Brown Planthopper May Threaten Rice Production

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Brown planthopper (Nilaparvata lugens) is a pest with a fast growth that threatens the rice production in Indonesia. The pest has damaged rice centre areas in Java and outside Java in the past two years.

Dr. Ir. Sri Nuryani Hidayah Utami, MP., M.Sc, Deputy Dean of Faculty of Agriculture UGM, said the attack of brown planthopper during the rainy season in 2016 tend to increase. Efforts have been taken to control the population of pests.

Sri Nuryani said based on weather predictions, past experiences, and incorrect use of pesticides, pest population explosion and extent of infected areas in the next season could be triggered.

"So, an integrated early measure that is in line with the principle of Integrated Pest Control needs to be implemented to reduce the risk of planthopper explosion and the virus transmission by the pest," said Nuryani at the Faculty of Agriculture UGM on Monday (13/3) in a group discussion on 13 February. Attending the discussion were Director for Staple Crop Protection in the Agricultural Ministry and Heads of Staple Crop and Horticultures Protection Office from various provinces (Jakarta, West Java, Banten, Central Java, Yogyakarta, and East Java), as well as experts from IPB, UGM, and UB universities.

Sri Nuryani explained that the group formulated preventive measures to minimise the population of brownplanthopper for short term, medium term and long term.

"The short term includes control of areas that have received pesticide controls, whether chemical synthetic, plants, or microbes to evaluate the result so that it can be made the bases for control in the future," she said.

For the dry season 2017, said Sri Nuryani, farmers should grow rice cultivars that can resist the planthopper. Farmers should also make cultivars turns to prevent the break of resistency by new biotype. They also need to grow refugia in planthopper endemic areas, intensive and representative monitoring for early detection of pests. Control of infected plants should refer to the Integrated Pest Control. Farmers need to be educated, especially in rice centre areas and planthopper endemic areas, so they can observe and report. For the medium and long term, improvement of sustainable ecosystem services is needed.

Operational steps include increasing awareness among farmers, field workers, and researchers on the brown planthopper issue, mapping of biotype and pest resistant, as well as evaluation of pesticides, especially the impact on natural enemies and the ability of the pest to produce eggs.

"Other measures to do are multiplication and release of specific parasitoid for brown planthopper, training on the risk of use of pestisides for environment and human, use of plant based pestiside or microbe refering to Integrated Pest Control, invention of resistant cultivar and design of cultivar management to extend the life of such cultivar and delay the development of brown planthopper biotype, etc," she concluded.

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