

رتبه اول خارجی *Foreign First Winner*

Project Title:
Contribution to Science and Practice
of Apiculture

Researcher:
Jerzy Woyke (Ph.D.)

Country:
Poland

University:
Warsaw University, Poland



عنوان طرح:
مسائل علمی و عملی زنبورداری

محقق:
دکتر جرزی ویکه

کشور:
لهستان

دانشگاه:
دانشگاه ورشو لهستان

Abstract:

Woyke proved that queen honeybee is mated by several drones and not by 1 as it was believed before. This changed the genetics of honeybees. Honey bee queens mate in open air, where the parents can not be controlled. Woyke worked out a standard method of instrumental insemination of queens with semen of 8 drones. This increased honey production considerably. It was believed that females develop from fertilized eggs and males from unfertilized ones. Woyke showed that due to inbreeding drones develop also from fertilized eggs. However they are eaten as 6-hour-old larvae by worker bees. As a result up to 50% of brood disappears. Such bee colonies are weak and produce very little honey. Woyke showed that by avoiding inbreeding, honey production is increased considerably. European bees produce 10 times more honey in south East Asia, than the native Eastern bees. However European bees could not survive in South East Asia longer than 1-3 years due to a parasitic mite *Tropilaelaps Clareae*. Woyke investigated biology of that mite and elaborated efficient method of control of that parasite without the use of any medicine. This saved European bee in South East Asia, as a result honey production increased several times.