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PARSHA DISEASE OCCURRING IN THE FRUIT ORCHARDS OF SURXONDARYO REGION AND CONTROL MEASURES AGAINST IT

Khalmuminova Gulchehra Kulmuminovna
Dotsent of the Department of Plant Protection, Agrochemistry and Agrosoil Science,
PhD Termez State University of Engineering and Agrotechnology
e-mail: g.xalmuminova82@mail.ru

Sadullayev Sulaymon Ravshon ugli
Master‘s Degree in Plant Protection, Agrochemistry and Agrosoil Science
Termez State University of Engineering and Agrotechnology
e-mail: s.sadullayev@mail.ru

Abstract
The article provides information on the scientific research work on the disease Parsha, which causes serious damage to trees in the orchards of Surkhandarya region, and measures to combat it. This disease is a fungal disease, and as a result of this very common disease, the quality of the fruit is impaired and the exportability property is impaired.

Keywords: Apple, pear, parsha-acting substance,causative agent, fungicide, pesticides.

Introduction

Horticulture is considered one of the most profitable sectors of agriculture in Uzbekistan. According to the Resolution of the President of the Republic of Uzbekistan dated March 20, 2019 (PQ–4246) “On measures to develop horticulture and greenhouse farming in the Republic of Uzbekistan,” the document is aimed at expanding the production of competitive, export-oriented products based on resource-saving technologies.

Parsha disease, which occurs in fruit orchards of Surxondaryo, is one of the main fungal diseases of fruit trees. Due to the relatively mild winter conditions of Surxondaryo region, the pathogen of this disease survives the winter without significant losses.

Research Methods:

Scientific research work was conducted using generally accepted phytopathological and mycological methods by A.Y. Semenov, L.P. Abramova, M.K. Khokhryakov (1980), fungicide testing methods by G.Sh. Kotikova, S.P. Alekseyeva (1985), A.E. Chumakov (1974), and methodological guidelines of the State Chemical Commission of Uzbekistan (2013, 2018).

Research Results:

As a result of our scientific studies, the occurrence of Parsha, also known as scab disease, its damage, and control measures in fruit orchards located in Surxondaryo region were investigated.

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According to information provided by A. Sheraliyev, apple scab (Venturia inaequalis Wint.) and pear scab (V. pirina Aderh.) cause primary infection on the leaves and shoots of infected plants through ascospores, while secondary infection occurs through conidia formed on these tissues. The manifestation of secondary infection can be compared to that of rust fungi. Primary infection is caused by basidiospores developed from teliospores, while secondary infection occurs from spores formed on hawthorn plants. The source of infection plays a critical role in plant disease development. Soil, plant debris, infected seeds, and seedlings serve as major reservoirs of infection.

Identification method: Parsha disease was identified in laboratory conditions by placing infected fruit pieces in a moist chamber. The pathogen was then isolated on agar media to obtain pure culture. Preparations were made from the obtained pure culture and examined under a microscope.

Control measures: In fruit orchards of Surxondaryo region, three types of fungicides with different active ingredients were used against scab disease. These included: Fundazol 50% WP, with active ingredient a-benomyl (benomyl) Star Top 32.5% SC, with active ingredients azoxystrobin + difenoconazole Aramis 380 g/kg WG, with active ingredients boscalid + pyraclostrobin According to research results, Fundazol 50% WP applied at 1–2 kg/ha showed 89.2% effectiveness on the 3rd day, 95.9% on the 7th day, and 97.1% on the 14th day. Aramis 380 g/kg WG applied at 0.8 kg/ha demonstrated 89.1% effectiveness on the 3rd day, 92.3% on the 7th day, and 94.5% on the 14th day. Star Top 32.5% SC applied at 0.5 L/ha showed 87.3% effectiveness on the 3rd day, 92.5% on the 7th day, and 94.6% on the 14th day.

CONCLUSION:

In conclusion, Parsha (scab) disease is one of the most widespread diseases observed in fruit orchards under the conditions of Surxondaryo region. It causes significant yield losses and reduces the export quality of fruits; therefore, studying this disease holds particular importance. Based on the results of our scientific research, we recommend the use of Fundazol 50% WP (active ingredient: a-benomyl/benomyl) at 1–2 kg/ha for effective control of this disease.

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