



Southeast Asia Plant Protection Conference

*Plant Protection Sciences
for Future Life*

PROGRAM BOOK

August 14th, 2019
IPB International Convention Centre
Bogor - Indonesia

Organized by



Department of Plant Protection
Faculty of Agriculture

Co-Organizer



CONFERENCE PROGRAM

| Date | Time | Activity |
|------|-------------------------|---|
| | 08.30-09.00 | Registration |
| | 09.00-09.05 | Chairman of the Conference: Dr. Ir. Giyanto (report of the activity) |
| | 09.05-09.15 | Rector of IPB University: Dr. Arif Satria, S.P M.Si (Opening Ceremony) |
| | | Keynote Speech: |
| | 09.15-09.35 | Dr. Arif Satria, S.P M.Si <i>Tecnology 4.0 and a Regional Cooperation for Management of Emerging and Transboundary Pest and Diseases</i> |
| | 09.35-10.00 | Coffee Break |
| | | Invited Speakers Session : |
| | | Dr. Ir. Suryo Wiyono, M.Sc.Agr (Indonesia) <i>Building New Phase of IPM in Indonesia</i> |
| | | Prof. Dr. Christian H. Schulze (Austria) <i>Avivaunal fungsional dieiversity in land-use systems in the Indonesian Archipelago</i> |
| | 10.00-11.00 | Prof. Dr. Chiharu Hongo (Japan) <i>Damage Assessment Of BLB By Remote Sensing Data</i> |
| | Each Person @15 Minutes | Dr. Christopher Wheeler (United State of America) <i>Mating Disruption: A Tech for Crop Protection</i> |
| | 11.00-11.30 | Discussion |
| | 11.30-12.30 | Poster Session |
| | 12.30-13.30 | Lunch Break |
| | 13.30-14.15 | Parallel Session 1 |
| | 14.20-14.55 | Parallel Session 2 |
| | 15.00-15.35 | Parallel Session 3 |
| | 15.40-16.15 | Parallel Session 4 |
| | 16.20-16.55 | Parallel Session 5 |
| | 17.00 | Closing Ceremony |

August 14th, 2019

Abstract ID: C-03

**IDENTIFICATION OF *Spodoptera* SPECIMENS COLLECTED
ON CORN FIELD IN PRINGSEWU DISTRICT,
LAMPUNG PROVINCE, INDONESIA**

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Specimens of *Spodoptera* larvae collected on March 19, 2019 from a corn field in Lampung Province were brought to the laboratory of the Department of Plant Protection, University of Lampung, for identification. It was suspected that the larvae were *Spodoptera frugiperda* which have also been currently found in India, Thailand, Bangladesh, China, Myanmar, and Sri Lanka. Morphological identification was conducted in two steps: (1) pictorial/color identification and (2) detailed morphological identification by examining external structures of the larvae. DNA sequencing and identification were also performed to further confirm the morphological identification. Prior to the identification process, brief field observations were conducted to estimate plant damage percentage and to characterize the nature damage. Field observation indicated that *Spodoptera* larvae caused damage to corn plants by consuming foliage and making holes in leaves damaging approximately 72% of corn plants. Feeding in the whorl of corn produced a characteristic row of perforations in the leaves. Based on the morphological characteristics, it is concluded that the larvae belong to the species of *Spodoptera frugiperda* J.E. Smith (Lepidoptera: Noctuidae). This conclusion was then confirmed with the results of molecular (DNA) identification. The sequence of DNA was in proximity to the sequence of DNA of *Spodoptera frugiperda*. Phylogenetic tree analysis showed that their DNA sequences were in the same group with *S. frugiperda* isolates of Honnali (MH753325.1), Hanchipura (MH753332.1), Belagavi (MH753329.1), KEPH A (MH190444.1) and EPHE.1 (MH190445.1). Based on these finding, therefore, it is confirmed that the specimens belong to the species of *Spodoptera frugiperda*.

Keywords: *Spodoptera frugiperda*, corn, morphological identification, DNA sequencing and identification