الخامس	رقم البحث
الدكتور/ حلمى محمد البندارى الأستاذ المساعد بقسم وقاية النبات كلية الزراعة جامعة الفيوم	اسم الباحث
مشترك مع أخرين ومنشور في مجلة دوليه متخصصة محكمة ولها سمعه دوليه عالية ومعامل تأثير مرتفع ٩٩،١ (Q2) وغير مستخلص من رسالة.	نوع البحث
استخدام زيت السترونيلا لحماية عسل النحل honeybee Apis mellifera استخدام زيت المبيدات الحشرية وصورها النانومترية.	العنوان باللغة العربية
Using Citronella to Protect Bees (honeybee <i>Apis mellifera L</i> .) from certain Insecticides and Their Nano Formulations	العنوان باللغة الإنجليزية
Brazilian Journal of Biology., 2021, vol. 81, no. 4 pp.899-908. https://doi.org/10.1590/1519-6984.230140. <b>Thompson Impact Factor 1.271</b>	مكان النشر (مجله دولي)
7.71	سنة النشر
Abstract: Experiments were performed investigating citronella (Cymbopogon winterianus Jowitt) as a repellent to honeybee Apis mellifera (L.) (Hymenoptera: Apidae) in Egypt, it was conducted in laboratory in the Department of Entomology and Pesticides Science, Faculty of Agriculture, Cairo University, to check long-term survival of honeybee when exposed to different nano insecticides alone or combined with citronella at the same examination box for each. In this study, we used a modeling approach regarding survival data of caged worker bees under chronic exposure to four insecticides (Chloropyrophos, Nano-chloropyrophos Imidacloprid, Nano-Imidacloprid) each of them was supplemented in a box alone and in combination with citronella. Having three replicates and five concentrations (100, 200, 300, 400 and 500 ppm). Laboratory bioassay of these insecticides showed that chloropyrophos and nano chloropyrophos were the most toxic at their high dose (500 ppm) with	الهلخص الإنجليزي

LT50 of 120.98 and 122.02 followed by 132.14 and 136.5 minutes for Imidacloprid and Nano-Imidacloprid, respectively. No consumption occurred by bees to mixed sugar syrup with insecticides in all treatments when citronella was added. These data highly recommended that adding citronella is very effective when nicotinoid pesticides are used to longevity honeybee life and keep bee safe.