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**BIO-ECOLOGICAL PECULIARITIES OF DEVELOPMENT OF AN APPLE FRUIT SAWFLY (*Hoplocampa testudinea* Klug.) OF THE RIGHT-BANK FOREST-STEPPE OF UKRAINE**

Insects cause significant yield losses of an apple tree that directly damage the fruit. One of the most harmful specialized phytophages of this crop in the temperate zone is an apple sawfly (*Hoplocampa testudinea* Klug.). In the absence of protective measures sometimes it kills 90% of the seed-bud. Today phytophagan is particularly widespread in the industrial apple agrocenoses of Polissia and Forest-Steppe of Ukraine, which inhabits 10-83% of trees with numbers 1-11, sometimes up to 23 copies/ der., as indicated by studies I.V. Shevchuk and V.P. Loshitskyi.

Studies were carried out in 2012–2013 under conditions of perennial plantings of an apple tree of Idared variety on rootstock MM-106 laid down in 1985 in educational, research and production department of Uman National University of Horticulture. The scheme of planting is 5x4m.

Research has shown that most (85.5%) cocoons of an apple fruit sawfly during winter are placed at a depth of 0–10 cm and a maximum depth of bedding sawfly cocoons is 20 cm. Also uneven placement of cocoons was marked in the projection of the crown. Population of an apple fruit sawfly during the research was viable and characterized by the following biometric indicators of cocoons in wintering sites: mass is 8.1 – 8.7 mg, length is 5.9 – 6.1 mm, width is 2.3 – 2.6 mm. Phytophagan pupation begins in April after reaching the soil temperature at a depth of 10 cm +5.7 °C and coincides with phenological stage of swelling buds of Idared variety. Imago exit from the soil begins 5-6 days before flowering trees of Idared variety and the amount of effective temperatures of 138-147 °C at the depth of bedding cocoons. Bulk emergence and laying eggs by females coincide with the flowering of apple trees. Duration of laying eggs, embryonic development and revival of larvae depend on the weather conditions of the year. Revival of larvae begins late flowering of an apple tree and lasts until early abscission of superfluous seed-bud. Feeding larvae lasts 29-31 days. In early June larvae finished feeding migrate into the soil for pupation. Development cycle of the pest depending on the weather lasts 62-66 days.

Thus in the development of an apple fruit sawfly there is a synchronicity in passing certain stages of development and phenology of an apple tree under conditions of Right-bank forest-steppe of Ukraine.

**Key words:** apple fruit sawfly (*Hoplocampa testudinea* Klug.), depth of bedding cocoons, biometric indicators of cocoons, biological characteristics of the development, phenology of an apple tree.