

SERVICE: Production Systems

Program: Row and Trellis Crop Best Practice

PROJECT: Asian Vegetables – Best Practice

Project Officers: G. Walduck, M. Traynor, J. Thomas, G. Owens, K. Bui (industry-based IDO) and Dr. B. Thistelton (Entomology)

Location: Darwin Region

Objective:

To support the Asian vegetable industry and its organisation.

Introduction:

The industry is centered near Darwin with 50+ small growers producing a range of Asian vegetables for local and capital city markets. The main thrust of work in this area this year has been to support the grower organisation and the industry development officer (IDO) and supply information on better practice farming techniques through grower meetings, field days and printed material.

Major activities and outcomes

- Support the activities of the vegetable industry IDO (Kim Bui) and the Asian vegetable group with technical assistance.
- Print and distribute additional copies of the English/Vietnamese publication of all current DBIRD printed information on Asian vegetables, which was first released in October. This publication has been well received in the NT and is in strong demand interstate in Asian vegetable growing areas.
- Distribute a two-poster set of pests and diseases of Asian vegetables. Distributed 1000 copies of each to most growers in the NT. These have also become very popular in all other States. Over 200 posters were distributed interstate.
- Work has commenced on the preparation of a 'tool box' for agricultural pesticides for use in Asian vegetables in the NT in cooperation with Resource Protection. It is expected that a working version will be available by February 2005.
- Sweet potato variety evaluation and field day - an evaluation of new and current sweet potato varieties was carried out at CPHRF. This was followed up by a very well attended field day at the trial site where growing techniques and required machinery were demonstrated in the field. Samples of the varieties were displayed and a discussion on yields and post-harvest handling followed. A *growing note* has been prepared. Planting material was also distributed from the trial area and a number of commercial plantings have resulted from this work (see report on sweet potato).
- On 7-8 June 2004, a two-day meeting of researchers in Asian vegetables was held in Brisbane. It was organised by DBIRD and attended by 32 people. This is an RIRDC funded project (DNT29A) which once a year brings together all researchers currently working on RIRDC funded projects to improve communication and exchange ideas and results. The proceedings are being produced and will be distributed when completed.

- Two trials were conducted to demonstrate the efficacy of 100-200 ppm sodium hypochlorite (bleach) as a post-harvest treatment on okra. Reports of a black mould on okra were received at the end of the 2003 season and trials were conducted to test the efficacy of using commercial grade sodium hypochlorite (bleach) in the post-harvest wash water at 100, 200 and 400 ppm active chlorine. Benomyl as a post-harvest treatment was also trialled. Visual assessments were carried out at approximately two-day intervals for 10 days after harvest. Storage was at 6°C in the normal packaging. Rates of 100-200 ppm active chlorine gave best visual results. A rate of 400 ppm caused some damage in the longer storage times and Benomyl gave no better results than water (see Figures 1 and 2).



Figure 1. Okra five days after harvest showing water only wash



Figure 2. Okra five days after harvest showing 100 ppm active chlorine post-harvest dip

Note the absence of rotting on the snapped ends in the 100-ppm chlorine treated material.

PROJECT: Bamboo Research 2003-2004

Project Officer: M. Traynor

Location: CPHRF and a grower site

Objectives:

To trial irrigation and fertiliser inputs and scheduling for optimum shoot production for *Dendrocalamus latiflorus* conducted on established planting at CPHRF and one grower site.

To investigate thinning rates on grower sites with *D.latiflorus* in relation to shoot size and yield.

Change to objectives

Research work has been discontinued at the Kingsley site due to the withdrawal of the owner from the project because of the upcoming sale of the property. Experiments are now confined to *D.latiflorus*.

The proposed work to correlate leaf nitrogen levels with shoot sap nitrate levels has not progressed. Research results from the Eumundi site in Queensland show no consistent correlation. Trends also indicate that the major application of nitrogen needs to be done at least four to six weeks before the