



UDC 632.8

## THE SCIENTIFIC SIGNIFICANCE OF THE RESULTS OF THE STUDY OF TOMATO AND CUCUMBER DISEASES IN THE GREENHOUSES

**Saydinabi Xasanov**

*Doctor of Agricultural Sciences, Tashkent State Agrarian University, Uzbekistan*

### ABSTRACT

*The publication discusses the scientific significance of the results of the study of tomato and cucumber diseases in the greenhouses in Uzbekistan.*

**KEYWORDS:** *tomato and cucumber diseases, fungal diseases, alternaria, fungicide, consumption rate, plant susceptibility, disease development scientific significance.*

As a result of the development of science in all countries of the continent, phytopathologists first study the causes of plant diseases, their development, their diagnosis, the impact of the external environment on the disease, its pathogenesis, their interactions and, finally, their bioecological characteristics. began to happen. Such data are naturally observed mainly in the United States, Germany, the Netherlands, France, Turkey, Israel and other countries where agriculture is well developed, as they pay special attention to the cultivation of agricultural crops, increasing their yields.

As a result of our analysis of published literary sources, it became clear that tomato and cucumber crops have been grown in continental countries of Europe, Asia, America, Australia. Wordless is still cultivated today (Neengard, 1945; Walker, 1952; Gragan, Kimble, Misaghi 1975; Shert, Macnab, 1986; Bussey, Stevenson, 1996; Rotem, 1994; Martinez, 2004; Chaeran, Voorrips 2006; Kumar, Haldor, Pandey, Singu, 2007) et al.

In order to combat all crop diseases, it is first necessary to correctly determine the diagnosis of a particular disease, because each disease has its own unique appearance. Including stains, dust, withering, rot, etc., their formation depends only on the type of pathogen. Therefore, plant protection specialists, scientists have taken a special approach to solving this problem. (Walker, 1952; Ellis, Gibson, 1975; Chaerans, Voorrips, 2006, et al.). He then identified the patterns of disease spread and the damage they caused (Shert, Macnab, 1986; Rotem, 1994; Kumar et al. 2007).

To study the prevalence of facultative parasitic fungal species that cause disease in the greenhouse, we used petri dishes on petri dishes - agar, Chapeka, potato agar, Bilay nutrient media. We placed them on top of the plates near the tomato and cucumber plants, placing the first plate on the ground and the rest every 0.5 m upwards. After 5-10 min, we covered the plates and allowed them to grow in the laboratory at a temperature of 23-250C. We conducted follow-up every day for 3-4 days. In doing so, we looked at the microscope with a small object from the back without opening the plates. Once the colonies had grown well, we transferred them to nutrient medium solutions in front of the flame with a sterilized microbiological loop and identified fungal species.

An analysis of published literary sources revealed that the tomato and cucumber plant has been grown in almost all countries since ancient times and was loved and consumed by the population. First of all, as the demand for tomato and cucumber products has been growing from year to year, time itself has clearly shown the need to develop a scientific basis for the development of vegetable growing.

As a result of scientific research conducted by many scientists, new results of scientific and practical significance have been achieved in the biological properties of tomato and cucumber plants, their cultivation technologies, methods of prolonging the winter storage period, selection and seed work. It was also found that the most important factor preventing the abundant and efficient harvest of tomatoes and cucumbers has been proven to be diseases of species belonging to different groups of



microorganisms. Common and extremely dangerous fungal diseases in all countries where tomatoes and cucumbers are grown include phytophthora, fake flour-dew, flour-dew, white rot, black mold and other diseases (Kazakova A.A., Peresyppkin V.S., Pidoplichko N. M., Ulyanishchev V.I., Black L., Conn K., Gabor B. et al.).

In addition, genetic breeders have discovered new varieties that are resistant to pests and diseases, adapted to the growing environment, agronomists have introduced new technological methods for the cultivation and development of tomato and cucumber plants. Phytopathologists, on the other hand, have developed coordinated control measures against disease-causing microorganisms. As a result, the yield of tomatoes and cucumbers has increased from year to year.

Of these, 15 species were recorded in tomatoes, 16 species in cucumbers, and 5 species of fungi in both species of plants;

In terms of species, the most numerous species were classified from the class Deuteromycetes 15, 2 forms, Zygomycetes 4, Ascomycetes 3 species, 1 form and Oomycetes 3 species;

21 species of fungi and their laws of development and distribution were identified in the soil layers of the greenhouse and in the air.

The scientific significance of the research results is explained by the expansion of theoretical knowledge in the field of phytopathology, mycology, plant protection, as well as information on the biology and physiology of disease-causing microorganisms in tomatoes and cucumbers.

The practical significance of the research results is the development of effective control measures against pathogenic fungal species based on the detection, in-depth scientific and practical analysis and full description of their diagnosis of fungal diseases of tomato and cucumber plants during vegetation and storage processes.

## REFERENCES

- 1 Sanin S.S. *The main components of the system of plant protection against diseases // Plant protection and quarantine.* -2003. -№10. -S.16-21.
- 2 *Handbook of vegetable growing, melon growing and tomato growing -Toshkent: Mekhnat, 1986.-276 p.*
- 4 Tyuterev S.L., Tkachenko M.P. *Rational use of modern fungicides. // Plant protection and quarantine.* -2000. -No 9.-P. 28-30.
- 5 Khasanov B.A., Ochilov R.O., Gulmurodov R.A. *Сабзавот, картошка ҳамда полиз экинларининг касалликлари ва уларга қарши кураш. –Tashkent: VORIS-NASHRIYOT, 2009. -244 p.*
- 6 Зуев В.И., Мавлянова Р.Ф., Дусмуратова С.И., Буриев Х.Ч. *Овощи – это пища и лекарство. - Ташкент: 2016. - 215 с.*

7 Кудряшева А.А. *Микробиологические основы сохранения плодов и овощей; М., - Агропромиздат: 1986, - 190 с.*

8 Купревич В.Ф., Траниель В.Г. *Флора споровых растений СССР. Сем. мелапсоровые. - М. – Л.: АнСССР, 1957.- С. 17.*