

## Chapter VIII

### Recommendation

The results from the study are expected to provide basis for recommendation of appropriate management practice and techniques of grafting for growing and propagating mango as the followings:

1. Vegetative techniques of propagation, growing techniques, fertilizer and pest management and pruning techniques are needed for the mango growers in the province through training and field trips, in order to provide them knowledge, skills and ideas for improving their mango production. Since in the past or even at the present time farmers still practice traditional methods, which are causes of low quality and productivity.

2. Related agencies, organizations and institutions should pay more attention on the research on vegetative propagation of fruit crops and transferring research progress findings to the farmers.

3. Setting up farmers' school to be a place for learning process, transferring and sharing expertise and local wisdom between technicians and farmers. Producing more grafted materials of improved cultivars in order to support farmers and finding market outlets are alternatives to enhance mango industry in Lao PDR.

4. Side veneer grafting technique on old aged seedling rootstocks is suitable and appropriate for the farmers, due to this technique can be used for producing the grafts for sale by grafting good scions on the 1 year-old seedling rootstocks. Side veneer grafting is also suitable for the new mango orchards with the trees 23 years of age but not more than 5 years, which have been grown already in the farmers' fields. This technique is also

possible for the farmers, who have old mango orchards below 10 years of age and want to change undesirable varieties with desirable one.

5. Stone grafting technique is also suitable for the farmers, who want to apply for both commercialization and home use, due to its shortest time consuming and low cost, especially 5 and 10 day-old seedlings. Because, the stem size of the seedling with the ages of 5 and 10 days is big enough for grafting (0.43 cm). But this technique needs further research to obtain high success of graft survival. To achieve this goal, the following suggestions may be operated to avoid disease infection:

5.1. Media using for sowing the stones should be clean and free from soil borne diseases, by any method of soil sterilization such as putting it in the autoclave for 36 hours at 70-80°C, heating using fire, or by fumigation.

5.2. Both rootstock and scions should be free from diseases and should have the same size. Scion at the early of mature stage is suggested to defoliate and only a few leaves remain.

5.3. Before planting grafted seedlings in the transparent plastic bags, spraying benomyl fungicide 0.003 ppm is needed.

5.4. Before grafting was done, normal soil moisture in the plastic container should be kept, since the high humidity will be occurred and this condition will enhance the disease infection. If possible, seedling rootstocks should be moved to the place where rain is possible to protect.

5.5. Those polyhouses should be kept under the 80-percent shading material in the nursery, but nursery sides should also be protected the direct sunlight by using 50-percent shading material to allow normal air circulation. High temperature would stimulate violence of pathogens.