

**First report of Diaporthe/Phomopsis complex isolates in soybean from Malaysia and their longevity in stored seeds.**

ABSTRACT

Diaporthe/Phomopsis Complex (DPC) can infect soybean seed and reduce its germination in the field and also survive on the seed during storage. Ten soybean seed lots which were stored at 0°C for up to 13 years were used to evaluate the percentage of DPC infection on them and also to identify the DPC isolates. Morphological and molecular methods were used to determine the longevity and frequency of DPC isolates in stored soybeans seeds. Conventional and nested Polymerase Chain Reaction (PCR) was used for amplification of pure cultures and seed lots. The longevity of isolates in storage was found to be <9 years which suggested that Diaporthe/Phomopsis sp., can survive up to 9 years in cold storage (0°C). Six isolates of DPC were detected, identified and characterized based on morphological and molecular methods in soybean seeds for the first time in Malaysia. Most of the isolates identified belonged to *Phomopsis longicolla* and only one isolate identified from *Diaporthe Phaseolorum* var. *sojae*. All isolates that were identified using morphological technique were confirmed using molecular method and registered in national center of biotechnology information (NCBI). The result of this study showed that DPC isolates can survive for long time in storage.

**Keyword:** Diaporthe/Phomopsis; Isolate; Longevity; Soybean; Storage.