



FUSARIOUS WILTING OF CUCUMBERS IN GREEN HOUSES

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ANNOTATION

The article provides data on the occurrence of Fusarium wilt of cucumbers of closed ground in the conditions of the Tashkent region. In total, 26 phytopathogenic species of fungi were identified on cucumbers of closed ground, of which Fusarium is the leader in the degree of harmfulness.

*When examining crops, Fusarium pathogens were discovered - *F. aurentiacum* Sacc., *F. javanicum* Koord., *F. monilioforme* Schlecht., Which caused plant damage, manifested in the form of chlorine-yellow spots. However, the form of lightning-fast wilting of adult plants, without loss of green color and preservation of foliage on cucumbers, was identified by us as *Fusarium oxysporum* Shlecht. f. sp. *cucumerinum* Owen.*

Fusarium wilt refers to the most common diseases of gourds. So, in the case of a defeat of cucumbers, fusariosis was noted in 16.0% of the total.

KEY WORDS: *cucumber, fungi, pathogen, disease, fusarium, wilting, spread, harmfulness.*

INTRODUCTION

Fusarium wilt (Fusarium wilt) is currently one of the most dangerous diseases of vegetable crops, including cucumber in Uzbekistan [6, 7, 8].

Cucumber (*Cucumis sativus* L.) is an annual herbaceous plant whose cultivation is widespread under open and greenhouse conditions in Uzbekistan, in particular, the Tashkent region.

The disease manifests itself in various phases of plant development. In the seedling phase, rapid withering occurs, the seedlings turn yellow and dry. There is a strong attack of seedlings. Young plants wither very quickly, within a few days. Leaves lose turgor and dry without losing leaves. In case of damage to adult plants in the fruiting phase, individual lashes wilt first, in the case of a strong development of the disease, the entire plant may die [5, 8, 9].

According to T.L.Dobrozrakova et al. in the seedling phase, root decay is observed [4]. We did not

observe root decay on adult plants, except for cucumber seedlings.

The causative agents of Fusarium wilt - mushrooms p. *Fusarium*, are ubiquitous, are widespread in Uzbekistan, affect a wide range of nourishing plants [1, 2].

In addition to the composition of micromycetes, the objectives of the study included determining the frequency of occurrence or prevalence of diseases.

RESEARCH METHODS

The object of our research conducted at the Department of Plant Protection of Tashkent State Agrarian University, were diseases of vegetable crops in closed ground. In total, 26 phytopathogenic species of fungi were identified on cucumbers of closed ground, of which *Fusarium* is the leader in the degree of harmfulness. *Fusarium* cucumber was observed everywhere in the Tashkent region.

In addition to the composition of micromycetes, the objectives of the study included determining the frequency of occurrence or prevalence of diseases.

The prevalence of the disease was calculated by the following formula [7]

$$R = P * 100 / N,$$

where, R - the prevalence of the disease,%;

N is the total number of plants in the samples, pcs;

P - the number of diseased plants in the samples, pcs.

RESEARCH RESULTS

In our own examinations of crops, we found causative agents of Fusarium - *F. aurentiacum* Sacc., *F. javanicum* Koord., *F. monilioforme* Schlecht., Which caused plant damage, manifested in the form of chlorine-yellow spots. However, the form of lightning-fast wilting of adult plants, without loss of green color and preservation of foliage on cucumbers, was identified by us as *Fusarium oxysporum* Shlecht. f. sp. *cucumerinum* Owen [1, 8, 9].

When studying the composition of phytopathogenic micromycetes of greenhouses cucumbers in the Tashkent region, fusarium wilt manifested itself everywhere. B.O. Khasanov et al. (2009) cites *Fusarium oxysporum* Shlecht on cucumbers. f. sp. *cucumerinum* Owen., M.M. Ganiev and V.D. Nedorezkov (2005) indicate the development of *Fusarium oxysporum* Shlecht. f. sp. *niveum* (E.F.Smith) Sn. et Hans., to which B.O. Khasanov (2009), according to MacNab et al., (1983) and Bernhard et al., (1988) believes that this pathogen occurs in watermelons without affecting cucumbers. [8]. Data on the frequency of occurrence and development of the disease of various types of diseases are given in Table 1.

From the presented table it can be seen that the most common diseases on melons and gourds in the Tashkent region are Fusarium wilt and powdery mildew. So, on cucumbers, powdery mildew was more common in comparison with fusarium (18 and 16%, respectively).

CONCLUSION

Based on the foregoing, one can agree with the opinion of V.I. Bilay (1977), G.N.Agrios (2008) that fusarium wilt is one of the main harmful diseases of crops, and in the central and northern zones of Uzbekistan, 4 species are noted on melons and 5 forms of causative agents of fusarium [1. 10].

Fusarium wilt refers to the most common diseases of gourds. So, in the case of a defeat of cucumbers, fusariosis was noted in 16.0% of the total.

Table 1
Accounting damage caused by pathogens of various types of diseases on a cucumber of greenhouses conditions of the Tashkent region, (%)

Crop		Pithiosis	Fusarium	Thielaviopsis	Rhizoctonia	Total-Rot	Fusarium	verticillium	Total-wilting	Downy mildew	Powdery mildew	Alternariosis	Cladosporiosis	Total-spotting	TOTAL CROP
Cucumber	%	1,6	2,0	1,4	0,6	7,0	16,0	5,2	21,2	4,4	18,0	10,0	9,0	41,4	24,9
	number of isolates	2	3	2	1	10	23	7	30	6	26	14	13	59	198

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