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Graft compatibility between *Solanum lasiocarpum* and *Solanum torvum* as a potential tool to mitigate soil-borne diseases in Sarawak

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Terung Asam Sarawak (*Solanum lasiocarpum* Dunal) is a unique indigenous fruit vegetable in Sarawak. A recent product development work by researchers in the Department of Agriculture Sarawak showed that the fruit can be processed into various products such as juice, jam, puree and dehydrated slices. These products provide opportunities for commercialization of the crop. However, the crop is very susceptible to many soil-borne pathogens in particular bacterial wilt and phytophthora. This problem hampers the big scale planting of the crop. Hence, grafting work was initiated to mitigate the problem. Six to eight-leaves plants were used for grafting and wedge and saddle methods were compared. Initial studies showed promising graft compatibility between *Solanum lasiocarpum* as scion and *Solanum torvum* as rootstock. Yield of grafted plants were between 1.5 and 3.2 kg/plant which is comparable to the non-grafted plants. Saddle technique looks more promising than the wedge technique. Field performances of the grafted plants are being monitored and their fruit nutritional contents will be analyzed.

Biography

Maclin Dayod is currently the Head of Crop Breeding and Miscellaneous Crops Section in the Research Division of the Department of Agriculture Sarawak, Malaysia. Since 2012, his research work focuses on breeding for good eating quality in *Oryza sativa* L and varietal improvement in *Solanum lasiocarpum* Dunal. He is also responsible for the conservation and propagation of various crops which include pepper and other spices, herbs and medicinal plants. He also had researched on the impact of calcium on plant water channels (aquaporins) and uptake for his PhD and the physiological changes in barley due to waterlogging for his Master's degree.

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