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INFLUENCE OF VARIETY RESISTANCE ON INFECTION OF POTATOES BY LATE BLIGHT

Potato - one of the most productive cultures in modern agriculture. The basic factor of decline its productivity is influence of harmful organisms.

In the western region of Ukraine the most widespread and harmful illness of culture is late blight. The degree of harmfulness of late blight depends from of variety resistance and meteorological terms which cause or depress development and distribution of disease.

A breeding on resistance is the most effective mean of increase productivity of potato. Applying in industry of new generation of varieties with high adaptive ability connected with increased productivity, which must property to resist of stress influence of biotical and abiotical factors of external environment, is one of most important preconditions of growing of high and permanent harvests.

Lately a world breeding spares the large attention to creation of potato varieties with the high field resistance of above-ground part against of late blight. In breeding the selection of pair for crossing after ecologo-geographical principle is widely used. The various geographical forms of plants, which grow in different terms are adapted to them as certain ecological forms.

As a result of researches we discovered that on development of late blight in the conditions of Western Forest-Steppe of Ukraine the weather terms of year and set of varieties have a considerable influence. It should be noted that resistance of potato to late blight depended on the group of varieties ripeness.

In throughout the year of researches the most infected by illness were varieties of early-maturing group, and least infected – medium-late group. However, in each of groups of ripeness some varieties of potato were separated and in single years was marked relatively high resistance to disease.

In times of researches of the greatest development on the end of vegetation the late blight was attained in 2007 , and the least infection of potato by illness was marked in 2006.

The analysis of resistance of potato varieties against late blight are showed that the most part from the general amount of varieties almost in throughout the year of researches were occupied varieties with middle resistance (50,0–80,0 %), varieties with relatively high resistance – 9,4–16,7 %.

As a result of artificial infection of the separated leaves among the varieties of the Ukrainian breeding resistant against late blight varieties were: Volya (index of infection 13,3–18,3), Bylyna (13,7–17,8), Girs'ka (12,6–18,6), Shchedryk (14,7–20,0), Slov'yanka (13,7–17,8), Krasen (13,2–19,6 Ol'viya (12,7–15,9), Chervona ruta (11,7–16,3). Therefore these varieties can be used for subsequent plant-breeding process at creation of new late blight resistant varieties.