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SPREAD OF INVASIVE SPECIES AND CLIMATE CHANGE

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In the context of intensive economic development and the strengthening of international trade over the last decade, the number of invasive species that has spread far beyond their natural habitat is rapidly increasing. To reduce the flow of invasions is quite complicated due to the latent course of infectious processes, a slight awareness of the general public, which often leads to the unauthorized import of alien species. Fire blight originated in North America but it has spread in many parts of the world, including Europe. This disease has caused major economic losses in many countries, where commercial varieties of apple and pear are often susceptible to fire blight. For many years it was believed that fire blight does not exist in Ukraine. The disease was first identified in 1997 on pear in the Chernovtsy region. In subsequent years, the Quarantine Service of Ukraine registered the disease in Transcarpathian, Lvov, Vinnitsa and Ivano-Frankovsk regions. Since 1998 we have monitored of *Erwinia amylovora* in a set of orchards in some regions of Ukraine. The materials for our research were samples of apple and pear trees (leaves, parts of twigs and branches, bits of bark, blossoms) during the spring, summer and autumn surveys of the gardens. Unfortunately, reliable control methods have not been developed, and this disease responds poorly to the few available treatments. For these reasons, prevention through the use of resistant varieties is the best possible management practice. Therefore, we studied 20 varieties of pears and 15 varieties of apple for resistance to *E. amylovora*. Pears show less variation in resistance and are generally more susceptible than apples. Cultivars «Williams», «Bukovynka» and «Noyabrska» were included in the "Moderately resistant" group. Susceptible cultivars to fire blight were «Beurre Hardy», «Berre Bosk», «Triomphe de Vienne», «Victory», «Cure» evaluation scores ranged from 4 to 5. Very strong attack symptoms were observed at cultivars «Conference», «Jeanne d"Arc», «Kucheryanka», «Olivier de Serres» and «Starkrimson». The most sensitive apple varieties: «Golden Delicious», «Idared», «Jonathan», «Landsberger Renette», «Wagener». Cultivar «Spartan» was susceptible to *E. amylovora*. «Beauty of Boskoop», «Melba» and «Prima» cultivars showed a highly resistant to *E. amylovora*. The overall strategy in fire blight management is to keep the population of fire bight bacteria low. Only is to use an integrated program to reduce the chances that fire blight will become a serious problem in the pear and apple orchards.

Keywords*: fire blight, apple and pear trees, Erwinia amylovora, control*

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