

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



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Introduction



- *Solanum lasiocarpum* Dunal (Terung Asam Sarawak) is a special plant of Sarawak.
- The fruit has a unique sour taste and is a favourite among the locals as vegetable and flavouring in many local dishes.
- Recent work on product development showed that the fruit can be processed into various products such as dehydrated slice, jam, juice etc.

Introduction

- Unfortunately, commercial planting of the plant is hindered in particular by soil-borne pathogens such as bacterial wilt, fusarium wilt, *Phytophthora* , etc.
- Hence, there is a need to find a way to mitigate the problem.
- One way is grafting of *S. lasiocarpum* with tolerant/resistant species of the same genus.

Various shapes & sizes



Dehydrated slices



Jam



In brine



A recommended variety



Juice

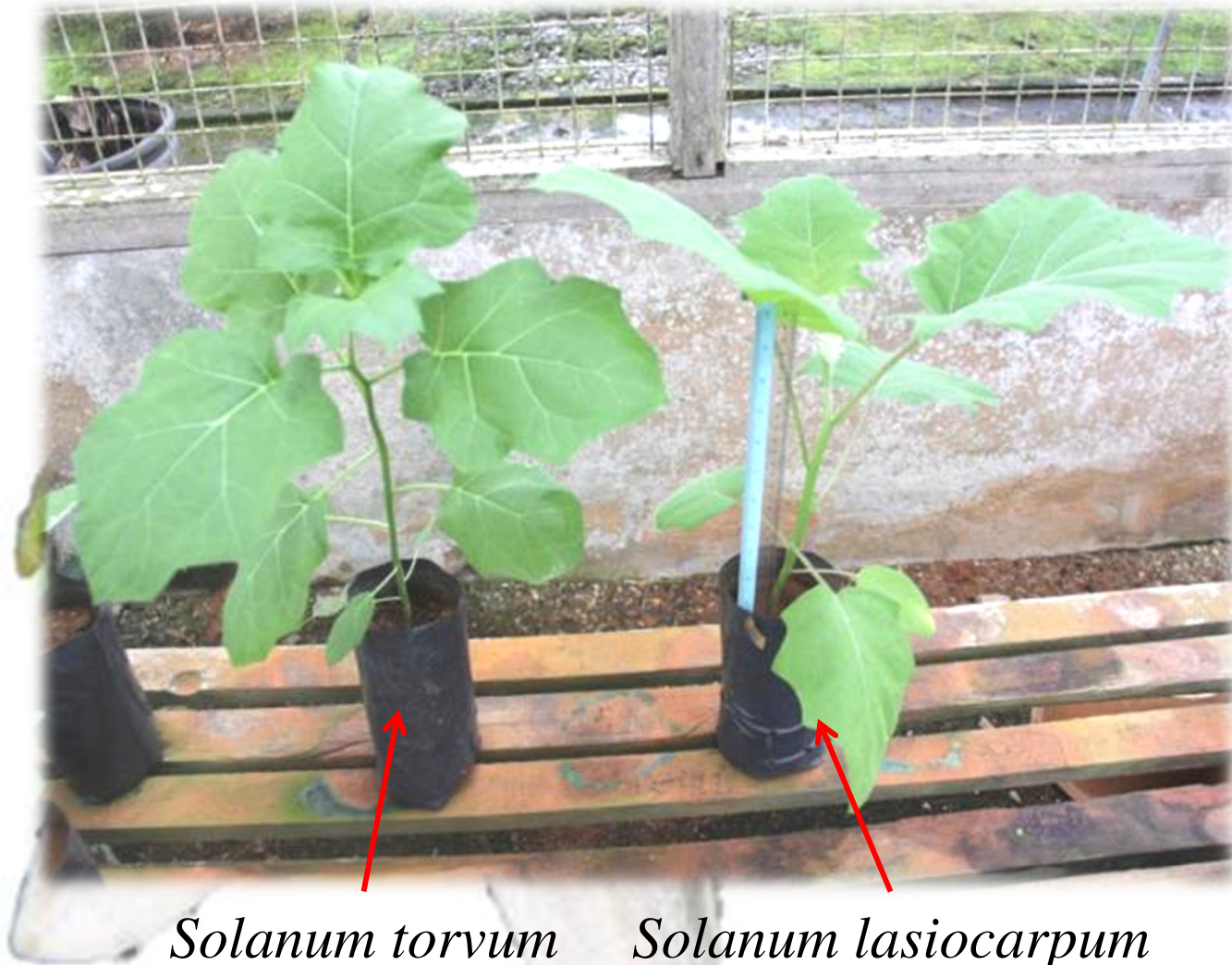


Solanum torvum



- Young fruits – can be eaten (cooked)
- Root decoction – stomach ache, insect bite, blood cleansing, etc.
- Perennial
- Tolerant to some soil-borne pathogens, drought

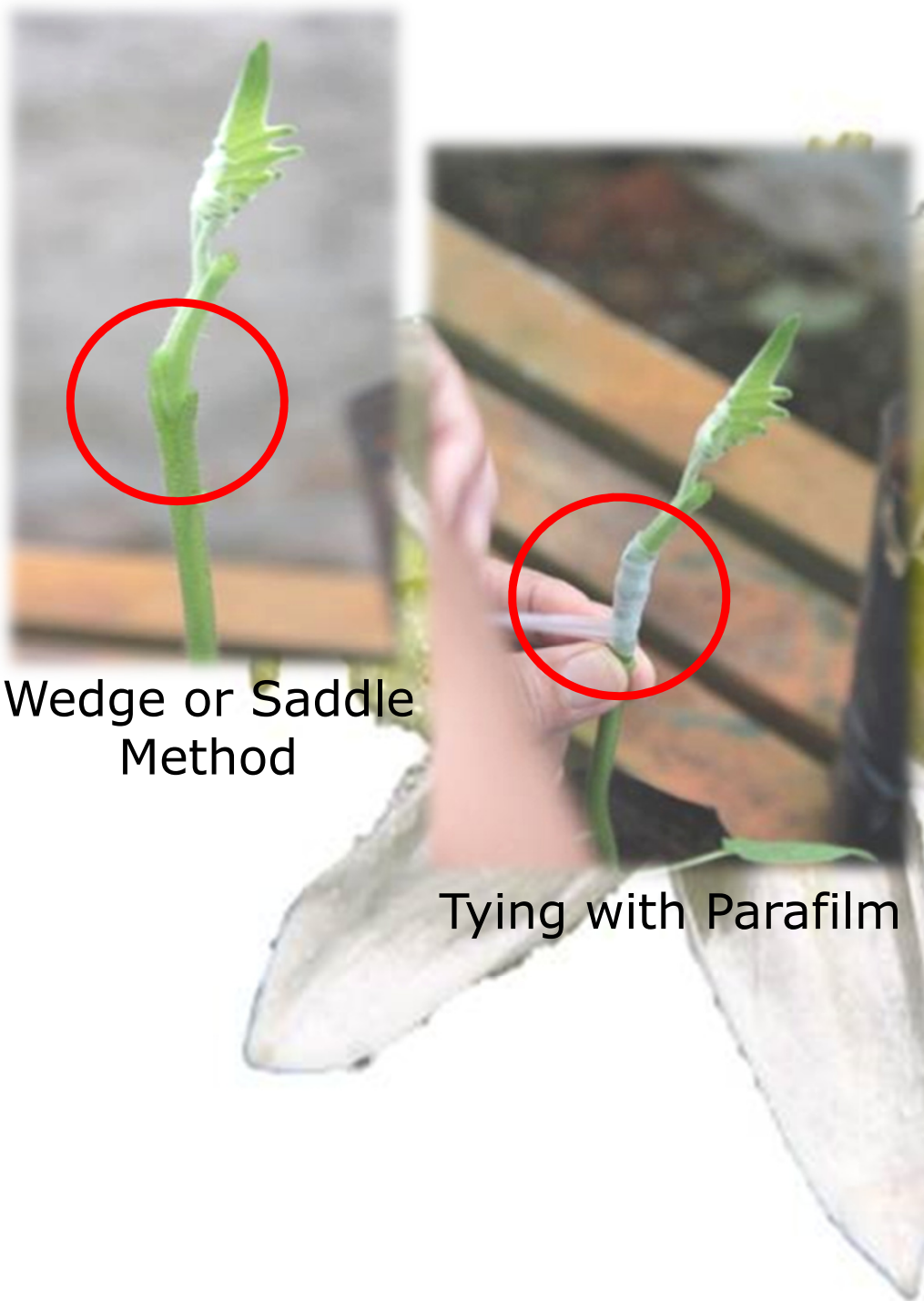
Grafting Technique



Solanum torvum
as rootstock

Solanum lasiocarpum
as scion

- 6-8 leaves (\pm 2.5 mth) seedlings



Wedge or Saddle Method

Tying with Parafilm



Cover grafted plants with clear plastic bags (± 1.5 mth)

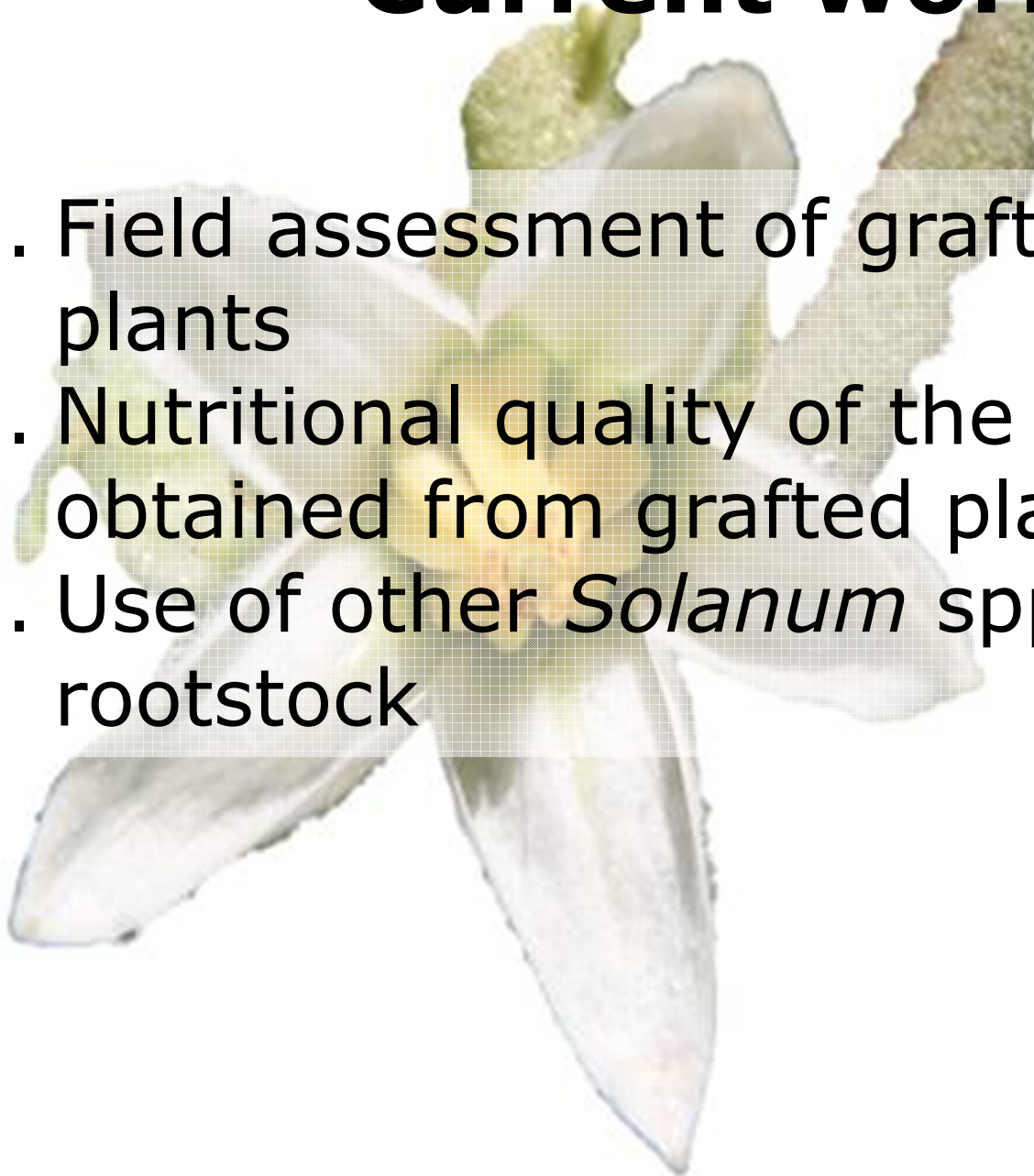


Results

- *S. lasiocarpum* can be grafted onto *S. torvum*
- Average yield = 2.5 kg/plant
- Saddle method gave higher success rate
- Seeding to harvest = ± 10.5 mth
- Success rate is dependent on various factors such as:
 - Health status of the scion and the rootstock
 - Environment (humidity, temperature & light)

Current work

1. Field assessment of grafted plants
2. Nutritional quality of the fruits obtained from grafted plants
3. Use of other *Solanum* spp as rootstock



THANK YOU



Your feedback is highly appreciated

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My hometown, Sarawak, Malaysia