

Review: Development of Mechanised Coffee Production Systems in Australia

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ABSTRACT

After a gap of 60 years, an Arabica coffee industry has been re-established in Australia. The industry is based on a high degree of mechanisation at all stages of production to compensate for high labour costs. Although the modern industry was pioneered by growers, a significant Government funded R&D effort has had a major impact in the development of efficient mechanised production systems for coffee.

Varieties and agronomic techniques to give high recoverable yield with machine harvesting, in a range of environments have been developed. Methods to concentrate berry maturity for machine harvesting have been refined.

Developments in machine harvesting have included the development of a second generation coffee harvester, and harvest management systems, which maximise yields of prime cherry from machine harvesting.

Innovative wet processing technology has been developed to allow the production of a consistent, high quality line of coffee from machine harvested feed-stock, whilst maximising the value of “off grades” (immature and over-mature).

For successful development of a mechanical industry a combination of site selection and management to achieve high yields, flower and crop maturity synchronisation, improved harvester selectivity and equipment to handle machine harvested coffee are all important. No one component is the complete answer in itself.

Aspects of technology developed would have application to traditional producers coping with increasing labour costs.