

Litchi production in India / International symposium

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LITCHI PRODUCTION IN INDIA

Litchi was introduced to India through Myanmar and the North Eastern region in the 18th century. Litchi orchards that are more than 200 years old are still growing in Tripura. India is the second largest producer of litchi in the world.

Presently litchi is cultivated on an area of about 84 000 ha with a total production of 575 000 tonnes. There was a sharp increase in production area from 11 410 ha in 1961 to between 62 000 and 84 000 ha in 2014/15. Bihar, the state where the symposium was held, is the biggest litchi producer in India with 44% of the country's production, followed by West Bengal (16%).

The industry is based on mainly two commercial cultivars, namely 'Shahi' and 'China'. 'Shahi', a mid-season cultivar, is very similar to 'Mauritius'. 'China' is a mid-late season cultivar similar to 'Brewster'. Other cultivars with minor plantings are 'Bedana', 'Purbi', 'Mandrajji', 'Deshi', 'Bombai', 'Rose Scented' and 'Kaspa' (Fig. 1).

The National Research Centre for Litchi (NRCL) has its own breeding programme and gene bank. The harvesting season stretches from mid-April to beginning of July in the main production areas and mid-December to mid-January in the non-traditional litchi areas in the south. The national average production of litchi is 6,9 t/ha, but can reach 20-25 t/ha under well managed orchard conditions. Sixty-five to seventy-five percent of the crop is marketed locally, 2-3 percent is processed and only a negligible amount is exported to the Middle East and Asia.

Major constraints in the Indian litchi industry are displayed in Figure 2. Litchi production in India is still very extensive with many small-scale farmers.

Improving technology transfer, orchard management and infrastructure (pre and post-harvest) will be the greatest keys to advance the litchi industry in India.

INTERNATIONAL LITCHI SYMPOSIUM

The 5th International Symposium on Lychee, Longan and Other Sapindaceae Fruits, was held in Bhagalpur, India, from 31 May to 3 June 2016. It was organised by the Bihar Agricultural University (BAU) in collaboration with the International Society for Horticultural Science. This symposium is held once every four years. In 2012 it was held in South Africa, and before that twice in China and once in Thailand.



Figure 1. Main commercial litchi cultivars in India. Source: Nath, 2016.

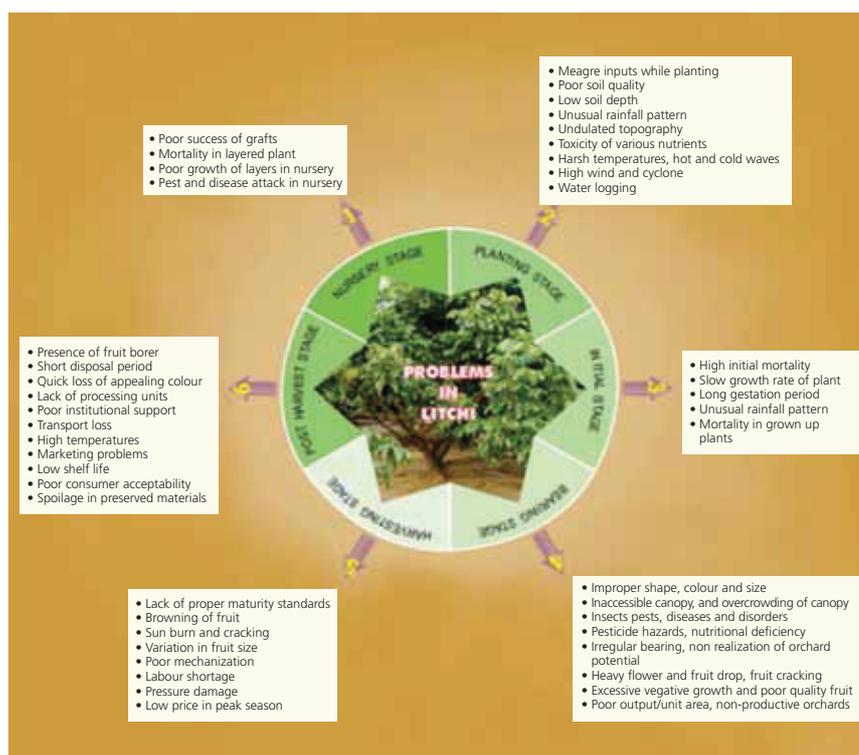


Figure 2. Constraints in the Indian litchi industry. Source: Nath, 2016.



Figure 3. Packaging for a) nearby local, b) distant local markets and c) home deliveries e.g. in Delhi.



Figure 4. a) Mid-canopy sprinkler to reduce cracking/sunburn, b) bagging against sunburn and fruit borer and c) trellis system for high quality fruit production.



Figure 5. Canopy architecture according to number of scaffold branches: a) two 1st order branches, b) three 1st order branches and c) four 1st order branches.



Figure 6. Symposium delegates and orchard owner during orchard visit (left) and NRCL researchers with South African delegates at NRCL during the post-symposium tour (right).

The symposium consisted of eight technical sessions covering topics on world production, genetic resources and breeding, physiology and biotechnology, propagation and orchard management, use of plant growth regulators, pests and diseases and post-harvest technologies in litchi, longan and rambutan.

Various research technologies presented at the symposium could

benefit the South African litchi industry, such as a sulphur-free post-harvest dip treatment with salicylic acid, Equilibrium Modified Atmosphere Packaging (EMAP) and MAP with anti-fungal and anti-condensation film for prolonged shelf-life on the local market or for air-freight, strategies to reduce fruit cracking/sunburn for e.g. 'Early Delight'/'Mauritius', strategies for delaying harvest to extend the season,

organic production, canopy management for maximum bearing surface and propagation techniques for limited plant material.

During two afternoons and at the post-symposium tour, litchi orchards and the experimental fields of BAU and NRCL were visited. Figures 3 to 6 show packaging methods, orchard management practices and symposium delegates.

For more information on presentations and publications growers can contact Regina Cronje at the ARC-ITSC.

REFERENCE

NATH, V. 2016. Litchi scenario in India. Oral presentation held at the 5th International Symposium on Lychee, Longan and Other Sapindaceae Fruits, Bhagalpur, India. 31 May – 3 June 2016. ❖