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Efficiency of Herbicides against C. Campestris in Carrot Fields

B. Nasirov [1]
A. Ruziyev [2]
A. Norbutaev [3]

[1] Professor of Tashkent State Agrarian University

[2] Independent researcher of Tashkent State Agrarian University

[3] Assistant teacher of Tashkent State Agrarian University

Abstract: The experimental results of the effect of Pivot, 10% s.e.c herbicide at 0.5 L/ha, 1 L/ha and 1.5 L/ha and the recommended solutions of Treflan, 24% s.e.c. at 4 l/ha were tested against the carrot dodder are described. Experiments were conducted at the small-plot experimental station of Tashkent State Agrarian University

Keywords: Carrot, dodder, control, pivot 10% s.e.c., treflan, 24% s.c., standard, herbicide, economic efficiency.

Introduction

In many countries of the world, in China, weed control is done by surface tillage and herbicides are applied together with planting potatoes and vegetables, or during the growing season, in the USA and India, deep plowing (32-35 cm) once every 2-3 years and Application of herbicides before planting, along with planting and during the growing season of vegetables has been found to be effective. The use of herbicides is the most effective way to keep potato and vegetable fields free from weeds, creating favorable conditions for crop development and increasing productivity. However, repeated use of one herbicide in one field leads to the proliferation of weed species that are resistant to this drug. Based on this, the use of herbicides in the carrot fields in Tashkent region is considered a very urgent issue.

Weed control (V.Kondratyuk, Z.Tursunkhojaev, M.Muhammadjonov, Q.Mirzajonov, B.Bakhromov, F.Hasanova) and chemical control measures (B.Aleev, M.Lozovatskaya, I .Lieberstein, A. Jarasov, J. Jarosov, N. Khalilov, T. Khodjakulov, A. Sagdullaev, M. Shodmanov, B. Nasirov, U. Charshanbiyev, N. Turdieva, A. Yuldashev, S. Sullieva) development conducted a number of studies in the world-famous research centers.

It is important to study the damage caused by weeds and flower parasites in vegetable fields, the germination of seeds of weeds and flower parasites and the factors affecting this process, and the development of the type and application standards of herbicides.

Results

At the experimental station of the Tashkent State Agrarian University, in a small-scale experiment, Pivot, 10% s.e.c herbicide at 0.5 L/ha, 1 L/ha and 1.5 L/ha and the recommended solutions of Treflan, 24% s.e.c. at 4 l/ha were tested against the carrot dodder were tested. In this experiment, 25 m^2 experimental plots were selected for each variant in 4 replications. Carrot and dodder seeds were sown together on soil. After sowing, the seeds were spread evenly on the surface of the soil, and 300 l/ha Pivot, 10% s.e.c. sprinkled depending on options. The remaining agrotechnical activities were

carried out based on the accepted rules. All variants of Pivot, 10% s.e.c., used in carrot fields against the dodder gave good results and reduced dodder seed germination by 100% (see Table 4.3.1). After the 45th day after the herbicide was applied, the spread of dodder was 0.2% in the variant where only 0.5 l/ha was used. In other variants, there was no sporulation in the carrot. In control, its prevalence reached 22.6% during this period. During the period of obtaining the next account of the spread of dodder, i.e. Pivot, after 60 days of application of 10% s.e.c., 1 L/ha and 1.5 L/ha had 0.4 and 0.1 % of dodder spread. In the case of the used version of 0.5 l/ha, this indicator reached 9.7%. When Treflan, 24% k.e was used, at the first count, the spread of dodder was 0.5%, 12.9% after 45 days, and 19.7% after 60 days. Before harvesting the carrot crop, the spread of dodder in the experimental options is 21.7; 6.3 and 6.2%, 30.0% in the standard and 59.6% in the control.

Pivot, 10% s.e.c., used against carrot borer, also affected its yield. Carrot yield was 208 s/ha, 226 s/ha and 226.4 s/ha in experimental variants, 192 s/ha in standard and 183 s/ha in control. Experience has shown that all tested parameters of Pivot, 10% s.e.c. gave good results.

Pivot, 10% s.e.c. which performed well in the small-scale experiment, solutions of 0.5, 1.0 and 1.5 l/ha were also tested under production conditions. The recommended rate of Treflan, 24% k.e. was relatively less effective and caused a decrease in yield.

Production experiments to test the effect of Pivot, 10% s.e.c. herbicide against carrot dodder were conducted at the “Guljafon Tabarruk” farm in the Tashkent district of the Tashkent region (1.2 ha). Both 1 and 1.5 l/ha of Pivot applied in production conditions gave good results and no dodder spread was noted in carrots in these fields (table 4.3.2). In carrots, 6.7% spread of dodder was observed in the area where 0.5 l/ha of Pivot was used. In the area where the herbicide was not used, the spread of dodder reached 44.3%. Pivot, 10% s.e.c applied plots (0.5, 1 and 1.5 l/ha) showed that carrot yield was 197, 210 and 211 s/ha, while in the control this indicator was 153 s/ha.

Conclusion

Pivot, 10% s.e.c. performed well against carrot odder, as 1 and 1.5 l/ha rates of 10% s.e.c. showed almost the same performance. Considering the cost of Pivot 10% s.e.c., and its application rate against carrot dodder, it is recommended to use a standard solution of 1 l/ha of the pivot.

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