Honeydew producer insects and their potential honeydew honey in Turkey

Selma ÜLGENTÜRK[1], Benjamin COSİC[1], A. Özge KURNAZ[1], Işıl ÖZDEMİR[2], Kadriye SORKUN [3]

[1]Department of Plant Protection, Faculty of Agriculture, Ankara University, Turkey

[2] Republic of Turkey Foods, Agriculture and Livestock Ministry, Directorate of Plant Protection Central Research Institute, Turkey

[3] Department of Biology, Art & Sciences Faculty, Hacettepe University, Turkey

ulgentur@agri.ankara.edu.tr

Aim of Study: The aim of this study was to survey honeydew producing insect species that source for honeydew honey in forest of Black sea Marmara and Mediterranean regions. *Marchalina hellenica* Gennadius (Hemiptera: Marchalinidae) is one of the important source of Pine honey, its honeydew in large quantities which is collected by honeybees and used pine honey production.

Material and Methods: In survey, sampling was carried out twice per week during spring and summer in the years of 2016 and 2017. Scale insects and aphids were collected from 20 cm infested branches of host plants forests of mainly in Antalya (Mediterranean), Bolu, Giresun (Black Sea) and Kırklareli (Thracian region) in Turkey. Slides were mounted for light microscopy using the methods of Kosztarab & Kozar (1988) and Hille Ris Lambers (1950) respectively.

Results: It was found that there were several species of honeydew producers on pine, cedar, oaks, spruce, fir and various shrubs. *M. hellenica* (?) on *Picea orientalis*, *Physokermes hellenicus* (Kozàr & Gounari) on *Abies bommülleriana* and *Metcalfa pruinosa* Say (Hemiptera: Flatidae) and some other honeydew producer species on different host plant and forest areas. All produce large amount of honeydew depending on their population size. The using of honeydew from these insects and their potential of honeydew honey are discussed.

Keywords: *Marchalina hellenica, Picea orientalis*, *Physokermes hellenicus, Metcalfa pruinosa.*