



TOMATO'S ROOT ROT IN TASHKENT REGION CONDITIONS

Saydinabi Xasanov

Doctor of Agricultural Sciences, Tashkent State Agrarian University, Uzbekistan

ABSTRACT

This article provides an analysis of the most common root rot disease in tomato plants grown in greenhouses in the Tashkent region of the Republic of Uzbekistan and measures to combat it.

KEYWORDS: *tomato, fungal diseases, root rot, plant susceptibility, disease development.*

INTRODUCTION

It is well known that without the protection of agricultural crops from the insects and diseases present in them, the development of the agricultural sector of any country is absolutely impossible. Therefore, information about the diseases of crops has been of interest to everyone since ancient times. Because even in those times, various diseases appeared in the plants growing under natural conditions and in the cultivated agricultural crops. They did a lot of damage. But the measures to combat their loss are absolutely undeveloped [1].

The occurrence of pathogenic fungal species in cucumbers has not always been the same. For example, pitiosis was more common in 1998, rhizoctoniosis in 2006-2008, and fusarium and bacteriosis in 1999.

No significant changes were observed in tomato pathogens. They have mainly white rot, rhizoctoniosis, fusarium wilt. Fusarium warts had

more *F.oxysporum*, less *F.moniliforme*, much less *F.nivale* and *F.solani*.

This means that a rich and high-quality harvest of tomatoes and cucumbers grown in greenhouses means a thorough study of their diseases and the development of measures to combat them.

Tomato root rot occurs in all greenhouses. This disease is very dangerous and affects the seedlings and seedlings of the plant.

Decay is observed mainly at the base of the stem and on the lateral branches of the root, in which dark brown spots appear. Roots of seedlings rot the root collar and seed leaves.

The growth of diseased seedlings slows down, the seed leaves turn yellow and dry out. Later infected plants are completely destroyed.

The main pathogens are *F. oxysporum*, *Pyt. de baryanum*, *Rhizoctonia solani*.

The prevalence of the disease was 11.5% and the yield loss was 17.5%.

Table 1

Identified fungal species in cucumber plants grown in greenhouses

Types and categories of fungi	Diseased organs of the plant
In seedlings	
<i>Fusarium oxysporum f.niveum</i>	Root, stem, leaf
<i>Pythium de baryanum</i>	Root, stem, leaf
<i>Rhizoctonia solani</i>	Root, stem, leaf
During growth	
<i>Ascochyta cucumis</i>	stem, leaf
<i>Cladosporium cucumerinum</i>	stem, leaf
<i>Colletotrichum lagenrarium</i>	stem, leaf
<i>Peronoplasmora cubensis</i>	leaf
<i>Fusarium oxysporum f.niveum</i>	stem, leaf
<i>Sclerotinia sclerotiorum</i>	Root, stem, leaf



As can be seen from Table 1, we isolated and identified 7 species of 3form fungi from cucumber plants. Of these, 2 species and 1 form infected seedlings, 5 species and 2 forms infected plants during growth. It should also be noted that if the roots, stems, leaves of seedlings are diseased, the fungi that cause the disease during the growing season have the ability to infect various organs of plants. Depending on the pathogenesis, they can be grouped into 5 groups. The first group — plants that infect only the stem - *Aschy cucumis*, the second group — which infects only the leaf.

Spaerothesa fuligenea f *cucmides*; to the third group - *Cl.cucumerinum*, which infects the stem and leaf; to the fourth group - *Col.*, which infects the stem, leaf, fruit. *Lagenrarium*, *Sc. Sclerotiorum*; the fifth group - *F. oxysporum* *F.nivea* fungus, which infects the root, stem and leaf.

When analyzing the types of the disease, it was also found that *E.cichoracearum* DC f., Which is common in greenhouses of foreign countries. *cucurbitacearum* *Phyt ophthorain festans* diseases did not occur in our conditions. The pseudotectic cycle of ascochitosis also does not occur in us; we found that the conidia and fruit bodies of the pathogenic fungal species were slightly smaller. Based on our scientific results, it became clear that the disease-causing fungal species are common in cucumber plants growing in greenhouses, which leads to the loss of a certain part of the cucumber crop.

REFERENCES

- 1 *Avazov S.E. The main plant diseases // Plant protection and quarantine. -2019. -P.19-22.*
- 2 *Handbook of vegetable growing, melon growing and tomato growing -Toshkent: Mekhnat, 1986.-200 p.*
- 3 *Xolmuradov E.A. Plant pathology. // Navruz. -2014. -P. 128-130.*
- 4 *Khasanov B.A., Ochilov R.O., Gulmurodov R.A. Сабзавот, картошка ҳамда поллиз экинларининг касалликлари ва уларга қарши кураш. -Tashkent: VORIS-NASHRIYOT, 2009. -214 p.*