

## VERTICAL INTEGRATION FROM PADDOCK TO PLATE: ADZUKI BEANS

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Market-driven research in agriculture involves aligning extension, agronomic, economic and food science studies with the needs of end - users. Researchers provide options and opportunities and in turn are fed back specifications from processors and consumers for intake standards, raw product requirements and desired end product characteristics.

### MATERIALS AND METHODS

Adzuki (or azuki) beans are consumed in Japan sweetened with sugar either as filler pastes in rice or wheat cakes, or as desserts. Preliminary market research identified Japan as a major importer which is prepared to pay a premium for quality. An outcome of GRDC/RIRDC 1993 national workshop on new summer legumes (2) was a proposal for vertically integrated research to fast track development of a fledgling adzuki bean industry in Australia to secure a new market opportunity in Japan. A vertically integrated paddock to plate strategy involves:

- Extension:- advisory, educational and quality assurance strategies:
- agronomic research with nation-wide yield trials and management trials at specific sites plus entomology and nitrogen fixation studies;
- food research to identify which varieties and production regions are most suitable for high processing quality, and to stimulate interest in value adding by Australian processors;
- economic research to analyse economic prospects by cropping region to assess profitability and to assess both production risks and market risks associated with a volatile world price;
- market analysis to survey production and trade trends worldwide, to identify requirements for principal and for niche markets, to facilitate interest in value adding in Australia, to assist with business contacts and to formulate a market entry strategy;

### RESULTS AND DISCUSSION

The project aims to achieve 5,000 tonnes annual export of high quality beans over a three year period, from July 1994, from a base of 500-1,000 tonnes annually. This will be produced in regions in which adzuki beans are both competitive with other crops and meet quality requirements of processors and consumers in the export market. Market feedback influences choice of variety and crop management standards to meet quality requirements. Total quality management is required at all steps in the chain from producer to consumer, and this will be achieved with simultaneous, fast tracked research and education strategies to comprehensively address industry needs.

### REFERENCES

1. Redden, R. 1996. Market driven research. A case study - culinary beans. Agric. Sci. (in print).
2. Redden R. and Fletcher, R. 1993. National Workshop for New Summer Grain Legumes. RIRDC/GRDC.