SCREENING OF PHYTOPATHOGENIC BACTERIAL STRAINS CAUSING BACTERIAL DISEASES OF LENTIL IN UKRAINE

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Bacterial diseases of lentil have not been studied much in Ukraine. This plant is quite widespread and used in our country, but the study of the causative agents of bacterial diseases of this plant began relatively recently. Lentil is the most protein-rich crop among legumes. It is on the second place after peas and soybeans in terms of consumption volumes. Lentil is quite actively grown in Ukraine because of favorable climate and competitive advantage, but the number of lentil diseases caused by plant pathogenic bacteria is increasing. That can lead to serious losses of crop yield and financial loss.

The aim of the work was to isolate and identify phytopathogenic bacteria that cause lentil diseases among different varieties. In this work, the following subjects were used: seeds from three lentil varieties "Darinka", "Linza" and "Serpanok", pathogenic isolates from lentil seeds and reference strains of phytopathogenic bacteria for comparison *Pseudomonas syringae* pv. *syringae* УКМ В-1027т= IMB B-8511, *P. syringae* pv. *syringae* УКМ В-1027т = В-8414, *P. savastanoi* pv. *phaseolicola* IMB B-9066, *P. savastanoi* pv. *glycinea* IMB B-9190 and *Pectobacterium carotovorum* УКМВ-1075т =IMB-B-8982.

The biochemical and microbiological methods were used in this research. In the course of the experiment, we isolated five main isolates that had pathogenic properties which were tested by artificial infection under greenhouse conditions. Strains 1 and 9 were the most aggressive and caused similar symptoms which included chlorosis, yellow and brown splotches in injection marks and twisted leaf.

Strains 1 and 9 were isolated from the lentil cultivar "Linza". It should also be noted that the majority of pathogenic isolates which were morphologically similar to the studied strains were also isolated from this cultivar. It means that this cultivar has low resistance to bacteriological diseases.

Since one of the strains was similar to the genus *Pseudomonas* according to biochemical tests, additional serological tests were performed. As a result, it showed the greatest similarity with the reference strain *P. savastanoi* pv. *glycinea*.

Thus, according to the results of morpho- cultural, physiologo-biochemical and serological tests, two isolates were assigned to the genus *Pseudomonas sp*. (strain 9) and *Pectobacterium sp*. (strain 1).