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controlling post-harvest decay in litchi. More research is necessary on new biocontrol agents and their application as alternatives to chemical treatments in the litchi industry in order to maintain a protective barrier that does not allow fungal infection, without compromising fruit integrity.

Modified atmosphere storage

Modified atmosphere packaging (MAP) has the advantage of low cost and easy

implementation at commercial level. The successful use of MAP depends on the specific permeation properties of polymer films to O₂ and CO₂ to generate atmospheres desirable for the post-harvest life of horticultural commodities. MAP technology provides two advantages for litchi:

1. It helps to reduce or prevent browning by maintaining a higher RH around the fruit inside the sealed plastic film, which prevents water loss due to transpiration, loss of membrane integrity, loss of electrolyte leakage and increased PPO activity.
2. It prevents weight loss during long term storage.

HARVESTING PRACTICES

Other factors that play a role in the whole cycle include the relative humidity and temperatures during harvesting, transportation and handling. Insects are a major problem, as lesions made by them also speed up the browning process. Browning does not necessarily effect the taste of the fruit but deems it "not marketable". There are a couple of harvesting best practices that could be followed to ensure better fruit quality. Trees that receive optimum water and nutrients, produce better fruit which ensures better shelf-life and

market performance. Insect control and orchard sanitation is critical.

To prevent loss of moisture in the pericarp, fruit should be picked early morning or late afternoon. Fruit should not be exposed to heat or direct sun after harvest, but should be transported to the pack house as soon as possible.

Pack houses should be located in a shaded area and kept cool. They should also be hygienic to minimise the risk of pathogens. Sterilise crates and work surfaces with chlorine to prevent the build-up of pathogens. Damaged fruit and waste should be removed as soon as possible.

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REFERENCE

SIVAKUMAR, DHARINI, TERRY, LEON, A. AND KORSTEN, L (2010). An Overview on Litchi Fruit Quality and Alternative Postharvest Treatments to Replace Sulphur Dioxide Fumigation. Food Reviews International, 26: 2, 162-188. ❖

Irrigation guidelines: July to September

Besproeiingsriglyne: Julie tot September



Water requirement guidelines: litre / tree / day at specific canopy coverage / ha planted 9 x 6 m (185 trees / ha)
 (Note: This is only a guideline -- needs to be adjusted for different areas with scheduling tools e.g. tensiometers, probes, evaporation pan and crop factor.)

Besproeiingsriglyne: liter / boom / dag by spesifieke boombedekking / ha geplant 9 x 6 m (185 bome / ha)
 (Let wel: Hierdie is slegs 'n riglyn en behoort vir verskillende gebiede aangepas te word met skeduleringsgereedskap bv. tensiometers, 'probes', verdampingspan en gewasfaktor.)

Orchard maturity	July	August	September
Boord- volwassenheid	Julie	Augustus	September
At planting / met plant	8	11	15
25%	19	28	38
50%	38	57	76
75%	57	85	114
100%	76	114	151
Tensiometer 0-30 cm	Micro: -10 to -30 kPa Drip: -4 to -15 kPa		
Tensiometer 30-60 cm	Micro: -15 to -30 kPa Drip: -10 to -20 kPa		