



MONILIOUS DISEASE OF PEAR AND CONTROL MEASURES

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Abstract this article provides information on the damage of pear moniliosis disease and the biological effectiveness of fungicides in its fight.

Key words: pear, disease, fungus, pathogen, fungicide, damage, disease development, biological efficiency.

Introduction

The growth, development and productivity of fruit plants largely depend on various factors of the external environment. In particular, climate, soil and living organisms have a great influence on the growth and development of fruit crops. These effects are different at different stages of plant age (seedling, yielding, senescence), growth and dormancy phases, and throughout the year (spring, summer, winter, autumn). Timely feeding, care, prevention of unfavorable conditions and protection from harmful organisms, favorable conditions for their growth and development of fruit plants are considered [6].

Today, fruit crops are affected by many diseases. In a single pear plant, calmarase and moniliosis are considered to be the main pathogens due to the importance of spreading and causing damage. In the conditions of the Central Asian and European regions, as well as in the southern, wetter regions of the North Caucasus, these diseases are increasing significantly. Diseases can lead to the deterioration of the quality of the pear tree and its complete death under favorable conditions of development. Under the influence of diseases, plant leaves and generative buds can be damaged, the plant becomes weak and winter resistance decreases. Also, due to the damage of these diseases, the yield and quality of fruits decrease, the growth of stems and buds in pear trees, and the reduction of tolerance to various steriss factors [2, 3].

Apple and pear trees are especially affected by moniliosis (*Monilia cinerea Bonard.f. mali* (Wormaild.) Harrison) and fruit rot (*Monilia fructigena Pers*) in our republic. 25-30% yield is lost every year under the influence of these diseases. In the research conducted by our scientists, it was found out that 90-95% humidity and 15 °C air temperature are needed for the development of pathogenic conidia of these diseases in laboratory conditions. After the 4th treatment of pears against these diseases (1 time with 4% Bordeaux mixture + 3 times with 0.25% Ridomil gold fungicide) or 1 time with 4% Bordeaux mixture, 3 times chemical control at the rate of 0.02% of Ridomil gold fungicide The prevalence of the disease was 3.8-6.8% and the development was 1.2-2.3% when the measures were taken, it was reflected in the studies [1].

Research methods. Studies on the study of fungal diseases of pear orchards were carried out on the basis of generally accepted methods in mycology and agricultural phytopathology. Species composition, bioecology of disease-causing fungi N.M. Pidoplichko, M.K. Khokhryakov; infection



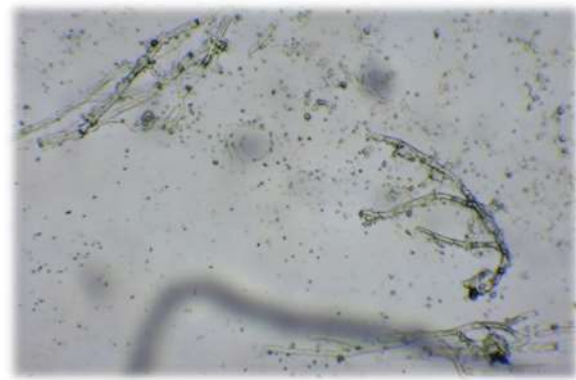
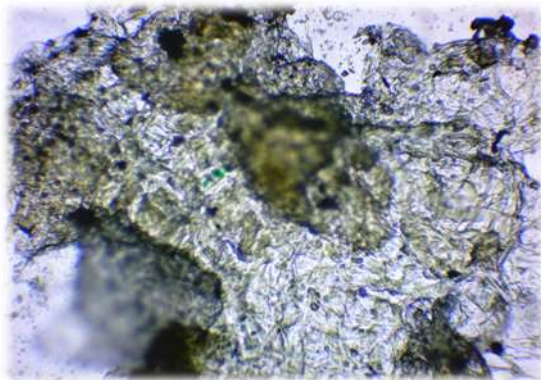
with diseases and disease development K.M. Stepanov, A.E. Chumakov, I.I. Minkevich (1974.); application of fungicides against diseases, biological and economic effectiveness was determined using Sh.T. Khojaev (2004.) methodical manuals and disease distribution area using GNSS Viewer version program [4, 5].

Research results. Our research was carried out at the scientific-research institute of horticulture, viticulture and winemaking named after Academician M.Mirzaev. In our research, we used chemical control methods against fungal diseases of pears.

In 2021, Ifododin 50% s.c. fungicide was tested at a consumption rate of 0.8 l/ha. As a template Sillit 40% s.c. fungicide was selected (table). During our observations, pear moniliosis disease and pear leaf, stem and fruit pests were detected in larger quantities. In the control variant, which was not treated with fungicides, damage (leaf, stem and fruits) was 21.0%, while disease development was 9.9% (picture).

According to the results of the experiment, Ifododin 50% s.c. was used against moniliosis disease of pear at a consumption rate of 0.8 l/ha. fungicide showed high efficiency. Disease damage (leaf, fruit, branch) was 8.0%, disease development was observed in 2.7%. Biological efficiency was 88.5%.

Sillit 40% s.c as a template option. (1.0 l/ha) fungicide damage (leaf, fruit, stem) was 6.3% and disease development was 2.5%, biological efficiency was 89.3%.



Picture. Damage caused by moniliosis fungus in pear fruits (*Monilia fructicola*).

**Table.**

It has been used against moniliosis of pear Ifododine 50% s.c. biological efficiency of fungicide

Field test-experience, Tashkent region, scientific-research institute of horticulture, viticulture and winemaking named after Academician M.Mirzaev, 2021.

№	Options	Application rate, l/ha	Leaf, stem, fruit		
			damage, %	disease progression, %	biological efficiency, %
1.	Control (unprocessed)	-	21,0	9,9	-
2.	Sillite 40% s.c. (template)	1,0	6,3	2,5	89,3
3.	Ifododine 50% s.c.	0,8	8,0	2,7	88,5

Conclusion. In conclusion, failure to take timely chemical control measures against moniliosis disease in pear orchards can lead to a decrease in plant growth, development and productivity. In the course of our research, Ifododin 50% s.c. was used against moniliosis in pear orchards. fungicide was found to be highly effective. 8.0% of moniliosis infection and 2.7% disease development compared to the control variant, biological efficiency was found to be 88.5%.

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