

Minutes of Webinar
“Biological Control of Insects Pests of Citrus”
Held on 13-4-2023

In pursuance of annual Work Plan for the year 2022-23, PHDEC planned to hold a series of product specific and capacity building webinars. In this context, a webinar on “Biological Control of Insects’ Pests of Citrus” was conducted on 13th April, 2023. The primary aim of the webinar was to train the farmers/growers on the issue of insects pests of citrus and its biological control measured.

A large number of stakeholders from citrus sector joined the webinar through Zoom link. Following experts were invited from University of Sargodha by PHDEC to give presentation to the stakeholders of the citrus.

Speakers Name	Organization	Designation
Dr. Muhammad Azhar Nawaz	University of Sargodha	In charge/Assistant Professor Department of Horticulture
Dr. Irfan Ullah	University of Sargodha	Chairman/Associate Professor, Department of Entomology
Dr. Zeeshan Majeed	University of Sargodha	Assistant Professor Department of Entomology

Mr. Zulqarnain Zaka (A.M Agri-Products) briefed about the purpose of the webinar. After introduction, he welcomed all the participants and extended the thanks for attending the webinar.

Mr. Athar Hussain Khokhar (CEO-PHDEC) gave the opening remarks who introduced himself and explained about the mandate and scope of PHDEC. After introduction, he welcomed all participants of webinar (growers, processors, exporters and academic circles) and extended the thanks for attending the webinar.

Major points discussed during Webinar;

- **Dr. Muhammad Azhar Nawaz** from University of Sargodha provided a detailed overview of citrus orchard management with special emphases related to flower setting, fruit development, insect/pest & disease management, and nutrition management. He emphasized on following;
 - As citrus flower setting is in progress these days, so this is very critical time period for getting better yield and quality of the product.
 - He emphasized on regular monitoring in the orchards and suggested to follow the recommendations
 - He suggested the citrus growers to use proper irrigation, balanced used of fertilizer, insect pest management and proper pruning of citrus plants.

- **Dr. Irfan Ullah** from University of Sargodha provided a detailed overview of Biological control of insect's pests of citrus. He mentioned important insect pests of citrus and their biological control method. He briefed in details about China Pakistan citrus pest management Centre.
 - Chinese and Pakistani scientists are collaborating to develop biological control measures to enhance the quality and quantity of citrus fruits in Pakistan.
 - A research Centre China-Pakistan citrus pest management Centre, was launched in the two countries in 2018 to jointly explore green and sustainable solutions of citrus pests.
 - South China Agricultural University and Sargodha University, has an extensive research work done on the subject matter.
 - He also mentioned that sucking insect is more damaged to citrus plants then chewing insects
 - He focuses on the use of "lure and kill" technology to dispel pests. For example, the researchers have investigated how different types of traps and lures will affect the efficacy of capturing pests in citrus orchards across six citrus-producing Pakistani cities.
 - He explained future perspectives that mass production of psyllid natural enemies under laboratory conditions by using the rearing technologies developed by South China Agriculture University.
 - Production of microbial based biopesticides developed by South China Agriculture University at the centre.

- **Dr. Zeeshan Majeed** from University of Sargodha provided a detailed overview of bio rational insect pest's management approaches for citrus orchards.
 - He mentioned that each year both in orchards and nurseries of citrus insect pests cause considerable quantity and quality loss of citrus.
 - He suggested that some least toxic and environment friendly control options for a bio rational management of citrus insect pests used.
 - He advised strategies of bio rational insect pests management. Application of biocontrol agents, use of phytoextracts and essential oils.
 - Use of pests resistant and certified plant material
 - Applications of biocontrol agents.
 - Reproductive/genetic control options.

The participants satiated themselves with the answers of their questions in the webinar that lasted for around 02 hours and appreciated the PHDEC's initiative of conducting the webinar on an important topic of Biological control of insect's pests of citrus.

Mr. Khawar Nadeem, Manager Agri Products PHDEC, thanked the participants for their time and assured that PHDEC is available for any kind of guidance and facilitation to the stakeholders.

The participants thanked PHDEC and its management for reviving its product development and capacity building initiatives.