



International Association for the
PLANT PROTECTION SCIENCES

NEWSLETTER

Number IV

April, 2022

UPDATES FROM IAPPS REGION X (NEARC)

Present committee members

Dr. Izuru Yamamoto, Senior Advisor

Dr. Noriharu Umetsu, Senior Advisor

Dr. Tsutomu Arie, a representative of the Phytopathological Society of Japan, IAPPS coordinator for Region X

Dr. Tarô Adati, a representative of Japanese Society of Applied Entomology and Zoology

Dr. Hiromitsu Moriyama, a representative of Pesticide Science Society of Japan, the secretary general of Region X

Dr. Rie Miyaura, a representative of The Weed Science Society of Japan

The Phytopathological Society of Japan and Pesticide Science Society of Japan became official partners of IYPH2020 by FAO and Ministry of Agriculture, Forestry and Fisheries (MAFF) of Japan, and endeavored to educate the society on plant protection.

https://www.maff.go.jp/j/syouan/syokubo/keneki/iyp/h/iyp_h_os.html

Below an update on annual activities related to IAPPS especially to IPM of plant diseases, insects and weeds, and plant regulation (from April 2020 to March 2021)

The Phytopathological Society of Japan (PSJ)

- 2020 Kanto District Meeting, Online; Sep 21–22, 2020
- 2020 Kansai District Meeting, Online; Sep 21–22, 2020
- 2020 Tohoku District Meeting, Online; Oct 12–14, 2020
- 2020 Hokkaido District Meeting, Online; Oct 15, 2020
- 2020 Kyushu District Meeting, Online; Nov 24–26, 2020
- 2021 Annual Meeting, Online; Mar 17–19, 2021

Japanese Society of Applied Entomology and Zoology (JSAEZ)

- 65th Annual Meeting, online, March 23–26, 2021
- 28th Annual Research Meeting of the Japan-ICIPE Association, online, March 25, 2021

Pesticide Science Society of Japan

- 37rd Study Group Meeting of Special Committee on Bioactivity of Pesticides, online, Sep 18, 2020
- 40th Symposium of Special Committee on Agricultural Formulation and Application, Yokohama, Kanagawa; Oct 15–16, 2020 (Cancelled due to the spread of COVID-19)

- 43th Annual Meeting of Special Committee on Pesticide Residue Analysis, online, Nov. 5–6, 2020
- 46th Annual meeting, Fuchu, Tokyo and Online, March 8–10, 2021

The Weed Science Society of Japan (WSSJ)

- 2020 Annual Meeting, The Weed Science Society of Kinki, Online; Dec 5, 2020
- 35th Symposium of Weed Science Society of Japan, Online; Dec 12, 2020
- 2020 Annual Meeting, Kanto Weed Science Society, Online; Dec 22, 2020
- 22th Annual Meeting, The Weed Science Society of Tohoku, Japan, Online; Feb 25, 2021
- 2020 Study Group Meeting of Weed Utilization and Management in Small Scale Farming, Online; Feb 26, 2021

Hono-Kai (means, Meeting who are appreciating agriculture)

- 35th Hono-Kai Symposium was cancelled due to the epidemic of COVID-19

Japan Biostimulants Association

- 3rd Symposium, Online; Nov 2–30, 2020

Nodai Research Institute

- 2020-1 Biological Control Group Seminar, Setagaya; Tokyo; Jun 16, 2020 (Cancelled due to the epidemic of COVID-19)
- 2020-2 Biological Control Group Seminar, online, Nov 13, 2020
- 2021-1 Biological Control Group Seminar, online, Jun 15, 2021
- 2021-2 Biological Control Group Seminar, online, Nov 9, 2021

Dr. Tsutomu Arie

IAPPS Coordinator Region X, Northeast Asia

E-mail: arie@cc.tuat.ac.jp

STEM FLY (*OPHIOMYIA PHASOLI*) INFESTATION IN JAMMU REGION

Stem fly (Bean fly, snap bean fly) (*Ophiomyia phasoli*, Tryon), one of the most dangerous agromyzid flies in the world, is a serious pest of black gram and also attacks other legumes especially beans and peas. It was first recorded from Bulimba near Brisbane, Queensland, Australia in 1888 by Henry Tryon.

It has been recorded from all the blackgram growing districts of Jammu region (Udhampur, Jammu, Samba, Kathua). Its infestations were first noticed during 2019, after which it occurred in 2020 and 2021 in serious forms. The specimen samples of the pest have been collected and submitted to the National Bureau of Agricultural Insect Resources (NBAIR), Bengaluru, India for confirmation.

An early examination of the infested plants revealed oviposition marks on stem or leaves. The adult flies were small and shiny black flies with clear wings. The presence of swollen and cracked stems at the plant base also indicates pest infestation. Infected stems when dissected, were reddish



brown from inside (sometimes pale) and a distinct zig-zag tunnel was observed with maggots or pupae inside it (picture on the left). Maggots mine the leaves or bore into the leaf petiole or tender stem resulting in withering, drooping and wilting of the plant.

The symptoms of damage include dropping of the first two leaves and yellowing plants. At the infestation site of plant, the stem or leaf gets swollen and start rotting. Yield losses of 5 to 50 per cent in blackgram have been noticed, which is quite high above the economic threshold (ETL) of stem fly (10 per cent affected plants).

To keep in check, the further spread and infestations by these pests, the following management strategies were recommended to the farmers of the region:

- Clean cultivation, crop rotation, growing trap crops and destroying alternative host plants like *Solanum nigrum*

to minimize the stem fly incidence.

- Collect and destroy crop debris.
- Avoid water logging.
- Grow resistant varieties.
- Spray of neem oil @ 5ml/litre or 5% Neem Seed Kernel emulsion (NSKE) or azadirachtin 3000 ppm @ 5ml/litre of water to kill eggs and neonates.
- Imidacloprid 30.5 SC or Thiamethoxam 25 WG @ 0.5 g/litre or Dimethoate @ 1.5 ml/litre of water may be applied.
- Apply Fipronil 0.3 GR or Cartap hydrochloride 4G @ 10 kg/ha or Fipronil 4% + Thiamethoxam 4% w/w SC @ 5-6 kg/ha.
- The braconid *Opius phaseoli* Fischer, may cause almost 90% pest mortality in some regions. Species of *Sphegigaster* spp. (Pteromalidae) may bring about 45% fly mortality, however none of these could be recorded in the region.

Drs Reena, Kanika Pagoch, A.P. Singh, Sonika Jamwal and P.K. Kumawat
Advanced Centre for Rainfed Agriculture, Jammu, Jammu and Kashmir, India
E-mail: bkreena12@gmail.com

The IAPPS Newsletter is published by the International Association for the Plant Protection Sciences and distributed in *Crop Protection* to members and other subscribers. *Crop Protection*, published by Elsevier, is the Official Journal of IAPPS.

IAPPS Mission: to provide a global forum for the purpose of identifying, evaluating, integrating, and promoting plant protection concepts, technologies, and policies that are economically, environmentally, and socially acceptable.

It seeks to provide a global umbrella for the plant protection sciences to facilitate and promote the application of the Integrated Pest Management (IPM) approach to the world's crop and forest ecosystems.

Membership Information: IAPPS has four classes of membership (individual, affiliate, associate, and corporate) which are described in the IAPPS Web Site www.plantprotection.org.

The *IAPPS Newsletter* welcomes news, letters, and other items of interest from individuals and organizations. Address correspondence and information to:

**Manuele Tamò
Editor, IAPPS Newsletter
IITA-Benin
08 B.P. 0932 Tri Postal, Cotonou, Republic of Benin
E-mail: m.tamo@cgiar.org**