, compared to the control and standard (Liquid XMD 8.0). Opening of cocoons was achieved with high efficiency on the defoliant variant FanDEF-excellent at a rate of 6.0 l/ha and a degree of opening of 31.2%. During this period, the cup opening rate increased compared to the control and standard (Liquid XMD 8.0), by 14.3-0.8%, respectively. It should be noted that the opening and speed of cotton variety S-8290 increased slightly with the use of EntoDefol defoliant at a high rate of 0.200 l/ha at an opening of 30-40%. In the subsequent period (50-60%), high results were observed when using the defoliant EntoDefol at an average of 0.150 l/ha. It can be concluded that low levels of defoliants also have a positive effect on the morphophysiological maturity of cotton buds [22-26].

Also in the experiment, the number of cotton buds of the second grade C-6775, which opened after 14 days in the background control variant with opening times of 30-40% and 50-60%, respectively, was 64.3-71.9%. half of the openings

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were 3.5%-1.5%, and the section opening ratio was 30.2-19.8%.

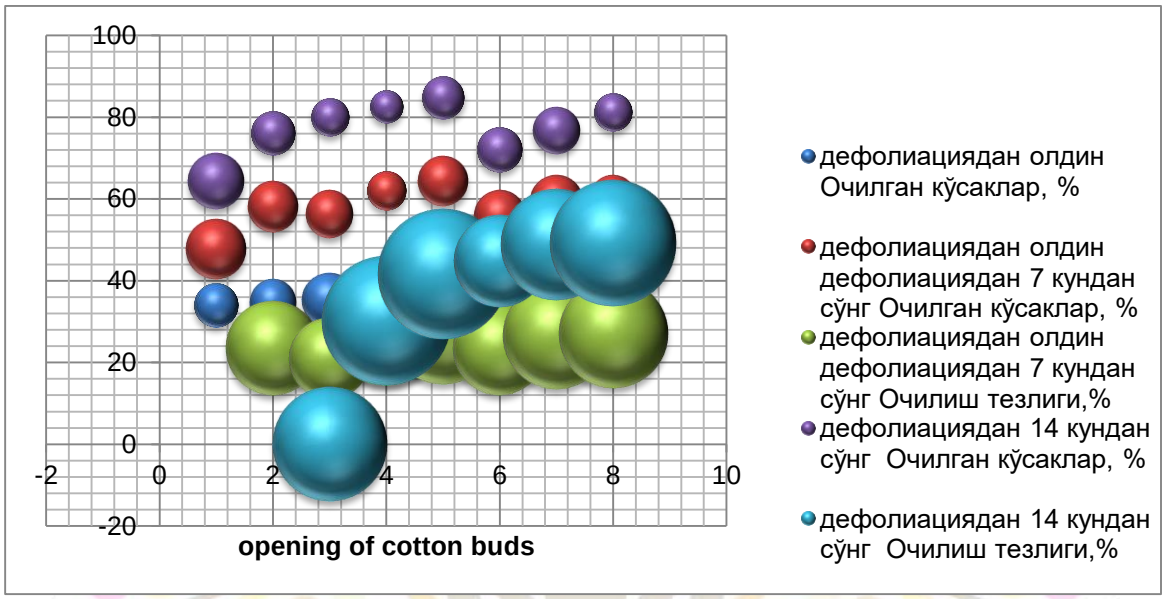

Figure 2. Influence of defoliants on the opening and opening speed of cotton buds in the cotton variety C-6775

In the variant with the use of the standard defoliant (Liquid XMD 8.0), in accordance with the opening time of cotton buds, open buds were 76.2-85.1%, half-opened buds - 2.1-0.7%, and the opening rate was 41.6-31 .7. % and the difference in the opening speed with the control was 11.4–11.9%. High results in the experiment were 0.200-7.0% of the defoliant EntoDefol and FanDEF-excellent in proportion to the opening time of the cups (30-40; 50-60%); Obtained from the used options at the rate of 0.150-6.0 l/ha. This means that the number of cocoons opened 14 days after defoliation is 84.8-81.3%, respectively; 94.2-89.9%, disclosure rate 49.3-48.2%; 40.6-34.8%, semi-open cups 2.0-1.6%; 0.9-1.1%. During this period, the opening rate of the cups was higher than the control and the standard (Liquid CMD 8.0 l/ha) and, accordingly (30-40%) 19.1-7.7%; 13.9-2.5%, (50-60) 20.8-15.0%; Increased by 8.9-3.1%.

FINDINGS

Thus, the effect of defoliants on the opening of cotton buds was effective in both varieties. In other words, cotton varieties S-8290 and S-6775, which are being tested, are most open to cotton with a defoliation period of 30-40 and 50-60%. by 0.150-0.200 l/ha and defoliant FanDEF-excellent by 6.0-7.0 l/ha. Thus, to obtain a fabulous, high-quality cotton crop from cotton varieties C-8290 and C-6775 cultivated in the pasture soils of the Fergana region, and to increase the efficiency of defoliation when they are adapted to manual and

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machine harvesting, use the new defoliants EntoDefol and FanDEF-excellent to get a quality crop without increasing the cost:

- Cotton varieties C-8290 and C-6775 have defoliant EntoDefol at a dose of 0.200 l/ha and defoliant FanDEF-excellent at a dose of 7.0 l/ha with an opening of 30-40%;
- it is recommended to use defoliant EntoDefol at the rate of 0.150 l/ha and defoliant FanDEF-excelling at the rate of 6.0 l/ha at 50-60% opening of cotton varieties.

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