

**Title** Sample postharvest techniques to control bacterial soft rot of cabbage in Cambodia, Laos, and Vietnam

**Author** A. Acedo Jr., M. Vannady, B. B. Buntong, T. Chanthasumbath, C. Phommachan, H.T.L. Hang, N.T.T. Linh, and N.T. Hanh

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**Keyword** cabbage; bacteria soft rot; postharvest

### **Abstract**

Bacterial soft rot is the most serious postharvest problem of cabbages in the humid tropics causing enormous losses due to trimming after transport and during marketing. As possible control measures, three indigenous and safe treatments were tested in replicated trials in Cambodia, Laos, and Vietnam: lime paste, prepared from lime powder and water in 1:1 mixture; 15% alum solution (15 g alum granules in 100 ml water); and guava leaf extract, prepared from pure extract and water in a 1:1 mixture. Commercial variety of cabbage was used. Butts (stem ends) were trimmed and some outer leaves removed from the heads. Control agents were applied to the butt using suitable applicators such as soft brushes, cloth, or cotton. Water was applied to the butt of the control heads. After air-drying, crude inoculum of bacterial soft rot was applied to the butts. The heads were then incubated under humid conditions inside a plastic bag with moistened paper. The experiment was repeated 3-4 times in each county. Lime was found to be consistently effective in preventing the disease. It totally prevented the disease in the Laos and Vietnam trials and reduced trimming loss after four days of storage to about 9% from 44% for the control in the Cambodia trial. Control heads in the Laos and Vietnam trials incurred 20-33% trimming loss due to the disease. Alum and guava leaf extract were equally effective as lime in the Laos trials. Guava leaf extract also reduced the disease to a similar extent as lime in the Cambodia trials, but alum was less effective. In the Vietnam trials, alum was ineffective while guava leaf extract was less effective than lime in controlling the disease.