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LITERATURE ANALYSIS OF ROOT ROT AND GRAY ROT DISEASE OF TOMATO PLANTS IN FERGANA CONDITIONS

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ABSTRACT

*This article analyzes the literature on the main fungal diseases of tomato plants grown in Fergana region, their causes and effective control measures. In this article, it is noted that the experiments carried out within 20 days of our research results showed that death was recorded only in *Aspergillus fumigatus* (4%), *Aspergillus flavus*, *Trichotecium roseum* and *Fusarium lateritium* 2%.*

KEY WORDS: *gray rot , micromycetes , disease of tomato , fungi, pathogenicity, root rot , damage*

INTRODUCTION

Tomato of the plant ash color decay disease Next in years in greenhouses the most among tomato crops spread out from diseases one ash color rot and root decay is considered sick of the world developed countries phytopathologist scientists , mycologists, agrobiotechnologists say tomato the fruit 10% to 30% in greenhouses up to gets sick

Illness causative agent – *Botrytis cinereae Pers* . The disease is above ground of the tomato plant part ie leaf , leaf bundle , stem , flower buds , flowers and the fruit makes you sick. Usually it is damaged from the flower to the leaf passes . Especially of the plant stem damage is dangerous because it is a plant conductor tissues dead.

Sick of the plant on the stems small brown colorful spots harvest being they are stem each bilaterally wrapping takes stain on the surface dusty conidia bands and conidia harvest will be of fruits illness basis from the part begins. First fruit on top small gray spots harvest will be later they are everyone the fruit take over takes.

Fruits slimy substance with to get wet like remains and his on top ash color will be mold harvest. This mold-mycelium , conidial band and from conidia consists of of the fungus mycelium colorless or hungry ash color brown colored, 3-7 μm wide conidial bands to the tree similar branched , multicellular , bark thick will be Bottom part a little brown , top part while colorless , 35-146x5-9 μm branches on top very dense will be located conidia harvest. They are together to the head like round form harvest.

Conidia one cellular , round-elliptic or ovoid 9-12,0 x 5,0 - 13,0 μm , colorless Most of them together ash color enters.

Illness vegetation during conidia through spread and new healthy plants makes you sick. Getting sick very fast and strong develops. A lot time without passing of the plant leaf, stem , leaf bands and fruits gets sick

Sick plant tissues on harvest has been mycelium between of the fungus sclerotia harvest will be They are dark , brown , round each different in shape , 2-4 μm in diameter .

Tomato plants in greenhouses the disease Fruits spread 21.5% yield up to 30.0 % loses.

Tomato root decay sick everyone in greenhouses occurs. This disease very have of the plant sprout and seedlings makes you sick.

Decay basically of the stem based on and of the root side in the branches observed in it full brown spots harvest does _ Seedlings root , root throat and seed the leaves it rots .

Sick of seedlings growth fade, seed leaves turning yellow dry remains. Broadness sick plants in general dead being remains.

Main diseases instigator to species *F. oxysporum* , *Pyt . say barianum* and *Rhz. solan* enters

This three fungus types of plants root decay the disease together that they rotted because of illness level and the harvest to be lost summarizing we gave below this of species morphological features stopping let's go

Fusarium oxysporum type ill of the plant root in the throat pink - reddish colorful soft mycelium harvest does _ In mycelium micro and macro conidia , chlamydo spores appear will be Conidial bands simple or branched . Macro conidia sickle -shaped , 4-5 cells 29.0 – 52.0 x 3.5 – 5.0 µm . Microconidia sometimes two cellular too to be can be oval , in the form of ovoid.

Pythium say barianum type a lot branched , thin spider thread shaped from the mycelium organize found dust harvest does _ Zoospores round , 13-24 µm diam . Oospores round 9 -15 µm diameter , yellow - liver colored , skin thick.

Rhizoctonia solan type with sick of the plant root in the throat green-brown , later liver colorful spots appear will be Leaves the color without changing fade away dry remains . Sick plant from the ground easy pull out is taken and stem fast broken goes. Of the fungus young mycelium colorless is old _ towards liver to color becomes. Time pass does with mycelium on top pseudosclerotia harvest. They are liver color is all sick members covered takes.

RESULTS OF THE STUDY

The pathogenicity level of the identified micromycetes was isolated to determine the diseases occurring in tomatoes. They were kept for 20 days to determine the possibility of damage. The experiment was conducted on 50 tracks. The average percentage of damage was calculated. The results of the experiment are presented in Table 2.

Table 1.
Disease strains and infection identified from tomato crops .

Type of micromycetes	Number of identified strains	Number of larvae	Caterpillar damage, %	
			Defeat	Doom
<i>Aspergillus flavus</i>	1	50	21	2
<i>Aspergillus niger</i>	1	50	18	-
<i>Aspergillus terreus</i>	1	50	-	-
<i>Aspergillus ochraceus</i>	1	50	3	-
<i>Aspergillus fumigatus</i>	1	50	25	4
<i>Cephalosporium acremonium</i>	1	50	16	-
<i>Geotrichum candidum</i>	1	50	-	-
<i>Penicillium chrysogenum</i>	1	50	6	-
<i>Penicillium attendance</i>	1	50	4	-
<i>Penicillium spinulosum</i>	1	50	1	-
<i>Scopulariopsis brevicaulis</i>	1	50	16	-
<i>Trichothecium roseum</i>	1	50	18	2
<i>Alternaria alternata</i>	1	50	5	-
<i>Alternaria tenuissima</i>	1	50	3	-
<i>Cladosporium herbarium</i>	1	50	5	-
<i>Stachybotrys lobulate</i>	1	50	-	-

It should be noted that mortality within 20 days was recorded only when *Aspergillus fumigatus* (4%), *Aspergillus flavus*, *Trichothecium roseum* and *Fusarium lateritium* caused 2% mortality.

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