



COMPOSITION OF AGENTS OF FUNGAL DISEASES OF CUCUMBER SEEDLING UNDER THE CONDITIONS OF CLOSED GROUND IN THE TASHKENT REGION OF UZBEKISTAN

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ANNOTATION

The article provides a result of the research which carried out from the soils of greenhouses under tomatoes and cucumbers, a total of 52 species from 21 genera, 6 families, 4 orders from 3 classes of the fungi were identified. The largest number of identified soil species belongs to the class of Imperfect fungi - 45 species, to the class of Zygomycetes - 6 species and Marsupial fungi - 1 species. The genera Aspergillus - 8 species, Penicillium - 7 and Fusarium - 6 species are richly represented. 3-4 species were recorded in the genera Mucor, Cephalosporium, Gliocladium, Trichoderma and Cladosporium. The rest of the genera are represented by 1-2 species.

KEYWORDS: *Cucumber diseases, phytopathogenic fungi, species, developmental intensity, Aspergillus, fusarium wilting, root rot*

INTRODUCTION

Agriculture produces basic food products as well as raw materials for food and other industries. The main task of the agro-industrial complex is to improve the quality of products, eliminate its losses at all stages of production, transportation and storage. The challenge for agriculture is not only to create crops, but also to protect plants from pathogens and pests [1].

Due to the nutritional value, the value of greenhouse cucumber crops is beyond doubt. The study of plant diseases, the composition of pathogens and their biology is the first step towards further study of the ecological patterns of the formation of mycobiota, and also forms the basis for the development and optimization of a system of measures to protect crops from harmful organisms. It is known that fungi are a constant component of any biogeocenoses, which also includes soil. [3].

According to A.A. Yachevsky, the study of plant diseases, the composition of pathogens and their biology is the first step towards further study of the ecological patterns of the formation of mycobiota, and also forms the basis for the development and optimization of a system of measures to protect crops from harmful organisms. [4].

As a result of the research carried out from the soils of greenhouses under tomatoes and cucumbers, a total of 52 species from 21 genera, 6 families, 4 orders from 3 classes of the Kingdom of Fungi were identified.

The largest number of identified soil species belongs to the class of Imperfect fungi - 45 species, to the class of Zygomycetes - 6 species and Marsupial fungi - 1 species. The genera Aspergillus - 8 species, Penicillium - 7 and Fusarium - 6 species are richly represented. 3-4 species were recorded in the genera Mucor, Cephalosporium, Gliocladium, Trichoderma and Cladosporium. The rest of the genera are represented by 1-2 species. Of the total number of species (52 species), the bulk is the group of saprotrophic species - 68%, 17 species in favorable conditions can cause plant diseases.

In addition to soil fungi, special attention was paid to the composition of phytopathogenic fungi of seedlings and adult cucumber plants that cause various diseases.

From the data obtained, it can be seen that diseases of greenhouse cucumbers are caused by 28 species from 17 genera, 7 families, 5 orders, 4 classes of the Fungi kingdom.

The main diseases of seedlings are: root rot, lodging of seedlings, on adult plants plants are



noted: downy mildew, powdery mildew, wilting and various spotting, seed infections were also noted.

In addition to revealing the composition of phytopathogenic micromycetes, one of the tasks was to identify the main, most harmful diseases of tomatoes in greenhouses, for which the distribution in the greenhouses of the Tashkent region and yield losses during the development of diseases were calculated (Table 1).

From the data in the table it can be seen that the highest intensity of development of diseases according to average data (1998-2018) is from the development of powdery mildew - 30.5%, then comes brown spot - 27.0%, downy powdery mildew - 25.5%, fusarium wilting and lodging of seedlings - 18.5% and root rot -13.5% ..

Table 1
Prevalence and loss of yield from the development of major diseases

Types of pathogens	Name of the disease	Disease prevalence %	The intensity of the disease %
<i>Erysiphe cichoracearum</i> f. <i>cucurbitacearum</i>	Powdery mildew	37,5	30,5
<i>Peronosplasmopara cubensis</i>	Downy mildew	22,5	25,5
<i>Cladosporium cucumerinum</i>	Brown spot	24,5	27,0
<i>Fusarium oxysporum</i> f. <i>cucumerinum</i>	Withering and lodging of seedlings	23,5	18,5
<i>Fusarium, Rhizoctonia, Pythium</i> и др.	Root rot	19,0	13,5

Prevalence data are arranged differently. So, the most common is powdery mildew - 37.5%, followed by brown spotting - 24.5%, followed by lodging of seedlings - 23.5%, downy mildew - 22.5% and root rot - 19.0%.

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