



Australian Government  
Rural Industries Research and  
Development Corporation

# Critical Success Factors for New Rural Industries



**RIRDC** Innovation for rural Australia





**Australian Government**  

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Development Corporation**

# **Critical Success Factors for New Rural Industries**

March 2009

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*Publication No. 09/002*

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**RIRDC Contact Details**

Rural Industries Research and Development Corporation  
Level 2, 15 National Circuit  
BARTON ACT 2600  
PO Box 4776  
KINGSTON ACT 2604

Phone: 02 6271 4100  
Fax: 02 6271 4199  
Email: [rirdc@rirdc.gov.au](mailto:rirdc@rirdc.gov.au)  
Web: <http://www.rirdc.gov.au>

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# Foreword

New industries provide vital stimulus to the Australian rural sector. They present opportunities for farmers seeking to diversify their activities, for regions looking for new sources of income and employment, and for agribusiness investors. As the Australian agricultural sector tackles issues associated with climate change, water shortages and fluctuating global commodity prices, new industries are important contributors to economic growth in the sector.

However, many challenges and obstacles face those wanting to develop a new industry into a commercially viable, sustainable operation. The Rural Industries Research and Development Corporation (RIRDC), commissioned this study to summarise and update the existing body of knowledge on the critical factors that need to be addressed in establishing a new rural industry.

This report identifies themes and draws together the key performance issues and critical success factors learned from consultation with a broad range of new industry participants. It presents the findings from research into the critical success factors underpinning viable new rural industries. The report provides a valuable insight for people involved in, or considering involvement in, new and emerging rural industries or enterprises as it draws on the experiences and lessons of those who have travelled down the ‘new industry’ path previously.

This report seeks to define and report the factors leading to success or failure in new rural industries. It presents the findings from meetings, interviews and surveys conducted with a range of current and past participants in new rural industries, and combines these findings with those reported in the literature.

This report is supported by a handbook “Turning a good idea into a profitable venture: A guide to success for new rural industries and enterprises,” which includes case studies and snapshots of a number of RIRDC-supported new industries that illustrate the application of some of the principles described.

This project was funded from RIRDC Core Funds which are provided by the Australian government.

This report, in addition to RIRDC’s diverse range of over 1800 research publications, forms part of our New Rural Industries R&D Portfolio, which aims to provide knowledge for diversification in Australia’s rural industries.

Most of our publications are available for viewing, downloading or purchasing online at our website [www.rirdc.gov.au](http://www.rirdc.gov.au)

**Peter O’Brien**  
Managing Director  
Rural Industries Research and Development Corporation

# Acknowledgments

We sincerely acknowledge and thank the new industry pioneers who shared their time and experiences during this project, and without whose input a better understanding of the lessons to be learnt from new rural industry development would not have been possible. The participants' candid contributions and willingness to express their failures as well as their successes was particularly insightful and appreciated.

The list of participants is at Appendix A2.

RIRDC also acknowledges the valuable inputs of Dr Rob Fletcher and Heather Briggs who assisted in shaping the final report based on interview and survey results from David McKinna *et al.* Pty Ltd.

# Abbreviations

EBIT DA	Earnings before interest and tax depreciation amortised
EBIT	Earnings before interest and tax
IP	Intellectual property
IPO	Initial public offerings
IRR	Internal rate of return
KPI	Key performance indicator
MIS	Managed investment scheme
NPV	Net present value
QA	Quality assurance
R&D	Research and development
RIRDC	Rural Industries Research and Development Corporation
SME	Small to medium enterprise

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# Executive Summary

## **What the report is about**

This report identifies themes and draws together the key performance issues and critical success factors learned from consultation with a broad range of new industry participants. It presents the findings from research into the critical success factors underpinning viable new rural industries. The report provides a valuable insight for people involved in, or considering involvement in, new and emerging agri-food industries or enterprises as it draws on the experiences and lessons of those who have travelled down the 'new industry' path previously.

This report seeks to define and report the factors leading to success or failure in new rural industries. It presents the findings from meetings, interviews and surveys conducted with a range of current and past participants in new rural industries, and combines these findings with those reported in the literature.

Any analysis of success depends on whether the analysis is conducted at the level of the whole industry, or of the individual enterprise. This report considers both levels.

Criteria for success also vary with the motivation of particular industry participants. For example, a lifestyle farmer may be satisfied with the goal of breaking even financially in the medium term, whereas a commercial operator or professional investor will require a higher return on their investment.

The criteria to be applied in a particular case will also depend on the stage of that industry's development. Four stages (embryonic, sub-commercial, commercial and professional investor stages) have been identified for most industries; in addition some industries pass through a speculative stage before reaching the commercial one.

## **Target audience**

The report contains useful information for anyone involved in, or considering involvement in, new rural industries or enterprises, including government policymakers, research providers, agricultural advisers, primary producers, investors, entrepreneurs, rural service suppliers, processors, marketers, wholesalers, retailers and members of industry-based associations.

## **Background**

New industries provide vital stimulus to the Australian rural sector. They present opportunities for farmers seeking to diversify their activities, for regions looking for new sources of income and employment, and for agribusiness investors. As the Australian agricultural sector tackles issues associated with climate change, water shortages and fluctuating global commodity prices, new industries are important contributors to economic growth in the sector.

However, many challenges and obstacles face those wanting to develop a new industry into a commercially viable, sustainable operation. The Rural Industries Research and Development Corporation (RIRDC), in its role as a facilitator of commercialisation of new rural industries in this country, commissioned this study to summarise and update the existing body of knowledge on the critical factors that need to be addressed in establishing a new rural industry.

## **Objectives**

This study aimed to identify the critical success factors for new rural industries, and to communicate these factors to industry participants.

## **Methods used**

A random group of stakeholders from the RIRDC database were invited to participate in this research. Each participant had either current or previous experience in new rural industry development. The

group included commercial producers, lifestyle farmers, consultants, passive investors, researchers and RIRDC staff. Their experiences and views were documented through a series of focus group meetings, interviews and a brief email survey of a subset of the group.

Results from the focus groups, interviews and survey were interpreted within the context of a review of the available literature on factors leading to success and failure in new rural industries. In addition, the consultants drew on their own knowledge and experience gained through a long history of involvement with new rural industries.

### **Key findings**

This study and the published literature both draw on experiences from a diverse range of new industries. Nevertheless there was a high degree of commonality in the factors associated with success or failure in new rural industries.

This study confirmed seven generic success factors for new rural industries:

- a primary focus on customers and marketing
- a viable source of competitive advantage in the target market
- industry-wide capability to consistently deliver a product of the required quality
- a well functioning supply chain
- effective leadership and strategic planning across the industry
- business proficiency and access to sufficient capital
- well-planned, well-managed, adequately funded research and development (R&D) for the new industry.

In addition, individual enterprises need to recognise the benefits of information sharing and cooperation with others to achieve critical mass and the associated economies of scale. They need to be realistic about the difficulties of implementing efficient production systems, quality codes and all other aspects of commercialising new industry products, and the costs and time involved in solving these problems.

The report also discusses the role of new rural industry associations and issues associated with their structure, management and funding.

The findings are summarised in an easy-to-read guide to success in new rural industries that has been produced to accompany this report.

# 1. Introduction

## 1.1 Background to this study

New rural industries span diverse enterprises from speciality foods to fine fleeces and new export market commodities.

### **What is a new rural industry?**

A **new rural industry** has been defined as any agriculturally based commercial opportunity or product that is new to Australia, new to commercial production, new to producers (though not necessarily to consumers) or for which a new use has been found (Collins & Lim-Comacho 2005). The term **industry** includes all aspects of commercial production, processing and marketing of a particular product (Wood et al. 1994).

Every major Australian rural industry has at one time been a new industry. Australia's major rural industries were initially imported from elsewhere and their technology adapted to the new conditions. Generally they already had a recognised product in the marketplace, although over time some of these industries have developed and introduced new products to the market.

Some indigenous species have become quite significant Australian rural industries, These include macadamia nuts, kangaroo, wildflower species and eucalyptus and tea tree oil.

To become a new industry, a species (whether indigenous or from elsewhere) must first be domesticated, consumers must be found for their products, and markets must be developed. This process is slow and difficult (Fletcher 2002).

A major business focus for the Rural Industries Research and Development Corporation (RIRDC) is to invest in new rural industries with a view to improving the viability of the rural sector through diversification. New industries provide a vital stimulus to the Australian agricultural sector because of their potential contributions to future sustainable economic growth and diversification.

However, because of their pioneering nature they face many challenges and obstacles. Some new rural industries successfully overcome the developmental difficulties and grow to become sustainable, major industries; others remain viable niche industries; and yet others fail completely.

Since its establishment in 1990, RIRDC has seen many mistakes repeated across industries, and recognised some common themes. It commissioned this study to identify the common problems encountered by new rural industries and to offer solutions to address them.

### **What is success in a new industry context?**

The definition of success and how it should be measured in a new industry context is complex and highly subjective.

In defining success in new crop industries, Wood et al. (1994) used the current value of production and its simple average rate of growth as a measure of the industry's level of success. They also considered the following as possible measures of success:

- Value created by the industry
- Domestic market share
- Employment generated
- Contribution to sustainability and profitability
- Import substitution or export earnings

- Stability of the industry
- Rate of return on research investment
- Social impact
- Environmental impact.

Established industries and businesses typically measure their success on economic grounds, using key performance indicators such as internal rate of return (IRR) and payback period for new enterprises.

In recent years, some organisations have broadened their measures of success to include social and environmental factors using the 'Triple Bottom Line' and 'Balanced Scorecard' methods. These organisations consider environmental sustainability and social equity as well as economic performance in assessing their performance.

In conducting this study new industry participants were asked about their motivations and how they viewed success.

## **1.2 Objectives**

This study aimed to identify and report the factors that lead to success or failure of new rural industries, based on the experiences of industry participants and the results of previously published studies of critical success factors for new industries.

## 2. Methodology

### 2.1 Desk research

In liaison with RIRDC, previously published work on success and failure in new rural industries was reviewed, including:

- RIRDC reports
- Other food industry reports
- Reports from other agricultural industries in Australia
- The academic and business literature on this issue
- This consultancy's own previous work on the subject.

### 2.2 Field research

Information was obtained from a series of focus group meetings, interviews and email surveys of current and past participants in new rural industries. Those invited to participate were selected from the RIRDC new industry database.

Focus groups were conducted in Melbourne, Brisbane, Canberra, Coolangatta and Hobart. Participants included producers from new rural industries, representatives from state government departments and regional and industry development groups, representatives of new industry supply chains such as processors, wholesale traders and retailers, and representatives from major investment companies, including Timbercorp, Great Southern and Advisor Edge.

Information was sought on the participants' motivations for involvement in a new industry as well as their views on what factors were the major contributors to success or failure. They were asked about their motivation because this will affect their view of what constitutes success for them. The stage of development of their particular industry was also recognised as a factor in determining the appropriate measure of success.

The focus group and interview data were supplemented with information from a short email survey sent to 57 producers and industry representatives. The survey asked two questions:

- 1 Based on your experience with new industries/enterprises, which do you believe are the five critical success factors for new rural industry development; that is, what is the thing that you need to have in place or address in establishing a new industry/enterprise?
- 2 Based on your experience, what are the top five lessons you have learnt that you would share with others in starting up a new industry/enterprise?

### 2.3 Analysis

The email survey responses were collated and analysed in two ways:

- 1 according to the frequency of occurrence of each factor mentioned; and
- 2 using a weighted index, in which each factor listed as 1 (assumed to be considered most important by the respondent) was weighted 5, down to a weighting of 1 for each factor listed in the 5<sup>th</sup> position.

The data from the focus groups and interviews were analysed qualitatively and grouped around common themes. These results and the results from the survey responses were then compared with the critical success factors identified in the literature. In addition, an analytical framework was developed as a platform to identify and analyse the key factors at each stage of new rural industry development.

# 3. Summary of Earlier Research

## 3.1 Previously reported critical success factors for new industries

A large number of factors have been reported by those seeking to define what drives success in new rural industries. For example, Fletcher (1998a) lists 160 factors that need to be considered in a marketing context.

However, in examining the previous published work, six broad themes regularly recur:

- Markets
- Participant/people issues (which includes issues relating to all the people involved in the new industry – producers, investors, industry association leaders, supply chain members, etc. – and the relationships between them)
- Strategy
- Availability of funds and appropriate budgeting
- Production
- Research and development (R&D)

These headings are used here to group the various critical success factors reported in the literature.

In one of RIRDC's earliest reports on the subject, Wood et al. (1994) comprehensively reviewed previous research on success factors in new rural industries. Table 3.1 lists the factors they identified.

Table 3.1 Critical success factors identified by Wood et al. (1994)

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*Market-related factors*

- Understanding the nature of the market, such as current supply and demand, price and trade fluctuations and transportability of the product (Wood et al. 1974; Jolliff & Snapp 1988)

*Participant-related factors*

- The presence of industry champions (Jolliff & Snapp 1988; Waters 1988)
- The level of commitment and interest amongst industry participants (Waters 1988)
- The involvement of the private sector early in industry development (Wood 1982; Corley 1989)

*Strategy-related factors*

- The management capabilities of the participants (for example, Huthwaite 1988 claimed that many previous champions of new rural industries had been ‘notoriously poor managers’)
- The establishment of crucial milestones in the development stages and their timing, such as the time from ‘first investment to first return’ (Sloane 1984; Huthwaite 1988; Corley 1989)
- The level of uncertainty (risk) involved and its principal sources (Sloane 1984).
- The presence and nature of political support or acceptability (Wood et al. 1974; Waters 1988)
- The identification of entry barriers to new rural industries (Jolliff & Snapp 1988)
- The ease with which the new industry can be integrated with current participant activities (Wood et al. 1974; Olson 1987)

*Budget-related factors*

- The availability of funding (de Kantzow, 1984; Waters, 1988)
- Appropriate budgeting including identification of the source(s) of industry income, the level of profitability (including estimates of yield, costs and market prices), its likely variance and the profitability of alternatives (Wood et al. 1974; Sloane 1984; Olson 1987; Corley 1989)

*Production-related factors*

- The location of a suitable site for the new industry (Olson 1987)
- The availability of technological change for improved productivity, ‘especially in terms of labour and capital’ and its transferability (Wood et al. 1974; de Kantzow 1984; Sloane 1984; Robinson 1987)
- Access to genetically improved germplasm (Rubis 1989)

*Research and development*

- A multidisciplinary approach to R&D (Wood 1982; Waters 1988; Jolliff & Snapp 1988; Rubis 1989; Wallis et al. 1989; Zulauf & Rask 1989)
-

Table 3.2 Critical success factors identified by McKinna et al. (1999)

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Markets

A market-driven product specification and quality assurance regime  
 An effective market development program  
 A brand-orientated marketing and promotional strategy

Participants

An efficient processing and value-adding capability  
 Creation and involvement in an effective industry association

Strategy

An effective trading and distribution system  
 An ability to manage the transition from the speculative to the commercial stage  
 An ability to effectively manage bio-ethical issues

Budgeting

A capability for selling all production at viable prices  
 Access to adequate funding for the commercial stage

Production

An efficient production capability

R&D

Access to adequately funded and managed R&D.

---

Hyde (1998) proposed seven key success factors for new crop industries:

- The adoption of a **market focus** through considerable research into the market; in some new industries branding, the exploitation of seasonal or site advantages, and niche marketing had proven successful (*markets*).
- The existence of a **champion** who can supply the ‘vision, the drive, the energy, the ideas, the commitment and the plan to turn the vision into a reality’ (Hyde 1998); the champion can identify and act upon opportunities, be highly competitive and motivated, take calculated risks, effectively plan and manage the enterprise(s) and remain committed and work hard (*participants*).
- The acceptance of an **operating style** attuned to the nature of such enterprises; the vision must be long-term, the focus must be on supplying the market with what it needs (with quality products) and the approach must be flexible to easily take advantage of opportunities as they arise; opportunities can include value-adding, vertical integration, innovative marketing and trading arrangements and new technology (*participants* and *strategy*).
- The **role of government** in facilitating a favourable economic environment; this may include the provision of information, R&D outcomes and services and representation (*strategy* and *R&D*).
- Available **financial resources** to establish the new industry (start up) and maintain it (operational) until income starts to flow; government incentives and joint ventures have proven useful in some cases but robust financial management is required to evaluate all options (*budgeting*).
- The **location** of the new industry to suit its production and processing requirements and provide access to the markets (*production* and *strategy*).
- Ready access to **technology** which can be transferred and adapted to the new industry; success will depend on the participants mastering the complexity of such technology and being apply to apply it for the benefit of the supply chain (*production*).

In further work in which he examined the operations of 30 Australian ‘champions’ of new rural industries, Hyde (2000) identified six critical success factors:

- Marketing
- The choice of industry
- Business management and planning
- Strategies to value-add farm products
- Location considerations
- Research.

Blade & Slinkard (2002) classified the critical factors for new crop industries in Canada as follows, based on their analyses of reasons for failure:

- **business issues** (limited market intelligence or development, unrealistic expectations amongst participants, insufficient protection for R&D outcomes, and a lack of industry infrastructure);
- **processing issues** (the description of a quality product in terms of appropriate analysis and regulation);
- **policy issues** (a lack of political support, compared with the support for conventional crops);
- **production issues** (inappropriate germplasm and inexperience with agronomic and environmental responses;) and
- **R&D issues** (a lack of research coordination, continuity and funding).

In its *New animal products R&D plan 2006–2009*, RIRDC (nd) recognised the following factors as important determinants of success or failure in new animal industries:

- initial stock costs due to limited supply,
- suitability of the climatic environment,
- location of processing facilities,
- skills of the industry participants, and
- access to information.

In light of these factors, the Corporation has structured its future New Animal Products R&D around three areas of interest:

- 1 Developing new opportunities
- 2 Stimulating partnerships and adoption
- 3 Competitiveness, capability and capacity.

### **3.2 Market-related issues**

If a new rural industry is to become a profitable business, most recent authors consider the commercial prospects of the product in the **market** to be a major factor in determining the new industry's success.

The slow manner in which new rural industries develop as germplasm is built up and experience gained, means that clear market predictions are difficult to make.

Treadwell (1984) recommended an initial qualitative approach to the estimation of market growth and the costs of marketing and their flexibility. A qualitative approach has been adopted subsequently by many analysts, often through the Strengths, Weaknesses, Opportunities and Threats (SWOT)

approach. To be effective, it requires consideration of a wide range of factors that may otherwise be overlooked. For example, the Do Our Own Marketing Short Course requires initial consideration of more than 160 factors (Fletcher 1998a).

Fletcher (1998a) modified the strategic marketing management approach of Aaker (1995) to focus on the following key success factors for new crop products:

- **customers** (their needs),
- **competitors** (their capabilities),
- **market analysis** (the nature of the market, its viability and longevity)
- **environment** (the economic forces outside the individual enterprise),
- **performance** (the likely viability of the enterprise), and
- **strategic options** (the nature of the enterprise, its flexibility and competitive advantage).

Bolen (1993) reviewed the factors that would warrant investment in a new crop industry by a seed company (in this case, Pioneer Hi-Bred International, Inc.):

- There must be intellectual property protection (such as patents, hybrids or vertical integration) to protect the investment.
- There must be synergy with existing business activities (to support and build on current activities, thus excluding truly different new industries, which may have a long lead time).
- Commercial potential must be proven (since it is being compared with large numbers of other investment alternatives).
- There must be market potential (a ‘large volume potential with very good profit margin’).
- The potential return must be 20% (return on equity).

Walker (1993) described the kind of opportunity analysis a manufacturer may do to determine whether a new industry product was viable:

- A market analysis would identify whether the new product would compete on price, value or service.
- The ease of making the product and the cost of the technology required would be compared with the probability of a return.
- A financial analysis would then estimate the cost of sales and business expenses and the revenue from sales; such an analysis would focus upon the R&D required.

Fletcher (1998b) proposed 13 steps in the process of commercialising a new crop industry (Table 3.3). Many of these steps are about establishing that there is a viable market for the right product.

Table 3.3: Steps in commercialising a new crop industry (Fletcher 1998b)

- 1 The proposal of the new crop by those willing to commit themselves financially to such development
- 2 Acknowledgment that new crops research is inherently a high risk venture
- 3 Recognition of the need to protect intellectual property rights
- 4 Assessment of the marketing potential of the new crop using all published criteria, identifying those criteria for which no information is available
- 5 A theoretical assessment of the production potential of the new crop using all published criteria, identifying those criteria for which no information is available
- 6 Establishment of an integrated development group comprising producers, processors, distribution and marketing teams, with research providers initially in a facilitation role only
- 7 Agreement within the group of resource requirements, expected outcomes, action plans to achieve them, and distribution of any profits
- 8 Establishment of a process of project monitoring to identify and resolve problems quickly and efficiently
- 9 Establishment of economic benchmarks and an agreement to abandon the project once these have not been met
- 10 Establishment of a system of review to place on record the circumstances under which the project was successful or failed
- 11 Trial production for trial marketing
- 12 Trial production for trial processing and packaging
- 13 Experimental production.

Fletcher & Collins (2004a, 2004b) explained the significance of each of these steps in the process of new crop commercialisation in a RIRDC handbook aimed at assisting new crop industry participants.

Salvin et al. (2004) identified supply chain management, the need for industry collaboration, the requirement for better information for better decision making, and the need for strategic marketing management, economic modelling and several personal attributes as critical for success in new crop industries.

Collins et al. (2005) asserted that the success of enterprises, supply chains and industries are all interdependent. They viewed supply chain management as a source of competitive advantage, and concluded that the firms that adopt best practice supply chain management initiatives are more likely to succeed and less likely to have their chain copied by competitors.

### 3.3 Lessons from other industries

While the focus of research by Anderson (2000) was the well-established Australian wine industry, she identified six important lessons from that industry's experiences which can also be applied to other small rural industries:

- 1 Identify new **market** opportunities
- 2 Develop a long-run **vision** for sustaining the initial growth spurt (*strategy*)
- 3 Attract the necessary **resources** (*budgeting*)
- 4 Invest in appropriate **research** to develop new technologies or adapt imported technologies so as to enhance the cost-competitiveness of producers
- 5 Invest in product differentiation via **promotion**, so as to enhance consumer demand (*markets*)
- 6 Establish good **relationships** between the grower and the processor and/or marketer (*participants*).

While not focused on new rural industries, work recently published by the Australian Stock Exchange and the Australian Business Foundation sought to identify success factors in Australian industries

(Ramsay & Bladier 2005). The research considered the cases of the Australian mining and wine industries which have both experienced their share of 'boom and bust'.

Based on the experiences of these industries, the authors narrowed a broad range of critical success factors into eleven critical levers which they argued can define the success or failure of a particular industry (Table 3.4).

Table 3.4: Critical levers for Australian industries (Ramsay & Baldier 2005)

- 
- 1 **Cyclical**  
Understanding and appreciating cyclical is an important driver of success. As is noted in this research, 'The decline/crisis part of the cycle must be seen as the time for acquisition, conservation of capital, "tidying up" the excesses of the past boom and generally preparing for the up-swing when it comes. The growth leg is for capital-raising, new ventures and expansion.'
  - 2 **Inherent Australian characteristics**  
The industry is well suited to **Australian conditions, skills and culture**.
  - 3 **Clustering, cooperation** and integration  
For those seeking to sustain a failing new industry, the completion of cluster structures (i.e. filling in missing elements or re-invigorating defunct ones) can be a key trigger for injecting new life into the industry. Conversely, missing parts of the structure can be fatal if not replaced.
  - 4 **Market opportunities**  
Identification of highly specific market opportunities can help to sustain an industry during a downturn.
  - 5 **Entrepreneurial champions**  
Sustaining an industry beyond its growth phase can be difficult without the vision and energy of industry champions.
  - 6 **A seminal/iconic document**  
A **visionary strategic document** can be effective in resolving debilitating obstacles in an industry and can serve to unite disparate and sometimes hostile stakeholders to combat a common problem.
  - 7 **Collaboration and competition**  
A new industry is less likely to survive without an effective collaboration structure to complement the accepted high level of competition.
  - 8 **Networks**  
Effective networks drive growth.
  - 9 **Equity investors and financial infrastructure**  
Many small to medium enterprises (SMEs) attempt initial public offerings (IPOs) prematurely, before they are robust enough to withstand the pressures of public funding; however, the public equity investor often provides the cheapest (and most controllable) source of funds.
  - 10 **Professional industry associations**  
These can provide a potent vehicle for the fostering and sustaining of new industries.
  - 11 **Know how and innovation**  
The existence of a well thought out **strategy** to ensure and fund innovation was considered the key to sustaining a new industry.

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There are many elements in common with the success factors reported here for new rural industries. The importance of collaboration, champions, networks, and professional industry associations is noteworthy.

However, in the case of new crop industries Fletcher (1998a) observed that their development is often quite different from that of manufacturing and secondary industries, because of the strategic and budgetary conditions that prevail:

- Innovative manufactured products have usually been created by large companies with large resources whereas new crop products have usually been developed by relatively small companies with limited resources; there have been instances of large companies supporting new crop products, but only after their viability had been demonstrated by others;
- innovative manufactured products have often been developed from the industry's existing range of products whereas new crop products have often represented a major change from those products previously derived from a region in terms of crop species, production requirements, processing needs and/or the consumer needs targeted;
- innovative manufactured products have usually represented only a small proportion of the firm's overall investment whereas new crop products have often represented a very large proportion of the participants' activity to the point where they can overwhelm the business/es entirely; and
- innovative manufactured products have been launched onto the market on a large scale with substantial promotional support, whereas new crop products have taken years to achieve substantial production levels and have often depended on publicity provided by others for their promotion. (Fletcher 1998a)

### 3.4 Does luck play a part?

Wood et al. (1994) estimated the 1992 gross dollar value and rate of growth for 35 new crop industries and analysed a wide range of factors reported by the new industry participants as having a positive or negative impact on their industry. The positive influences reported were mainly **marketing** factors such as the identification of market opportunities, the definition of the product in terms of the consumer's needs (that is, its quality), and the presence of competition. R&D, especially that focused on production and the availability of appropriate technology (usually from overseas), was also a positive influence.

However, Wood et al. (1994) concluded that:

In contrast to many previous authors commenting on success factors, the study showed that a large number of factors can contribute to or constrain the development of new [crop] industries. Furthermore, the most critical factors were found to differ from industry to industry, but generally production and marketing issues were the most critical to [crop] industry growth and development.

Hyde (1998), drawing on his long experience with RIRDC and its predecessors, agreed with Wood et al. (1994) that there was, in his opinion, no consensus on the key success factors for new rural industries. Hyde recognised that many new industry participants felt that luck played a significant role in their success or failure. Individual factors that exerted a major influence were difficult to identify.

Fletcher (2002) has explained that the process of new crop product commercialisation is likely to be chaotic, because:

- The system is unstable and likely to change significantly at any moment
- The many factors which can influence the outcome are also changing all the time
- All these factors interact with one another (often in a complex manner)
- Most of these complex interactions are non-linear and/or discontinuous or intermittent
- The system can be highly responsive to a very small change in one factor (such as the outcome of a random meeting between two interested people)
- There are feedback and regulatory mechanisms operating, whereby past behaviour can influence future behaviour, often in a positive sense (positive feedback).
- A chaotic system cannot be manipulated nor controlled or its outcome predicted; alternatively, a subtle change in a single factor may exert a very large (yet unpredictable) influence on the outcome. (Fletcher 2002)

In a similar manner, predicting the weather, the occurrence of earthquakes and the performance of the stock market and/or the economy is also difficult, since these are also chaotic systems.

### **3.5 New industry stages of development**

New and emerging industries often progress in a predictable development pattern. The pattern of progress of a new industry's is relevant in any discussion of critical success factors because these factors can vary with each stage of the industry's development.

McKinna et al. (1999) identified four critical stages for new rural development: an embryonic stage; a speculative stage; the commercial stage; and the mature industry stage.

Figure 3.1 represents the McKinna's current thinking and shows five possible stages of development: the embryonic stage; the sub-commercial stage; a possible speculative stage; the commercial stage; and a possible professional investor stage.

The first alteration recognises that the speculative stage doesn't always occur; some industries manage to avoid it, mainly because external entrepreneurs do not become involved. The second change is the introduction of the professional investor stage, reflecting the increasing involvement of professional investors in agriculture, largely through managed investment schemes (MISs).

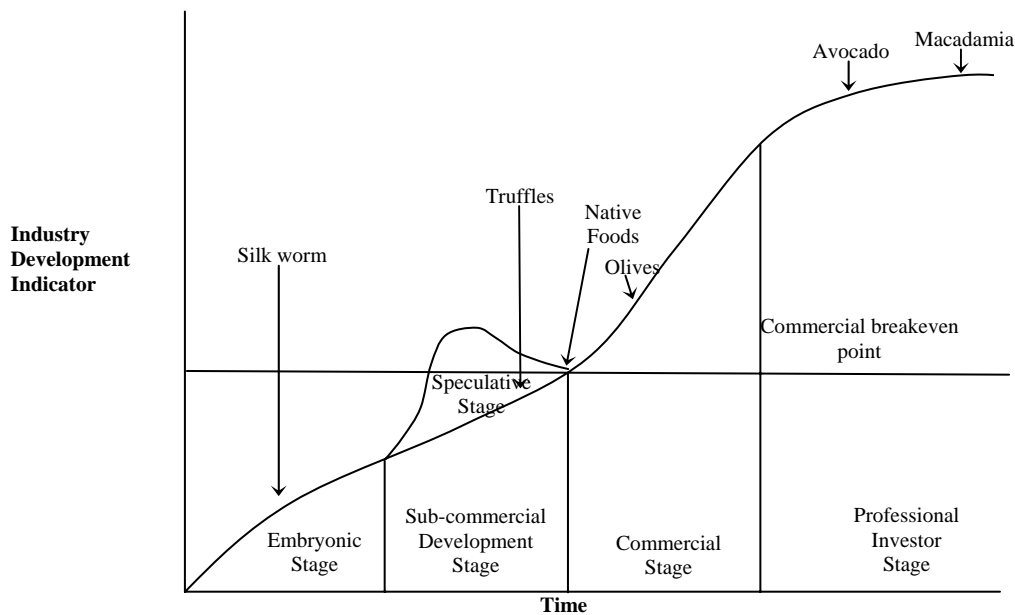
The criterion for measuring new industry growth, the Industry Development Indicator, could be:

- dollar turnover of the industry,
- the number of participants,
- the level of development in terms of the science and production systems,
- the level of sophistication in terms of marketing. and/or
- the enterprise and industry profitability.

Figure 3.1 includes examples of industries that have been supported at varying stages of their development through R&D sponsored by RIRDC.

The characteristics of each developmental stage are outlined below.

Figure 3.1: Characteristics of new industry growth over time



### The embryonic stage of new rural industry development

This stage is the very genesis of an industry, where one or a few pioneers believe that there is a potentially viable commercial opportunity. The starting point for the new industry varies; often it can emerge from a special interest or hobby group. Such activity can also be initiated by a participant's experience of the crop overseas.

For example, the crop chickpea was introduced to Australia by Dr Albert Pugsley after a visit to India in 1971 (Brinsmead et al., 1994); Rockley Deer Park was established in 1989 by Rod Maclure with red deer breeding stock imported from New Zealand (Mackay 1998).

This point in industry development is experimental. Little is known about the science or management of the production systems, or even whether the product can be produced successfully in Australian climatic conditions. Unfortunately, there is usually more emphasis on production than on the product at this stage. Often the participants start to produce product that nobody needs or wants.

Typically, at this point in time the industry has a very low profile and is confined to a number of enthusiasts who are gathering information and doing their own individual research.

These enthusiasts often form the genesis of an industry association with a focus on information sharing. Some participants believe that their information should be treated as commercial-in-confidence. Information is sometimes strenuously protected to the extent that partners in the potential supply chain are unwilling to commit because so little information is known or made available.

### The sub-commercial stage of new rural industry development

The sub-commercial stage arrives once the new industry starts to develop momentum because more people become interested. Many industries in the RIRDC new industry portfolio are still at the sub-commercial development stage.

The main focus in the sub-commercial stage is on gaining a greater understanding of the production systems and the underlying science. There is generally a large investment and heavy focus on R&D at this stage. At this stage, it is also very important to pay attention to what the consumer feels about the product, whether they wish to buy it and at what price.

This is called the sub-commercial stage, because even though at this point the enterprises are usually generating some income, the level of return is typically below the break-even level.

Industry associations develop at the sub-commercial stage and become more active.

### **The speculative stage of new rural industry development**

The speculative stage does not occur in all industries, but when it does it can be quite damaging if not fatal. The speculative stage occurs when interest in the industry overheats, largely due to promoters who come into the industry and aggressively market the opportunities through various investment schemes. Some industries struggle to get past the speculative stage.

An extreme example of the extent to which speculation can veer out of control is in the classic case study known as 'Tulipomania' which occurred in 18<sup>th</sup> century Holland. Prices of tulip bulbs were driven to extremes by speculative fancy (e.g. a single bulb sold for the price of a house), then crashed with devastating consequences on the local economy.

A good example of a new Australian industry that suffered as a result of the speculative stage is the ostrich industry. The prospects of this industry were talked up to the point where people were paying inflated prices for breeding birds to a level from which a realistic return could never be recovered. The rapidly increasing price then further fuelled the speculative stage and it blew out of control.

Several crop species have also suffered at some time the damaging effects of speculation, including jojoba, tea tree, lemon myrtle, Jerusalem artichoke, Nashi pears and avocado. Fortunately, several of these species have now recovered from this poor publicity and established viable new and often expanding industries, sometimes on a much smaller scale than was originally speculated upon.

The speculative stage is dangerous because it inflates expectations above any realistically achievable levels. Many people get their fingers burnt, and it is difficult to recover reputations. Both the investors and the image of the new agricultural industry suffer.

At one stage recently it appeared that the Australian olive industry was at risk of becoming speculative. However, it seems to have weathered this by focused market development activity and the involvement of large, professionally managed enterprises.

### **The commercial stage**

At the commercial stage, the industry is developed to the point where the better operators are starting to generate profits. It does not follow that these operators are necessarily the same people who pioneered the industry at the embryonic stage.

By this time the industry is starting to attract investment from serious commercial players and production is beginning to build. Supply chains are now starting to be put in place and strong industry associations are usually formed.

At the commercial stage, the main operators tend to be individual farmers or producers. Often these are family farms that are seeking an avenue for diversification away from their traditional farming enterprise. Alternatively they can be 'tree-changers', i.e. professionals moving from the city to begin a new life in a rural area.

Experience has revealed that commercial returns usually take much longer than was initially anticipated. For example, Freshzest (a hydroponic herb-producing company in Victoria) took twice as long as was initially anticipated to produce a profit (Hayes 1999). Once this was achieved, Hayes (1999) listed what he had learnt:

- New industries have few examples to copy
- The influence of the weather and overhead costs are usually underestimated in new industries
- Expected yields and quality from intensively managed trials should not be extrapolated directly into commercial production
- Small variations in staff productivity can result in very large effects on the bottom line
- It takes time to establish a reputation in the marketplace as a reliable supplier of quality product
- The price/quality relationship is often difficult to establish in the minds of many of the intermediaries in the supply chain.

### **The professional investor stage**

At the professional investor stage, the industry becomes of interest to non-active investors via managed investment schemes, venture capital projects or private investors.

For example, the Gourmet Garden range of fresh herb products has benefited from the support of ICM Agribusiness, one of the largest privately owned agribusiness companies in Australia. The company was able to take advantage of large-scale herb production in the Callide Valley and Bundaberg in Queensland and Balmoral in western Victoria, since these sites had well credentialed quality assurance systems in place.

At the same time, the cold capture process for preserving fresh chopped herbs and spices under refrigeration became available. This enabled the product to be packed in tubes without cooking or drying, thus preserving the flavour and any nutritional value of the product.

Professional investors generally operate at 'arms-length' and don't get involved in the day-to-day business. Some may not see the product which is being traded. The motivation for investment varies, but is typically a combination of either long-term capital gains, steady returns, or in some instances the investor seeks tax relief or tax minimisation. In order to do so, the industry promoters must demonstrate that they can pass proven investment criteria that are closely scrutinised by market authorities.

Examples of new industries in this stage are olives, almonds, avocados and macadamias. Not all new industries reach this stage.

## 4. Measures of Success

### 4.1 Success measures for individual operators

Success in new industries depends on the goals of the participants.

Focus group and interview data from this study showed that the motivations driving new industry participants are complex and far wider than pure economics. Some new industry entrants have only a secondary interest in making money. Their agenda is far more holistic, with lifestyle and other considerations often high on the list. Traditional financial measures are therefore not relevant to every new industry participant.

This study has confirmed three key groups of participants in new industries:

- Lifestyle farmers, most with small landholdings
- Participants in commercial enterprises
- Professional investors

Between the lifestyle farmers and the participants in commercial enterprises is a fourth group of organisations or individuals whose objective is only partly commercial. They may derive their main income from a non-agricultural occupation or industry, but still expect a reasonable return on their investment (of money and time) in the new industry in the medium to longer term. This subgroup usually operates the new industry business as a supplement to other income and often has no intention of building it to anything more. In the context of this report these participants are classified as commercial operators because profit is still their primary motivation.

#### Lifestyle farmers

This group enters a new industry for lifestyle reasons. Some are retirees, others are weekend or part-time farmers, work-from-home mothers, etc. They usually have a primary business or safety-net income that enables them to pursue their interest in a semi-professional manner, but without the need to deliver a return on investment.

The key motivation for this group is the enjoyable lifestyle: getting back to basics, getting out into the fresh air, mixing with those who share their passion, and generally enjoying the country life.

Lifestyle farmers are often driven by the challenge of developing a new enterprise. In many cases these are people who have or have had an active professional life in another field of endeavour and seek the country lifestyle as a challenge and an alternative to their city lives.

For this group, success can be measured by their ability to establish some form of enterprise. The focus is on production, and rewards come from generating some form of product to suit their own specifications.

Financial and economic matters are a secondary consideration for this group. They wish to generate a modest income, which may cover some of their expenditure or qualify them as primary producers for tax purposes. But what is often missing from their budgets is the value of the time they and their families have invested in the enterprise.

Their influence may encourage a higher level of professionalism in the developing commercial industry, or may simply create antagonism, especially if other groups perceive attempts by lifestyle farmers to impose their agenda on all participants in the particular new industry.

### **Commercial operators**

Commercial operators are individuals or organisations who enter a new industry for the purpose of making a profit.

They are often commercial primary producers who would measure the success of the new industry against the returns from their established farm enterprise. A key driver for them is achieving an acceptable selling price, relative to their cost of production. They have the advantage of understanding the nature of risk in agricultural enterprises.

Typically, the members of this group accept that a new industry is unlikely to be profitable in the first few years. They take the long-term view but do expect to make a commercial return within a specific period of time (say, within 10 years).

When the industry reaches that stage, their measures of success are based on traditional measures such as total enterprise income or return per hectare.

### **Professional investors**

Professional investors require a return on their investment; however, there are differences in their expectations of financial performance. Some investors place the emphasis on long-term capital gains, whereas others focus on dividends and ongoing returns.

Professional investors include private investors (who take direct equity in a business), venture capitalists (who are often prepared to take a significant risk in anticipation of a higher return), and participants in managed investment schemes and other equity- and tax-driven schemes.

Depending on their purpose, professional investors have very clear financial and economic targets against which they measure performance. These targets are quite specific to the particular investment organisation or company, but tend to take into account the standard financial issues such as:

- return on capital;
- earnings per share;
- capital gains growth; or
- tax-effective returns.

## **4.2 Success measures for whole industries and industry associations**

**Industries** evaluate success differently from the manner in which success is evaluated in an individual enterprise. From the current research, industries appear to measure success using the following criteria:

- *Market*: being able to identify on-going product demand and engage with the end user.
- *Supply chain*: being able to lock in a closed-loop supply chain with links all the way through to the end user, the customer.
- *Price*: being able to sustain an acceptable market selling price that covers costs and produces a return on investment.
- *Industry association*: being able to build a well-managed industry organisation that has credibility with government, represents the views of both individual and organisation members, has industry majority representation, achieves firm consensus, and performs according to a defined code of practice.
- *Production*: Being able to overcome the substantial challenges involved with producing satisfactory yields of a quality product at an acceptable cost.
- *Continuous improvement*: Making steady progress over time.

**Industry associations** tend to measure their success by:

- the number of financial members;
- their finances;
- the effectiveness and functionality of the board or association committee;
- the progress being made in working through marketing and production problems; and/or
- the financial success of the industry.

#### **4.3 Measuring success over the stages of industry development**

The focus group and interview data also showed that industry participants used different measures of success depending on the stage of development of the new industry in which they were or had been involved.

At the **embryonic** stage of development, success is measured by the rather nebulous notion of making progress. This may mean progressively solving the core list of production problems and the general satisfaction generated therein.

Success at the **sub-commercial** stage of development is similarly measured by the progress made in solving the production problems; however, at this stage the emphasis starts to shift more towards financial and commercial considerations. Attention turns to issues such as potential markets, indicative prices and returns, economies of scale, the double challenge of improving yields and meeting market requirements, and the necessity of reducing costs.

For those industries where there is a **speculative** stage, measuring success involves evaluation of the short-term returns that they achieve, the level and speed of off-take, the share uptake, etc. Some speculators enter an industry to get a quick return and have no intention of being a long-term player. This can lead to failure for industry participants with longer-term goals.

Success at the **commercial** stage of development is measured by traditional financial indices. The benchmarks will be those of traditional agriculture, i.e. return per hectare, yield per hectare, total farm income, etc.

At the **professional investor** stage of development, standard investment measures are used, including return on investment, yield, stability/risk, long-term capital gain, net present value, internal rate of return, pay-back, and tax-effective yields.

## 5. Performance Factors and Barriers to Success

The people whose views were sought during this study represented a wide range of new industries at various stages of development, and also covered the full range of industry participants from people who are only partly commercial in their motivation to people from professional investment firms, industry association leaders, marketers and research managers (see Appendix A2). However, despite these differences there was remarkable consistency in the performance factors they identified as most critical to success for a new rural industry in Australia.

Most of the performance factors and constraints to success at the individual enterprise level were easily classified under one of the six major headings already mentioned: market-related issues; people/participant issues; strategy; budgeting/capitalisation issues; production-related issues; and R&D.

This chapter starts with a report of the findings from the email survey on critical success factors and lessons learnt, then presents the findings from the focus group and interview data under the six headings listed above. These sections are subdivided to tease out various aspects of the particular topic.

The study also explored issues relating to industry associations and their organisational and funding structures, and the role of government. These topics are covered at the end of the chapter.

### 5.1 Survey results

Twenty-five responses were received to the email questionnaire. One only answered the first question, as he had no direct experience in starting up a new industry. All other respondents answered both questions, though some listed less than five items under one or other question.

#### **Critical success factors for new rural industry development**

Survey participants were first asked:

‘Based on your experience with new industries/enterprises, which do you believe are the five critical success factors for new rural industry development; that is, what is the thing that you need to have in place or address in establishing a new industry/enterprise?’

A total of 27 critical success factors were identified in the responses. They are shown in Table 5.1, grouped under the six headings listed above.

Strategic planning was the area of most diversity and concern, judged by the range of nominated success factors that were best classified under this heading.

Table 5.1 Critical success factors mentioned by survey respondents

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**Markets**

Critical market assessment and research (i.e. barriers to entry/access to expert advice/market intelligence/industry scoping study)  
Guaranteed market and viable market size/long-term sustainability of the market  
Competitive product  
Market research  
Product integrity and quality standards/Quality assurance  
Marketing/communication

**People issues**

Encouraging a collaborative industry effort/achieving critical mass  
Expert pioneers/entrepreneurship  
People/skilled labour base  
Grit/commitment/dedication/vision/passion

**Strategy**

Strategic business and scenario planning/demonstrated strategy linking production to opportunity/identified demand  
Strong industry association  
Understanding the value chain/supply chain management/vertical alliance system that is transparent  
Long-term view (5–10 years)  
Supply consistency  
Risk management  
Clearly articulated management structure  
Effective partnering with government at all levels  
Protection and management of intellectual property  
Infrastructure  
Make commercial (not emotional) business decisions

**Budgeting/capitalisation**

Financial backing/financial resources/sufficient funding  
Economic modelling and sensitivity analysis

**Production**

Confidence in production system  
Technology and mechanisation  
Agronomics

**R&D**

Establishing research priorities and conducting research through a credible supplier/access to R&D

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Based on the experience of the 25 survey respondents, the most frequently identified critical success factor for new rural industry development was the **availability of funding** (financial backing/financial resources/sufficient funding—see Appendix A1.1).

Other factors frequently identified by the survey participants, in decreasing order of frequency, were:

- Market research
- Strategic planning
- Quality assurance
- Critical mass
- A strong industry association.

When analysed using a weighted index (with a ranking of 1 given a weighting of 5, down to a ranking of 5 with a weighting of 1) the most important critical success factor mentioned by survey respondents was **market research** (critical market assessment and research, i.e. barriers to entry/access to expert advice/market intelligence/industry scoping study) (see Appendix A1.2).

Other factors considered important in terms of the weighted index were, in decreasing order of importance:

- Availability of funding
- Strategic planning
- Market sustainability
- The competitiveness of the product.

### **Lessons learnt from starting up a new industry/enterprise**

The second question in the survey was:

‘Based on your experience, what are the top five lessons you have learnt that you would share with others in starting up a new industry/enterprise?’

Respondents listed a total of 48 lessons learnt from their involvement in a new rural industry. These are shown in Table 5.2, again grouped under the six headings previously identified. The lessons mentioned were wide ranging, reflecting the depth and breadth of experiences and challenges faced by those involved in new rural industries in Australia.

Table 5.2: Lessons learned by survey respondents

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#### **Markets**

Sound marketing plan essential/sales and marketing often poorly defined in new industries/know the market/collective marketing and research programs  
Understanding true competitiveness and comparative advantage  
Know the product/establish that there will be a long-term demand for products  
Build good relationships with customers  
Guarantee supply for set time period  
An industry QA program that starts off with a very simple format and grows with market demands  
Value adding is not the be-all-and-end-all, dangerous if undercapitalised or lack marketing skill  
A common language for the product

#### **People issues**

Develop alliances through active participation in industry groups/effective synergies  
Develop strong relationships with researchers and government bodies/pay for expert advice/adequate research  
Know and use the value chain—do not develop new industries in isolation of chain partners/become 'chain' champion  
Human resources, i.e. attract and retain staff/build a team  
Apply unswerving commitment and patience  
It is impossible to get total agreement  
There is a general lack of commercial understanding (e.g. IP issues)

Give all players the opportunity to participate in decision making if you also want their levy money  
The organisation should represent the whole industry  
Be prepared for disappointment  
Create the best possible information system that feeds into your learning system  
Always be on the lookout for new ways of doing things

### **Strategy**

Develop a business plan and monitor progress/future planning is essential  
It takes longer than you think  
Need to establish risk management plans  
Learn from other successful new industries/no matter how different your new industry is, it's probably similar to most others  
Start small  
Afford the best resources you can, i.e. physical, financial and personal  
Legal and compliance and red tape cannot be underestimated  
Mitigation strategies need to be developed for each business phase  
Hold onto the big picture but pay attention to detail  
Funding for the national organisation and research should be through a mandatory levy system  
Take time to work on the industry rather than in it  
The most significant decisions are usually made in crisis  
Understand if the industry can be entered at different levels of investment  
Be flexible enough to expand  
Consider all advice but in the end make your own decisions  
Remain flexible, realistic and opportunistic  
Industry downturns can lead to a stronger industry  
Don't rely on external support if things go wrong  
Being independent is important—it allows you to make decisions in your best interests  
Focus on plan outcomes, not process  
Develop an exit strategy

### **Budgeting/capitalisation**

Research sources of capital and target investors/have deep pockets  
Assumptions regarding production volumes and prices typically over-inflated in initial business plans  
Understand the investment required to meet market demand  
If the project requires government grants, it probably means it can't survive on its own merits  
Understand a cost/benefit analysis for the proposed level of investment

### **Production**

Technology and mechanisation is essential

### **R&D**

Quality control makes you a better farmer/do thorough research on production issues

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Based on the experiences of the survey respondents, the most frequently identified lesson to be shared with others was the need for a comprehensive **marketing plan** (sound marketing plan essential/sales & marketing often poorly defined in new industries/know the market/collective marketing and research programs—see Appendix 1.3).

Other lessons frequently nominated by the survey participants were (in decreasing order of frequency):

- Availability of funding
- Establishment of a strong industry association (or similar)
- Creation and review of a business plan
- Access to R&D
- Understanding true competitiveness and comparative advantage.

The need for a comprehensive marketing plan was also the most important lesson when responses were analysed using the weighted index approach (Appendix 1.4). Using this approach, other important lessons were (in decreasing order of importance):

- Availability of funding
- Creation and review of a business plan
- Establishment of a strong industry association (or similar)
- Access to R&D.

In the sections that follow, these findings are illuminated through consideration of the richer data obtained from participants in the focus groups and interviews.

## 5.2 Markets and marketing

There was overwhelming consensus amongst the new industry participants in this study that market development and marketing generally are the most important performance factors in new industry development, and that lack of attention to these factors could represent the most serious barrier to success.

Most of the participants in this research had come to their new industry from a production background. They had no experience and little interest or understanding of marketing or supply chain issues when they first began. Almost all of the participants agreed that they greatly underestimated the importance of market dynamics and the essential role of marketing.

Most participants stated that in the early stages of their new industry involvement they were totally preoccupied with sorting through the myriad of production problems. Since they had little volume of product to sell, marketing was a low priority. Most admit that their biggest mistake was producing a product without first determining where it was to be sold, or whether anyone wished to buy it.

The participants recommended that any new industry aspirants first need to determine who their customers might be, what product(s) the customer needs, what other partners are required in the supply chain to provide the desired product to that customer, and how the product should be presented and promoted in the market.

One of the problems frequently mentioned was the erroneous belief that marketing and promotion were the same thing. Marketing is supplying the needs of the customer. It comprises five elements: **Product, Price, Promotion, Placement and Positioning**. Hence, promotion is only effective as marketing if it alerts the potential customer to the features of a product that the customer needs.

Participants in many rural industries are not aware of how products should be positioned in the market, how the value proposition is structured, and how to differentiate the product from competing or substitutable products. For Australian new industry producers, **differentiation** generally needs to be a key part of the marketing strategy as it is difficult to compete on price with a new industry product.

A product that provides value to the customer that is not provided by some other competing or substitute product is a differentiated product. This difference may be improved quality, meaning the product fits the customer's needs more closely, or it may be easier availability, etc.

### Supply chains

Supply chain management to identify and coordinate each link from the producer to the customer is required from the beginning of any new industry development. Participants need a clear understanding of how the product gets to market.

Supply chain partners need a mutual obligation and dependency from the beginning. Several producer participants admitted to being unable to focus any further than their own production problems. They did not have time or energy to consider how the product was to get to market. For unusual new industry products, there often was no route to market at all.

The required supply chain will vary from product to product. In some cases, value-adding or processing is required, whilst in others simply grading and packing is sufficient. The participants in this research were adamant that new industries needed to be linked to markets and consumers from the start. In particular, it is necessary to identify which marketing channels are going to be pursued and then to purposefully and methodically nurture the partnerships at each link of the supply chain.

As well, there is a need to build market signals or mechanisms at every link of the supply chain, to ensure that each partner knows what is happening all the time. The supply chain needs to give accurate and timely signals on pricing, supply and demand conditions, market requirements, quality and so forth.

Structured or 'closed-loop' supply chains are becoming common through the influence of the global supermarket chains. Small industries have found themselves locked out of these supermarket chains and/or out of the major export markets because they are not part of the relevant supply chains.

Production schemes need to be part of a new industry supply chain, since production needs to be focused on achieving the specifications for the product determined by the end-use customer (or by the global supermarket chain on behalf of the customer).

#### **Realistically assessing the market opportunities**

A lesson that became evident in this research was the need to realistically assess whether there is a true market opportunity. Because many of these new industry participants were so passionate about their own product, they naively believed that others would feel the same way and that it would be in demand and would sell.

Many participants admitted that they started with unrealistic expectations of the market size and likely returns. With hindsight they recognised the necessity of undertaking a methodical assessment of the potential market size, its sensitivity to supply and price, and the stability of the price over time. They considered that such investigations should be made in a global context, by evaluating the Australian industry in relation to its global competition. For many industries, the main competition on both domestic and export fronts is likely to come from low-cost third world countries. New rural industries tend to be very labour intensive, especially in the early stages before specialised machinery becomes available. At this stage it is therefore difficult to compete price-wise with product from countries with low-cost labour.

However, Australia may have an advantage if the agricultural product is seasonal.

#### **The need to balance supply and demand**

It is difficult for a new industry to match supply with demand.

If the industry is production focused, product becomes available before the customer becomes aware of its availability and before the customer has had an opportunity to express an opinion on the suitability of the product. Prices cannot be sustained when the market is oversupplied and therefore producers are forced to abandon the new industry, even if the product is eventually found to be marketable.

If demand is encouraged ahead of supply, this needs to be carefully managed. A failure to supply can also damage customer interest and loyalty and cause long-term damage to relationships which is very difficult to repair, particularly in export markets.

The message is that there needs to be some early work done on estimating supply and demand and putting in place programs and management systems to ensure that these juxtapose in a realistic way. There is no advantage in promoting a product when it cannot be supplied to the correct specifications.

### **Market research and intelligence**

The participants in this study expressed the view that good market research and intelligence is important, starting from the consumer and working back along the supply chain.

Most had lacked adequate market intelligence on which to base their own decisions, but this was only evident in hindsight. As well, since market research can be quite expensive and complex, the resources and expertise to conduct this market research are often not readily available in the early stages of industry development.

Market intelligence seeks to answer the following questions in order to focus production on product that the consumer needs:

- Who are the customers, and what are their behaviours and attitudes towards the product? That is, what are the customers' buying criteria, what is the customers' level of knowledge and awareness, what are the customers' preferences in relation to taste, size, packaging, etc., and what are the key selling messages and purchase propositions?
- Where are the market opportunities?
- How is the market segmented, and what are the market parameters for each segment? That is, what are the segment specifications, supply chain and pricing structure, and seasonal timing?
- Which segments offer the best prospects?
- Who are the competitors? That is, what are their positions, what are their areas of competitive advantage, and where is Australia's opportunity relative to them?

Study participants felt it was necessary to have independent market intelligence. They claimed that much of the so-called market intelligence was available from merchants, investors or agents who had a vested interest and were probably not capable or qualified to give good advice.

One of the problems with acquiring market intelligence is the affordability of independent advice. Because new rural industries do not usually have a large budget, or any budget at all for market intelligence, they endeavour to do their own work. The participants admitted that they did not have the skills to do this well. As a result, not only are the data sources poor, but the market intelligence is often lacking in analytical rigour. Hence, the resulting decisions can be poor.

For those participants who could afford to commission market research, they admitted to struggling with defining the market research brief and the managerial process. Most felt that their industry associations also lacked the expertise to complete market research for their new industry product.

The current gap in the market is a low-cost source of market intelligence. In many instances the data already exist, but new industries need to be pointed in the right direction to find the intelligence. Many of the participants had sought assistance with accessing market intelligence from government departments. Most participants were confused about which state or federal government agency to approach. Often, the quality of information sourced in this way depended largely on the calibre of the particular subcontractor responsible.

In hindsight, most new industry participants felt their performance was hampered by their lack of access to good market research and intelligent analysis. Most industries felt that they were 'flying in the dark' and were making very important decisions based on poor market research. As a result they put their initial energy into the wrong product or form of the product. In many cases they then had to retreat and start again.

## **Collective marketing**

Many of the participants in this research felt that their industries had failed because they did not have a collective marketing model; that is, they lacked a process through which they could work together to establish the appropriate market and to supply it.

In some new industries, it was believed that in order to generate any economies of scale and build market power, groups of producers needed to work together under one marketing umbrella. The concept advocated was similar to the cooperative model that has historically been the mainstay of agricultural marketing in Australia.

New industry failure often resulted from individuals trying to do their own thing. Head-to-head competition in the marketplace amongst different new industry enterprises has caused industry disruption and forced prices down.

Many participants struggled to identify a suitable collective marketing model and needed advice on how this could be effectively achieved. Several participants acknowledged that their new industries were exploring new-age cooperative models, involving such tools as licensing and franchising.

Although branding was considered a useful marketing tool, the participants felt there were often too many brands in the marketplace. In a new industry, there needs to be cooperation in order to establish critical mass that will be sufficient to mount the necessary marketing program to build a brand. A proliferation of brands fails to encourage customer loyalty and build the brand franchise that is essential in any brand-based marketing strategy. Industries with fewer brands were considered to be stronger and more successful with their marketing.

Overall, the study participants admitted to having a limited understanding of branding, even though they recognised its importance.

## **Marketing strategy**

Most of the participants acknowledged that their industries did not have a carefully thought-through marketing strategy and were basically running on an ad hoc, day-to-day, deal-by-deal approach to marketing. In hindsight, they felt it would have been wiser to develop a long-term marketing strategy earlier in the process.

The key elements of such a marketing strategy would include:

- Identification of the market segments that currently exist
- Discovery of the best routes for new market/supply chains
- Development of products and their appropriate supply chains to service these markets
- Development of selling and value propositions and points of difference/differentiation
- The funding of a marketing development program.

Some participants observed that those industries that had successful marketing programs usually had natural and instinctive marketers who intuitively knew how to develop and manage a brand and implement a marketing strategy.

## **Value proposition**

A very astute observation made by one of the participants was that there is a need in new industries to develop a total value proposition for the product, not just a proposition based on product identity and price. Buyers do not necessarily always want a new industry product at the lowest possible price.

Australian industries are not able to compete head-to-head on price against competition from overseas countries with significantly lower labour costs. It was considered that there is an opportunity to differentiate the product by offering value to the customer in some other way, for example:

- Taking advantage of **seasonal windows of opportunity** by providing a fresh product when competitors are unable to do so
- Focusing on providing a product that exactly satisfies the **customer's requirements**
- **Developing a relationship** between the members of the supply chain (from producer to customer) that is unique
- **Supporting** the product with service for the customer, such as supplying the product when and where the customer needs it
- **Differentiating** the product so that it can be distinguished from products which may otherwise be competing with it in the marketplace, perhaps by customer-oriented packaging, labelling, etc.
- **Promoting** the product value by explaining these differences to the customer.

For example, the olive industry, which has recently expanded significantly in Australia, has chosen to be competitive against heavily subsidised European products through the differentiation of their product. Rather than offering bulk product, the Australian olive industry has focused on specific products from the crushing process that are perceived by the customer to be more beneficial to them. As well, packaging, labelling and promotion alert the customer to these advantages. The industry has also narrowed down the varieties capable of providing such a product and the areas in which these varieties perform the best.

The lesson is that **carefully understanding the value proposition is the central part of any marketing strategy.**

### **Quality and codes of practice**

The quality of a product is a description of the product.

New industries need to provide products of consistent quality. Since consumers are becoming more discerning and the global supermarkets have established product integrity schemes, it follows that a quality product is one that consistently meets the market-driven standards. The customers' description of their needs in a product defines its quality.

For new industries, superior quality requires uniform industry standards and codes of practice. Substandard operators damage an industry's reputation, domestically and internationally. Hence, a new industry needs to have a stringently controlled, uniform quality and product description system, and a code of practice that industry association members agree to uphold.

Such a code of practice includes standards of industry behaviour and ethics, including packaging, trading, labelling, etc. This consultancy has observed that the better performing, more developed new rural industries give priority to, or have already put in place, quality standards and codes of practice.

### **Good packaging and label design**

For retail/consumer products, as distinct from commodities that go to further processing, one of the key lessons was the need for good packaging and label design. Many participants made the point that those who had good packaging and label design had much better success in the market than those without.

The observation was made that many new industry people do not have an understanding of the need for good packaging and labelling. They do not have an appreciation of the cost of good design and packaging, and do not know where to find appropriate designers or creative agencies. Nor do they have the money to pay for capable graphic artists and designers.

Packaging and labelling is a key element in product differentiation. Many participants admitted that they had not understood this.

### **Promotion**

For many study participants, promotion equates to marketing. However, marketing experts know that promotion will only be effective if it alerts the customer to the availability of the product they need. Marketing has many more elements than this. Marketing focuses on identifying and supplying the needs of the customer, whereas promotion alerts the customer to the availability and location of the needed product.

Participants in this research indicated that promotion was only used by them as a tool for moving surplus product. Once oversupply had occurred, the promotion was usually planned in a hurry, was poorly managed without much thought, and had inadequate resources at its disposal. Hence, promotion was seen as a defence mechanism usually associated with price discounting.

The lesson learnt by many new industry participants was the need to do the promotional work early to alert markets of the pending availability of the product, ahead of production.

Most participants admitted that they did not have the skill to develop effective promotional strategies, and many spoke about their failed efforts. Some participants revealed that their industries had instinctive, natural promoters who were very capable of generating interest in the new industry and some of its products. However, history has shown that these talented promoters, who are often pioneers in these industries, have not necessarily been the major beneficiaries once the industry becomes well established.

Most of the promotional effort in new industries tended to be based around point-of-sale material, tastings and so forth. This was because most industries felt that they lacked the resources to conduct full-scale advertising and public relations campaigns. This is a major difference from the nature of promotion in established secondary industries, as described in Section 3.3.

Few of the participants in this research were investing in brand development activity. This was both because the critical mass to invest in their individual or industry brands was lacking, and because the power of branding was not well understood.

## **5.3 Participant/people issues**

Participants of a new rural industry include everyone in the supply chain from the producer to the eventual customer. This research confirmed that success in new rural industries depends on the way in which these participants interact.

Because of the innovative nature of the activity, new industry participants represent a wide range of personalities, each with different expectations, aspirations, talents and goals. This is both a positive and a negative factor; the critical thing is that the relationships between all these participants must be managed well if the industry is to succeed. There was general agreement that this is best achieved in the context of a well-functioning industry association or other industry body.

### **Managing expectations**

The new industry participants in this research recommended that the expectations of those developing a new industry must be managed. Many people enter new rural industries with unrealistic expectations. Unfortunately, there have been some entering new industries in an attempt to gain windfall profits, perhaps to recover from previous difficulties with an established rural industry. In such cases, they have sometimes been misled by media reports that have appeared to encourage such behaviour.

Entrants to a new rural industry are often poorly informed about:

- The level of complexity in the industry
- The difficulties in establishing relationships that encourage cooperation between partners at each point in the supply chain, especially if some of the members of the supply chain are well-established businesses with a significant bargaining advantage
- The difficulties in solving problems for which there is no precedent, such as the production problems for a new industry product that has previously been produced overseas entirely by manual labour
- The amount of physical and emotional effort required
- The length of time it will take to create the new industry to the point where a marketable product can be delivered to expectant customers
- The funding required to achieve a successful new industry.

Most new entrants grossly underestimated each of these factors; new industry personnel can easily become disillusioned as a result.

The participants in this research were also concerned about the best approach to counteract the unhealthy and potentially fatal speculative element in a new rural industry.

There have been several examples of new industries providing profits for suppliers or entrepreneurs who may appear to be components of the new industry supply chain. For example, suppliers of germplasm or equipment may represent themselves (and initially may also intend to function) as the wholesale marketer of the finished product. Advisers to the new industry may also be retail suppliers of equipment, as well as information.

The speculative appeal of new rural industries is often based on some genuine, easily differentiated characteristic of the new industry. The discoverers of this difference can often benefit from commercialising this trait, but this success will not be transferred to the entire industry supply chain unless the customer demand for the product activates the whole chain.

Uniqueness in a product is always in demand but has no longevity; once such a product becomes popular it will no longer be in demand unless it satisfies the customer's needs in some other way.

Conventional primary producers who are disillusioned with their traditional agricultural industries will often see a new industry as a way to make a quick profit.

### **Honest communication**

The participants in this research saw **industry associations** as having responsibility to give honest and transparent information about their industry. They have an important role in managing the expectations of both the industry participants and the public. They must be straightforward, open and transparent about the realities of the new industry, its prospects and outlook, and the difficulties involved in bringing a product to market.

It was felt that in the past some industries have tried to 'gild the lily' to some extent, rendering the appearance of the industry as more developed than it really was. Such activity may attract members to the association but such members can become disillusioned and disruptive. Open and honest communication is a very important part of building trust and confidence in a new rural industry association.

### **Managing conflicting agendas**

A new rural industry suffers from the multiple expectations of its heterogeneous mix of players, as described above. In particular, lifestyle farmers can easily come into conflict with the commercial investors who are focusing on the operation of a business to generate a profit.

For example, a local grower who manufactures a product himself to earn money for a local community charity will create what is seen by the commercial investor as an artificially low floor in the market price. The charity worker would probably not be placing a monetary value on his own time nor including the full cost of production in the price of the product. This renders it difficult for a commercial producer to charge very much higher prices in the same market.

On the other hand, if the product is selling at these prices this can be a starting point for determining what price the market would support. However, the motives for purchasing the product in such cases may not themselves be commercial motives: buyers could be supporting the charity or the producer, or simply buying a product because it is cheap.

The conflicts between industry participants with different priorities can be very disruptive, especially if one type of participant is present in large numbers in an industry association and can therefore influence its direction, its strategies and its investment policies.

### **Managing enthusiastic amateurs**

Participants in this research offered a number of colourful stories about enthusiastic amateurs. Such participants are extremely optimistic and energetic, but really do not have the knowledge or skill to drive a new rural industry in a commercial direction.

New rural industries need enthusiastic amateurs because their energy, drive and enthusiasm is infectious, but they should not be allowed to attain strategic roles in the industry, even if it is by default. The enthusiastic amateur needs to be professionally managed, along with the industry itself, in the appropriate strategic direction.

Similarly, new rural industries often attract opportunists seeking to make a quick dollar. These people are important to new industries because they tend to be motivated and commercially focused. The opportunist will, however, find it difficult to make any decisions solely for the benefit of the industry.

### **Leadership**

Strong and charismatic leadership of new rural industries and industry associations is essential to their success. The participants in this research made the observation that new industries that have succeeded often appear to have a strong and charismatic leader.

New industries need a visionary and enthusiastic leader who can drive industry development and lead others. The leader needs to balance the conflicting interests of various parties and keep the industry focused on the goals ahead. This has been described as 'guided democracy', whereby the process is democratic in the sense of allowing the views of all participants to be aired, but ultimately requires a leader to make decisions that are best for the overall interests of the new industry. The decisions made are binding on the participants (as in the cabinet form of government).

The **attributes of a good leader** of a new industry association include:

- A vision for the industry and a clearly defined strategy going forward
- Passion, energy and drive
- Humility and the ability to mix with a wide cross-section of personality types, who may often have conflicting agendas
- An ability to mentor/mediate

- Creativity and innovation
- Tenacity and drive
- Resourcefulness.

It is not always easy for a new industry to find such a person.

Unfortunately, leadership in new industries can often be bestowed, essentially by default, on those participants who have time on their hands; it is often the busy person who should be installed as leader, since they are most likely to be the de facto leader of the industry already, and are more likely to have the skills to be a good leader.

The participants in this research believed that if a strong leader does not naturally emerge, it is in the best interests of the industry to find such a person and attract them to the industry, even if they are not an active participant. For example, a retired businessperson living in a particular area may make a good leader for the organisation. Such a person has the advantage that not only are they likely to have the skills, but they would also have a degree of independence and could make decisions for the benefit of the whole industry rather than for any particular subgroup within it.

Not only is it important to attract a good leader, it is also important to have a succession plan in place whereby up-and-coming leaders are being groomed for the future. An observation was made by participants that it would be useful to get younger, energetic people and let them learn from the experience of others before taking on the job. Some industries have gone to the point of formally identifying potential leaders and grooming them by putting them through training courses and funding them on overseas visits and visits to key events.

Some study participants felt that attracting a strong **industry development officer** in a paid position can compensate for weaknesses in new industry members. A development officer also needs to be a strong personality, with the skills to motivate the industry through the sheer respect they command because of their ability.

However, in the past the establishment of an industry development officer position has often encouraged members of the industry to abrogate their primary responsibilities towards the industry, on the basis that they feel all industry activity is the responsibility of the development officer. An industry development officer should only be a facilitator of new industry activity in an area and not the new industry creator.

### **Mentoring**

Study participants noted the importance of having access to suitable mentors. A mentor is an experienced person who provides wise and trusted guidance, advice and counselling to another person, who does not have the same level of experience.

Mentoring is needed both for new industries and their individual enterprises. New industry participants tend to feel alone and are unsure about the decisions they need to make. There is significant benefit likely to be gained from being able to talk to someone with prior experience and to share ideas. By definition, a new industry is not likely to have large numbers of mentors available, since the industry is only new.

Natural mentors would be people in the same industry who have already succeeded. Alternatively, they can be people who have pioneered another new industry and learnt from their mistakes. A good mentor focuses on the application of principle rather than simply providing answers.

Examples were given by study participants of wise mentors who had made a major contribution to their careers. Mostly these mentors seemed to be ex-scientists or industry development officers who had worked for organisations such as the state departments of primary industry or the CSIRO. Such people not only have the scientific and academic skill, but also have many years experience and are

extremely pragmatic and helpful. Because they command so much respect they have a very powerful influence on the direction of the industry, and play an important role. These types of wise mentors need to be encouraged.

New industries should identify potential mentors and establish a formal or semi-formal mentoring network to assist new industry participants in their decision making.

## **5.4 Strategy and planning**

Statements made by the participants in this research implied that there is a need for a big picture, long-term strategic plan for any new rural industry. Whilst this assertion was not articulated so concisely, all their comments are consistent with this conclusion.

The participants described the approach taken by their new industries to production planning, supply chain development, marketing and promotion, R&D, etc. Each of these efforts had usually been approached in an ad hoc manner, with the result being that progress was slow and resources were wasted.

What the participants were describing was the need for a thoughtful, well-considered strategy plan, perhaps covering a five-year period.

The key to effective strategic planning is to have a shared view of where the industry is heading: of the markets being targeted, the supply chain operations, the marketing strategy, etc. After this has been achieved, strategic analysis is then required to identify and articulate the opportunities, constraints and blockers to achieving the desired outcomes, and the key performance and critical success factors.

The foundation for any strategic plan is a situation analysis that methodically works through the issues and identifies strengths, weaknesses, opportunities and threats. These elements need to be built around a clear strategic plan with defined development steps.

### **The need to stay focused**

A clear message from the participants in this research was the need to stay narrowly focused. Many participants believed they commenced operating on too broad a front, pursuing too many different aspects at one time.

For example, in the Australian native food industry, the participants felt that they were trying to develop too many species, too many products and too many markets at once. This resulted in fragmentation of resources and a loss of focus. Ultimately they have not achieved the outcomes they had expected.

They felt it would have been better to focus on one or two products or projects, and get these perfected in a fully integrated way, before attempting any others.

An important aspect of strategic planning for new industries is an understanding of the five different stages in new industry development described in Section 3.5.

The priorities and strategies will be different at each stage of development and hence they need to be matched to the development stage of the new industry. There are different critical success factors at each stage of new industry development and these need to be understood and reflected in the strategic plan.

### **The need to achieve critical mass**

Many new industries fail because they do not achieve critical mass: that is, the volume and resources to develop a market and achieve the volume production threshold needed for cost-effective production. How critical mass can be achieved should be a consideration within the strategic plan.

Production and processing are usually intimately linked; a sufficient level of production is required to render a processing plant worthwhile and vice versa. These capabilities need to be created progressively in a balanced staged-gate approach.

## 5.5 Budgeting: funding and economics

### Industry funding

Successful new industry development is a function of money and time. The more money available, the faster that progress can be made. New industry participants were unanimous in describing the funding available for new rural industries as inadequate. The participants believed they had underestimated the amount of work involved, the time involved, and therefore the amount of funding required to do the job well.

As described in Section 3.4, the chaotic nature of new industry development means that predictions of outcomes are impossible to make and decisions can only be made about progress as development continues.

New industries need both reliable market research and solutions to production problems. One challenge facing new industry development is to establish a new industry association to take on the responsibility of solving the industry's problems through commissioned R&D. The research would be funded by levies paid by the members of the industry.

However, it is difficult for an association to collect the necessary level of operating and research funding without deterring people from becoming members of the association. Study participants saw a **compulsory levy** as desirable, but many associations struggle to implement this.

The alternative of a **voluntary levy** also has shortcomings. A voluntary levy discriminates between the commercial operators and the lifestyle farmers. If commercial operators are the major financiers, they would want control over the spending of funds. If there are many smaller operators, they would feel they represent the majority of the new industry members.

Such an imbalance is frequently encountered in new rural industries. Whilst the large new industry operators are the source of most product in the market, they do not always support new industry associations.

Larger participants in a new industry may attract government subsidies for research projects that are designed to benefit the whole industry. These larger operators can expect the greatest benefits for themselves, since they are intimately involved with the research throughout and have partly funded it.

The new industry participants felt that some **other funding model** than levies should be used for new industry development. One proposal is that a company structure may be more appropriate than an association structure, because it provides a better foundation for collecting funds.

### Economics

An understanding of costs and cost control is often lacking in new rural industries, both at an enterprise and whole industry level. Producers often lack knowledge of their real costs of production, and some participants are reluctant to cooperate and share information and technology to achieve economies of scale and bring costs down.

#### *Knowing the costs of production*

Many new industry operators, especially the lifestyle farmers, do not know their true cost of production. It is therefore difficult to see how such enterprises can assess their economic viability.

Many new industry enterprises do not account for their true operating costs, such as land costs, depreciation, or their own time and that of their family members. As a result it is common for new industry operators to sell products at below the true cost of production, which ultimately leads to business failure.

It is also difficult to estimate the advantages of achieving economies of scale through investments in improvements (such as mechanical systems), if the original true cost of production is not known.

There is a need for the true costs of production in a new industry to be benchmarked across the industry, so participants know where they stand, relative to other operators in a similar situation. As well, there is a need for Australian industries to benchmark against their global competitors to gauge how they perform relative to the global competition.

The simple act of introducing a cost-benchmarking framework could in itself bring about a major improvement in industry performance. It could also provide an incentive for people to improve their individual performance, and for those who are not competitive, to realise this more quickly and leave the industry. Such findings can also be an incentive for cooperation, once the benefits of cooperating to achieve economies of scale are evident to the participants in a new industry.

### ***Critical mass and economies of scale***

The achievement of **critical mass** has already been identified as a success factor when discussing marketing and strategic planning.

The participants in this research recognised critical mass and the subsequent economies of scale as important factors in determining both the viability of a new rural industry and the viability of the separate enterprises within those industries.

Critical mass impacts in three ways:

- 1 It achieves sufficient volume of product to support the resources necessary for a supply chain (e.g. processing facilities).
- 2 It achieves sufficient volume of product to be able to supply major customers on a continuous basis.
- 3 It provides the resources to support adequately financed market research and promotion programs.

The threshold volume for critical mass of food products continues to rise, through the influence of the major supermarkets and their form of closed-loop supply chain management. Major supermarkets prefer to link with producers who can supply their requirements to strictly determined guidelines on a year-round basis.

New industries are too small to supply product all year round. They also find it difficult to sustain shelf space in larger retail outlets because they can't achieve the weekly stock turnover hurdle rate. This means they must then pursue second-tier outlets, such as specialists and independent retailers, who are much more difficult and costly to deal with.

There is also an issue of critical mass and economies of scale at the enterprise level. Very small operators do not have the resources to do their own marketing or to participate in a supply chain. The historic solution to this is the development of statutory marketing authorities or cooperatives which provide a basis for achieving the critical mass.

There is a need for newer versions of collective marketing which are more appropriate to modern-day conditions and are suited to the needs of today's new industry participants.

One of the issues recognised by the participants in this research was the problem of managing intellectual property in new rural industries. Typically, many participants in new industries protect their intellectual property to the extent that they will not share it or cooperate with other producers and partners in the supply chain. They do not see partners as collaborators for mutual benefit. Such protective behaviour fragments the industry and works against achieving critical mass.

In new industries, many enterprises focus on their own agenda rather than taking a whole-industry perspective. A more cooperative spirit will produce a better outcome for all involved. Amongst the participants in this research there was strong recognition of the need for new industry partners to work more closely together to achieve critical mass and the associated economies of scale, but not of the need for a totally united strategic effort.

It is not only essential to have critical mass at an industry level, but there are advantages to achieving critical mass in a geographic area. In the past, when a new industry has been concentrated in a particular geographic area it has performed better than more dispersed industries because of cooperation, information sharing and a willingness to work together. A collective marketing capability and promotion program can be focused on the region as well as the product. Where there is geographic fragmentation of an industry, regional factions can develop and cross-factional tensions can result.

### ***Economies of scale in production***

Economies of scale can be achieved if production units increase in size. This is because costs drop proportionately as overhead costs per unit of output are reduced. Most new industries operate on such a small scale that they cannot take advantage of mechanical systems to lower costs, so the developing industries remain labour intensive.

This is a major issue affecting the competitiveness of new Australian rural industries that attempt to compete globally. Labour costs in this country are high relative to many overseas competitors.

There was strong recognition amongst the study participants of the need to ramp up production to achieve the benefits from economies of scale. As well, members of industry associations recognised the need to attract the larger commercial and more professional operators because they have the capacity to achieve production volumes that contribute to economies of scale. This can then provide an umbrella under which the smaller operators can operate.

## 5.6 Production issues

One of the biggest challenges for any new rural industry is how to produce the product successfully.

Pioneers usually have no precedent to follow, having to develop production systems from nothing. They usually work alone. There are no industry experts with whom to share ideas, since the pioneer is usually the only expert. Hence, the cooperative ethic which is so important with successful supply chains may require a big change in approach for the industry.

New industry pioneers who have had to work through the solutions to problems by themselves, can be expected to feel some special degree of ownership over their findings. Hence, there is often an understandable reluctance to freely share what they have learned.

Participants in new rural industries are faced with finding the most efficient production system for their product. This does not mean that the production process is fully understood. It means that the experience gained with production in the past has established the steps that can be expected to generate the required product in the future.

Since most new rural industries involve growing a product under natural conditions, the conditions themselves will vary between locations and at different times. Transferring production systems from other places, especially from overseas, will usually require some degree of adaptation in Australia. The experience gained through this adaptation is invaluable, but cannot be achieved quickly.

The new industries that have been most successful in adapting their production systems are those whose systems are most similar to conventional production systems. Experience from a closely related domain enables pioneers to work through the issues much faster, since they can apply principles from the related knowledge. Nevertheless, there is still a large amount of trial and error with developing the production process for a new product, and this requires time.

Some participants in this research observed that, once a suitable environmental niche has been established for a new industry, it is easier to develop a geographic cluster with a number of participants in close proximity to each other. This will happen if the local champion is able to facilitate the entry of his neighbours into the industry. This makes it easier to work together and share knowledge.

Unfortunately, some new industry participants are quite protective of their expertise, seeing this as a point of competitive advantage and a potential loss for them if others were to acquire it. The speed of a new industry's progress has often appeared to be directly related to the amount of collaboration and information sharing that occurs.

A common production challenge has been the accessing of suitable germplasm. Animals or plants that do well in one environmental regime do not necessarily respond in the same way in another place. They may not respond to the environmental cues in the same way, or they may encounter some pest or disease in the new place. Experience with germplasm can only be gained over time, and if the germplasm is unsuitable either the germplasm or the environment needs to be changed and trials recommenced.

It is important to access the experience gained from other places before obtaining germplasm for trialling. This experience should include an analysis of both the relevant environments and the particular germplasm.

The new industry participants in this research identified specific examples of industries accessing germplasm without adequately considering the previous experience. However, there is no guarantee that such information exists for every new industry, or that it will be made available in a usable form.

Research for new rural industries needs to be focused on finding simple solutions to the problems involved in getting the best possible product to market.

In summarising the key production issues for new industries, the participants in this study recommended the following:

- Focus on identifying the key components of the production system that will deliver a product the customer needs.
- Get good advice, particularly from experienced people who may have gained their knowledge from related industries.
- Spend the time to access the germplasm **and** the prior experience gained with the germplasm, including the environments in which it was previously used.
- Keep research focused on the product which the consumer needs
- Develop a means whereby participants in the new industry can share their experiences, learn about the most efficient production systems, and cooperate in improving the production system.
- Encourage the proliferation of the appropriate production system within the chosen environmental niche so that critical mass can be achieved in a geographic area.

## **5.7 Research and development**

The process of R&D into new rural industries supports and encourages the growth of the knowledge base in that industry. For example, if the production system is to be adapted to new environmental conditions, research is required.

The participants in this research recognised the importance of R&D at a very early stage, mainly because of problems they were encountering in the successful production of their products. They admitted to making many mistakes with respect to R&D, and wasting a lot of resources and time.

The R&D process needs to be focused. Fragmentation and dilution of effort occurs through pursuing too many research projects at one time. Each will therefore lack sufficient resources or focus, and the benefits from the investment will be sub-optimal.

There is a need for new industry participants to have an integrated R&D approach whereby a particular problem is tackled to fruition and the benefits then incorporated into the new industry. Such an approach requires an industry-focused program rather than a project-by-project approach.

### **Role of RIRDC**

The Federal Government sponsors new industry R&D through the Rural Industries Research and Development Corporation (RIRDC). The Corporation plays a critical role in new industry development in Australia. In considering this role, study participants reported that RIRDC data sources are valuable for industry, and its publications and research reports are easily accessible and highly regarded.

The participants in this research were highly complimentary about RIRDC and the contribution that it has made to new industry development. Many reported that the involvement of RIRDC in their industry had been critical to its success. There was also acknowledgement of the contribution of specific officers within RIRDC.

### **RIRDC's R&D-funding processes**

RIRDC invests considerable effort to ensure that its funding is commercially focused and in line with industry priorities.

Officers of RIRDC have been collaborating with new industry participants for several years to create industry-based R&D plans within which sponsored research projects may be located. Such R&D plans have been developed for agroforestry in northern Australia, Asian foods, Australian native food, the Australian olive industry, the buffalo industry, the culinary herb industry, deer farming, fodder crops, the honeybee program and the organic sector.

Other forms of plans and preliminary feasibility studies have also been completed and made available by RIRDC. Recent examples of such plans, studies and enquiries include:

- strategic plans for the Australian farrier industry, the Australian longan industry, the Australian rambutan industry, and the kangaroo industry;
- business plans for the Australian mohair industry and the coffee-growing industry in New South Wales;
- Do Our Own Marketing research workshops for Australian wildflowers and native plants and many other new crop species;
- marketing analysis and plans for the camel industry; and
- feasibility studies or other forms of enquiry into the possible commercialisation of antelope, beefalo, bison, blubber jellyfish, cane toad, caper, cashew, cranberry, cacao, Davidson plum, earthworm, fox, frog, goanna, green tea, guinea pig, hare, llama, lupini bean, magpie goose, guayule, industrial hemp, jojoba, marron, mussel, mutton bird, paprika, possum, rambutan, red bayberry, new root vegetable crops, snake, wallaby, wild boar, witchetty grub, yabby and yak.

When inviting applications for research funding, RIRDC states that applications are most likely to be supported if they address the research priorities stated by RIRDC, meet industry needs, and are developed in consultation with the industry and RIRDC.

RIRDC uses R&D Advisory Committees to evaluate each funding application for its potential benefits to the Australian rural sector. For example, preliminary applications for support are considered against the answers to the following questions:

- Does the research match RIRDC's role and priorities?
- Will the outcome of the research have any impact on sustainability or biodiversity?
- Does the research have benefits for the targeted and associated industries, will it improve understanding, and does the industry support the proposal?
- How will the research outcomes be transferred to the industry and adopted?
- Are the objectives and strategies of the research sound, feasible and achievable?
- Are the applicants capable of conducting the research?
- Is the cost appropriate?

For some years RIRDC has placed strong emphasis on adoption by design, by which the pathways for adoption of the research outcomes by industry are included from the conception of the research.

Any individual, company or organisation can apply for RIRDC support, so long as the proposed research can be undertaken methodically and rigorously, critically analysed, and accurately reported by the applicants or their collaborators.

Over the years, most RIRDC research contractors have been public sector research providers. However, there has been a recent trend towards more private contractors.

### **New industry R&D plans**

It is essential that an R&D plan be agreed upon by new rural industry participants early in their deliberations. This plan seeks to identify the likely factors leading to success or failure in their industry, and then targets research to learn more about the most important of these factors.

This approach seeks to integrate each piece of research into a logical continuum focused on commercial success. This integrated, systems or holistic approach replaces the ad hoc approach so often adopted, whereby a new industry seeks to identify that single piece of knowledge that will make an industry viable.

The nature of the complex interactions between every factor in the production system, and the dynamic interactions between each link in the supply chain, mean that single research discoveries out of context only bring more confusion to the new industry.

A systems approach is essential with new industries. If a single research finding from a piece of ad hoc research has significant implications for part of a new rural industry supply chain, then it is likely that it will impact on every other component in the industry, requiring further research. Hence, the necessity for an integrated approach.

There was strong agreement amongst the participants in the research reported here that there was a need for a solid R&D strategy plan; that is, a series of integrated projects that target the major problems of the new industry for the next five or ten years. These projects would be prioritised in terms of their capacity to improve industry performance and would be reviewed regularly, especially if new information became available.

### **R&D partnerships**

Also important to the participants in this research was the nature of the R&D partnerships between new industry participants and suitably qualified researchers. Several participants had benefited from interacting with experienced researchers from established agricultural industries; it would appear that the benefit came from the researcher's maturity rather than from any specific information available from the other industry.

Some participants in this research suggested that:

- Entrepreneurs and corporations could be more actively encouraged to seek new industry funding.
- R&D funding should be focused on those participants most likely to succeed taking account of the dynamic nature or the chaotic behaviour of new industry development.
- More coordination was needed between government bodies who offer funding. An example was given of one industry that doubled up on the same research funding with both state and federal agencies.
- R&D projects should be focused on areas and industries that give a strategic advantage to Australia.
- There was insufficient government support to bridge the gap between production and commercialisation of products; as described above, R&D funding allocated by RIRDC is seen as a contribution towards commercialisation.

- The leap from small entrepreneur to mainstream commercial producer is significant.

## 5.8 Other factors

### Industry structure and associations

There was a consensus view that a strong and united industry association is a critical factor in a new rural industry; the topic of industry associations does however cause frustration and angst.

Lack of cohesion in new industry associations can be related to the diversity of motivation amongst the members: the commercial operator and the professional investor will have very different aspirations from those of the lifestyle farmer. Most of their agendas and priorities need to be accommodated within the industry.

Industry associations need to include the lifestylers because they will probably represent the majority of the fee-paying members of the association. However, large numbers of these participants can be disruptive, where their agenda may focus on lifestyle factors rather than on commercial returns.

Some new industry associations are only production focused, and may even exclude other members of their future supply chain, such as those responsible for processing, transport and packaging, as well as those in the wholesale and retail sectors. The production-focused association members may even feel resentment towards the other links in the supply chain. This animosity can arise because the producers cannot readily identify the value that the other members in the supply chain are adding to the product.

This situation can inflict a great cost on the new industry, because by neglecting the considerations and contributions of these allied members, the industry can lose sight of the importance of taking a whole-of-supply-chain view and may only focus on production issues.

### *Role of peak bodies*

Fragmentation and disunity can be a problem for new industry associations. This is partly the result of being geographically isolated from each other. If organisations are formed in several geographical areas, the agendas can often be different. This is healthy, provided each of the area associations comes together under a **peak body** and speaks with one voice, particularly in their dealings with government.

Peak bodies can often become dysfunctional through warring regional factions. Governments require one representative body with which to negotiate.

### *Industry delegates*

There was strong agreement amongst the participants in this research that there is a need to have good industry delegates to represent the views of their constituents. A good industry delegate has energy, vision and leadership qualities as well as the ability to listen, collect and clearly articulate the views of the industry constituents.

Many participants identified problems arising from the election of unsuitable delegates. New industry members who offer themselves for leadership often have very strong personalities and have their own agendas. Such agendas do not necessarily reflect those of the people they represent. Such delegates divide their constituents and become quite destructive, which is counter-productive to their required role of bringing people together.

### *Industry structures*

The form of a new industry association may change over time. Many participants in this research described how associations are often inaugurated with all members having equal influence. As already described, many larger commercial operators may not belong to such an association since the wishes of the majority will prevail. Some new industry associations allow members who are not practically involved in any aspect of the industry but instead wish to learn about the industry.

### ***Board members***

There is a need to have strong board members for any new industry association. They need to represent the interests of all components of the industry, including production, research, accounting, legal and trade. Entrepreneurs with ideas and vision can provide worthwhile leadership.

New industries often attract professionals from other fields who can provide energy and talent, so long as they are permitted some role to express it.

The participants in this research believed that board members should be paid directors' fees. It was felt that board members have to work very hard and spend a lot of their own time on industry matters, and after a while people burn out. When remunerated, this tends to happen less often. It also encourages greater commitment, longevity and closer adherence to corporate governance. If directors have been paid, they are more accountable for their actions, have an obligation to be more ethical, and will follow established corporate governance rules.

### ***Industry development officers***

The participants in this research observed that the more successful new industries often had the services of a paid industry development officer. Such an officer devotes all of his or her time and energy to the industry, following up the administrative duties that are required and lightening the load of the volunteers. The problem is that new industries need to have enough resources to pay such an officer.

As mentioned above, some industries do not understand that the role of the industry development officer is to be the facilitator for their own efforts, rather than the person responsible for all the industry development activity.

### **Farming clusters**

There is an advantage in forming farming clusters, whereby a group of new industry operators work closely together in a de facto corporate model. Hence, the members can share equipment, production and processing facilities, labour, etc., and can collectively market their product. The challenge that the advocates of cluster farming are finding is to identify a legal structure that will provide a suitable replacement for the old cooperative model.

The advantages of a geographical cluster include:

- Better information sharing
- Easier administration
- Location of critical mass in a particular area, which supports collective harvesting, processing, value-adding and marketing
- Minimisation of transactional cost
- Better communication
- Easier development of suitable production techniques, since the focus remains on a single geographic area.

### **Managed investment schemes**

The participants in this research had a mixed view on the role and contribution of managed investment schemes (MISs) in new rural industries. The current macadamia, olive and avocado industries in Australia are examples of industries that involve MISs.

The positive contributions of MISs in new rural industries include:

- provision of skilled workers who contribute to the rural economy;
- establishment of critical mass and the ability to influence the remainder of the new industry;
- heavy investment in R&D projects;
- new industry leadership; and
- professionalism.

The negative contributions of MISs in some instances have included:

- less cooperation with the remainder of the new industry;
- protection of research findings from the remainder of the industry;
- lack of involvement in industry events (but sometimes assumption of a leadership role in financing and running such industry events); and
- use of a form of pyramid selling, causing speculation and serious damage to the industry.

In addition, they have sometimes facilitated supply chain development, but have also sometimes been associated with market gluts.

### **The role of government**

The participants in this research considered that government has an important role to play, assisting in a number of ways with the development of new rural industries.

Through RIRDC, the Australian government has provided past funding support for the development of R&D plans for a number of new industries. As mentioned above, these plans have been designed to ensure that the new industry's research effort is not fragmented and any research conducted is properly targeted. Hence, the subsequent research can be strategically or commercially directed at solving problems in the industry and addressing issues that are considered high priority.

New industries also need government assistance in terms of leadership and direction. Government can assist with helping new industries determine their strategic direction.

As mentioned already, the participants in this research felt that many new industries lacked an integrated strategy for progress, and instead tended to approach the solution of problems in an ad hoc, short-term manner. This was often wasteful of resources and time, and often set the industry back. It was felt that the government's facilitation of a better strategic direction was a major contribution.

Government could also assist new industries by developing and maintaining networks of mentors and making them available through its network of contacts. It was **recommended that RIRDC could create a formal mentoring program that could identify and network these arrangements.**

New industry participants are often confused by the number of government departments with whom they have to deal. New industry participants do not feel confident in navigating the various organisations to determine what they have to offer. Hence, **a valuable contribution of government would be to assist new industries with the task of navigating the pathways of inter-government agencies.** Examples given included the difficulties with gaining market access for new industries, or the problems associated with importing germplasm.

It was also **recommended by study participants that government departments with a responsibility for new industries should coordinate their efforts more closely.**

## 6. Implications

The findings reported in Chapter 5 are consistent with those of previous studies, as summarised in Chapter 3. Participants with experience in new rural industries agree strongly on the importance of underpinning all decisions, including the choice of germplasm and production systems, with good market research. Sound strategic planning at both the industry and individual enterprise level, development of strong networks, partnerships and supply chain relationships, careful costing and budgeting, implementation of knowledge-based production systems, and tightly-focused, integrated R&D are other factors integral to success of new industry ventures.

Success factors vary from industry to industry, and also depend on the new industry's stage of development.

Based on the work reported here there are seven generic success factors for every industry at every stage of development. These are discussed in Section 6.1 below. Aspects that may be especially critical at the level of the individual enterprise are summarised in Section 6.2.

### 6.1 Success factors for new rural industries

The seven success factors are:

1. A primary focus on customers and marketing
2. A viable source of competitive advantage
3. Capability in quality control
4. A well functioning supply chain
5. Effective leadership and strategic planning across the industry
6. Business proficiency and access to capital
7. Commercial and cutting edge research and development

#### **Success Factor One                      A primary focus on customers and marketing**

Most new industries underestimate the importance of marketing and market research. The process of marketing identifies and describes a product that the customer needs (and the industry subsequently produces); it determines how the customer will get the product and feel satisfied with it. A marketing program needs to be developed as an integrated part of the industry strategic plan if the industry intends to be commercially successful.

Individual enterprises in a new industry would generally find it difficult to complete a marketing plan themselves, so cooperation between enterprises within an industry is important to create the critical mass to support the development of a marketing plan.

Primary producers in established agricultural industries focus on efficient production, since their product identity and its market are well established. Participants in new industries need to focus instead on the needs of the customer so that production systems can be designed to generate a new product that customers want.

**Successful new industry marketing** requires that the partners:

- 1 Focus on a differentiated product that customers need, underpinned by a clear understanding of the customers and their preferences as well as their purchasing habits
- 2 Assess the market opportunity, the size of the market, the growth trends in the market, the market structure, its segmentation and the likelihood of competitors producing similar and substitutable products

- 3 Understand the value proposition from the customer's point of view—for example, does the customer prefer purchasing a specific product at a specific place at a specific time for a specific price?
- 4 Promote the product in terms of the customer's needs
- 5 Identify and measure all costs, including overheads and everyone's investment in time, then set prices that will both reflect the value of the product to the customer and enable long-term industry growth
- 6 Approach the market as a collective new industry rather than one that is fragmented and internally competitive
- 7 Seek to represent the product with a brand and appropriate packaging
- 8 Benchmark across the industry as well as across the international competition.

### **Success Factor Two                      A viable source of competitive advantage**

New industries need to be realistic about their competitive advantage. Labour-intensive industries will never be able to compete on price in a locality where labour costs are high unless machinery can perform the tasks well.

A new rural industry in Australia may be able to **compete successfully** in domestic and/or global markets if:

- their product is unique and customers want it; or
- their product can be differentiated from competing products on the basis of quality or some other aspect of the value proposition of the product; and/or
- they can supply a product that customers in the northern hemisphere want during their off-season; and
- they can implement production systems that support profitable and reliable supply of the product with consistent quality at a competitive price.

### **Success Factor Three                      Capability in quality control**

The foundation for success in a new industry is to produce the product the customer needs. Most new industries begin with trying to achieve acceptable and reliable yields of a certain quality, which requires identifying the appropriate germplasm, managing pests and diseases, streamlining harvesting and processing, and so on.

**Successful new industry production** requires that the partners:

- 1 Focus on the products that are in demand in the market
- 2 Identify each component of the production system with a view to its contribution to the end product
- 3 Establish relationships with researchers who can provide solutions to problems that may arise
- 4 Encourage and facilitate information sharing throughout the industry.

A new industry also needs all its members to comply with a defined code of practice if the required level of quality assurance is to be achieved across the supply chain.

A uniform code of practice for a new industry describes the kind of behaviour expected within the industry, and may extend to include product descriptions, quality assurance, etc. There needs to be standardisation in the terminology and the way products are graded, labelled and traded. It is easier to implement such a code of practice early in the industry's development and then regularly review it over time as the industry grows.

A successful new industry will have a **code of practice** which requires that the partners:

- 1 Give priority to establishing uniform metrics and language for grading and describing products
- 2 Develop a protocol and management system for doing this
- 3 Establish guidelines or protocols for industry member behaviour.

#### **Success Factor Four                      A well functioning supply chain**

A new industry must understand how the channels to the best prospect markets operate, and set about establishing relationships between supply chain partners to access these markets.

The structure of a supply chain varies from industry to industry, but typically supply chain links include the suppliers of germplasm and other requirements to the primary producer, the producers themselves, packers/processors, distributor/transporters, wholesalers, retailers and customers.

It is important to build long-term supply chain relationships and to stay loyal to them. The embryonic stage of new industry development tends to be characterised by deal-to-deal trading in an unstructured market, and may therefore not be conducive to the establishment of well-organised supply chains. However, even at this early stage it is possible and desirable to build relationships with likely long-term partners such as food service industry suppliers.

An essential component of these relationships is open, transparent, timely and honest communication. In fact, it is essential for the health of a new industry that it has open, transparent, timely and honest communication across all aspects of its operations. The industry body must be trusted and accountable to all members. Clear communication is a critical part of this.

In summary, the creation of a **successful new industry supply chain** requires that partners:

- 1 Identify the market (or market segment) to be targeted
- 2 Identify sustainable supply chain partners most appropriate to the chosen market segment
- 3 Establish effective, ongoing, structured lines of communication between the supply chain partners
- 4 Project a realistic view of the industry's position and outlook
- 5 Build relationships based upon mutual benefit along the supply chain.

#### **Success Factor Five                      Effective leadership and strategic planning across the industry**

An effective new industry culture develops around charismatic champions who can use their gifts to encourage a cooperative spirit throughout the developing industry. Game theory modelling shows that cooperation in such relationships will always be more productive in the long term than competition, since cooperation establishes reputations between the industry partners and this is the basis for mutual understanding.

New industries attract a diverse range of participants; it is the creativity and originality of these individuals that needs to be encouraged and harnessed for the development of the new industry.

Courageous leadership is required to maintain the focus of the new industry even during uncertain times. This will be achieved through forward-looking **strategic planning**, and through cultivation of a **cohesive and cooperative spirit** across the industry.

A clear and calculated strategic plan provides direction for a new industry and assists with decision making, whether it is everyday decisions or long-term investment and marketing decisions. New industry members can often be distracted with day-to-day issues and a calculated strategic plan can focus attention on the long-term goal. The best practice is to develop a five-year industry-wide strategic plan, updated annually as the industry grows and markets change.

A strong and focused industry association is needed to represent the entire industry, including all aspects of the supply chain; the association focuses on bringing the strategic plan to fruition and seeks to have credibility and strong links with all levels of government.

A useful **new industry strategic plan**:

- 1 Takes a long-term strategic view of the industry
- 2 Recognises the opportunities, markets, market segments and supply chains required to be commercially successful
- 3 Identifies the problems that are likely to occur, and outlines approaches to find solutions
- 4 Addresses issues associated with being able to access the skills that will be required for the industry
- 5 Is realistic about what can be achieved, how long it will take and which resources will be required
- 6 Is updated regularly as the industry develops.

The **creation of a successful new industry culture** requires that participants:

- 1 Seek out a leader with strong leadership qualities, including vision, passion, energy and drive, humility, creativity, tenacity, resourcefulness, truthfulness, diplomacy, enthusiasm, etc.
- 2 Appoint a leader from outside if there is no-one suitable from within the industry
- 3 Encourage future leaders from within the industry through mentoring
- 4 Compensate good leaders appropriately
- 5 Identify mentors who have knowledge and skill
- 6 Mentor all industry members to encourage a cooperative culture
- 7 Recognise the importance of champions in new industries, and energise and support them for the benefit of the whole industry
- 8 Value the diversity of new industry partners and harness it for the benefit of the whole industry
- 9 Create and build a culture of consultation, collaboration and cohesiveness, and understand the critical importance of a united and strong industry organisation.

#### **Success Factor Six                      Business proficiency and access to capital**

New industries require capital for R&D, marketing, promotion, and product and market development. A robust funding mechanism is needed to target these resources. Imposing levies on members may create problems that are usually associated with the inherent diversity of the industry's membership.

**Successful new industry financing** requires that the partners:

- 1 Recognise the importance of being able to fund the core activities of the developing industry to ensure growth
- 2 Carefully estimate and budget the industry's financial requirements
- 3 Establish a robust funding model
- 4 Establish rigorous and transparent accounting systems.

Business proficiency, sound business planning and access to sufficient capital are just as critical at the level of the individual enterprise. Initial business planning must include rigorous, realistic costing of all upfront and ongoing inputs, including labour, and the most conservative estimates of yields and returns.

### **Success Factor Seven            Commercial and cutting edge research and development**

Since the participants of new industries are pioneers, many discoveries must be made. As problems arise, solutions need to be found. For those problems that cannot be solved through enquiries within the industry, outside the industry or from consulting the literature, R&D is required. Such research may involve germplasm, pest or disease control, quality improvement, product development, etc. A new industry requires a systematic R&D plan, as part of the industry strategic plan. R&D needs to be targeted to solving the specific problems facing the industry. Research activity for its own sake will rarely benefit the industry directly.

**Successful new industry R&D** requires that the partners:

- 1 Develop a plan that integrates the necessary R&D with the overall industry strategic plan
- 2 Identify and prioritise R&D projects based on the contribution of the likely research outcomes to overall industry performance
- 3 Encourage a long-range program approach rather than commission a series of independent projects
- 4 Ensure that R&D is commercially focused on the product outcome
- 5 Build long-term relationships with competent and experienced research providers.

## **6.2 Success factors for enterprises in new rural industries**

The above success factors will usually also apply to individual enterprises within new industries. This section seeks to highlight those aspects that apply more specifically at the level of the individual enterprise.

### **Business planning**

Like any enterprise, it is important to have a sound business plan before going forward. The business plan needs to take into account the marketing plan, production capability, capital requirements, costs of production, realistic estimates of returns, growth plans, continuing risk management plans, competitor analysis, and so on.

There are many templates for business plans available through such organisations as local Chambers of Commerce, business schools and regional development associations.

### **Realistic expectations**

Many people enter new industries with unrealistic and idealistic expectations. Lifestyle farmers have different expectations from commercial operators and financial investors, but each of these groups can have unrealistic expectations. Entrants to new industries need to be realistic about the degree of difficulty in commercialising new industry products.

New industry participants need to realistically estimate the following:

- The cost of entering the new industry; for example, does the land have to be owned?
- The ongoing costs of development
- The time involved, i.e. long working days and many years of development
- The hard work (particularly the physical hard work)
- The complexity of running a business compared to being a wage earner
- The varying financial pressures.

Many new industry entrants may also be moving to a rural community for the first time and facing the associated adjustments in lifestyle.

A good rule of thumb is to make a realistic expectation of the money and time involved in developing a new enterprise. Once this has been calculated, double both the time and cost, and then assess whether there are sufficient resources and commitment to continue. If the answer is 'no', then do not attempt to enter the industry.

### **Getting the production systems right**

The biggest challenge faced by most new industry enterprises is getting the production systems right for the product being targeted. It is important to get the best available advice and to share information.

Enthusiastic participation in an industry association is a good way of getting useful information. The association is also a likely place to access a mentor. It is also important that industry members willingly share their knowledge, so that new people can learn from each other.

### **Marketing**

Marketing is a specialised skill. Some individuals with the expertise, contacts and resources may wish to attempt their own marketing. The benefit of an industry association or a supply chain is that marketing can then be carried out by experts on behalf of the collective of producers.

### **Supply chains**

There are very few individuals who can perform all the tasks required to produce and market a new industry product. A new industry strategic plan explains how the product will get to market. It is therefore important that new enterprises seek supply chain partners with whom they can share the responsibility of getting the product to market. This could be through the industry association, or collectively with a group of producers.

### **Working together to achieve critical mass and economies of scale**

The members of a new industry need to cooperate if they wish to be successful; cooperation enables mentoring of the newer members and provides advantages in terms of economies of scale. Although cooperation will mean that profits will be shared with others, with cooperation there is a much greater possibility of there being any profits to share.

Each individual in a new industry needs to understand there is mutual benefit in supporting and contributing to a strong and healthy industry organisation. An individual's success will usually be linked to the industry's success.

If too many enterprises put their own personal interests ahead of the overall industry, it is this consultancy's observation that the industry is likely to fail. It is important that a fellow industry member is an ally, not a competitor.

New industries that fail do not usually have the economies of scale to be economically viable. Critical mass provides sufficient volume of product to support the resources, supply chains and capital requirements necessary to operate and succeed. Individual enterprises need each other to succeed.

To gain critical mass new industry enterprises must:

- 1 Recognise the importance of being a certain size before successful commercialisation can be possible
- 2 Focus on growth at both enterprise and industry levels with a view to drawing on these benefits once critical mass has been achieved
- 3 Recognise the contributions to growth possible through partnering throughout the supply chain, and through mentoring of new industry members
- 4 Encourage collective marketing and branding programs.

### **6.3 Conclusions**

Despite the diversity across new rural industries, this study found a large degree of commonality and crossover in the experience and lessons of the participants. People involved in new rural industries can benefit greatly from absorbing and acting on the collective experience of their new industry pioneers.

To assist this process, the findings from this research have been incorporated into a companion publication, *Turning a good idea into a profitable venture*, which is presented in an easy-to-follow guidebook format illustrated with case studies of new Australian rural industries at various stages of development and maturity.

# Appendices

## A1 Analyses of survey data

Table A1.1: Critical success factors for new industry development identified by 25 survey recipients and the rankings provided by the recipients;

(factors are listed from the factor most frequently identified down, using the frequency in the final column)

Critical success factor	Ranking					Frequency
	1	2	3	4	5	
Financial backing/financial resources/sufficient funding	2	2	2	4	2	12
Critical market assessment and research (i.e. barriers to entry/access to expert advice/market intelligence/industry scoping study)	3	4	1	2		10
Strategic business and scenario planning/demonstrated strategy linking production to opportunity/identified demand	2	3	2	1	2	10
Product integrity and quality standards/QA		2	2	1	3	8
Encouraging a collaborative industry effort/achieving critical mass	1	1	2	2	1	7
Strong industry association	1	1	1	2	2	7
Guaranteed market and viable market size/long-term sustainability of the market	5	1				6
Competitive product	2	3	1			6
Marketing/communication	2		1		3	6
Expert pioneers/entrepreneurship	1	1	1	1	2	6
Establishing research priorities and conducting research through a credible supplier/access to R&D	1	1		1	3	6
Understanding the value chain/supply chain management/vertical alliance system that is transparent			4	1	1	6
Market research	3	1				4
Economic modelling and sensitivity analysis			1		3	4
Grit/commitment/dedication/vision/passion				2	2	4
Confidence in production system	1	1	1			3
People/skilled labour base		1	1		1	3
Long-term view 5–10 years			1	1		2
Technology and mechanisation			1	1		2
Risk management				2		2
Supply consistency		1				1
Agonomics		1				1

Clearly articulated management structure			1			1
Effective partnering with government at all levels			1			1
Protection and management of IP			1			1
Infrastructure				1		1
Make commercial (not emotional) business decisions				1		1

Table A1.2: Critical success factors for new industry development identified by 25 survey recipients and the rankings provided by the recipients;

(factors are listed from the factor considered most important down, using the weighted index in the final column)

Critical success factor	Weighting					Index <sup>1</sup>
	5	4	3	2	1	
Critical market assessment and research (i.e. barriers to entry/access to expert advice/market intelligence/industry scoping study)	3	4	1	2		38
Financial backing/financial resources/sufficient funding	2	2	2	4	2	34
Strategic business and scenario planning/demonstrated strategy linking production to opportunity/identified demand	2	3	2	1	2	32
Guaranteed market and viable market size/long-term sustainability of the market	5	1				29
Competitive product	2	3	1			25
Encouraging a collaborative industry effort/achieving critical mass	1	1	2	2	1	20
Market research	3	1				19
Product integrity and quality standards/QA		2	2	1	3	19
Strong industry association	1	1	1	2	2	18
Marketing/communication	2		1		3	16
Expert pioneers/entrepreneurship	1	1	1	1	2	16
Understanding the value chain/supply chain management/vertical alliance system that is transparent			4	1	1	15
Establishing research priorities and conducting research through a credible supplier/access to R&D	1	1		1	3	14
Confidence in production system	1	1	1			12
People/skilled labour base		1	1		1	8
Economic modelling and sensitivity analysis			1		3	6
Grit/commitment/dedication/vision/passion				2	2	6
Long-term view 5–10 years			1	1		5
Technology and mechanisation			1	1		5
Supply consistency		1				4
Agronomics		1				4
Risk management				2		4
Clearly articulated management structure			1			3
Effective partnering with government at all levels			1			3

Protection and management of Intellectual Property (IP)			1			3
Infrastructure				1		2
Make commercial (not emotional) business decisions				1		2

<sup>1</sup>The weighted index for each row in the table is the sum of the number of observations in each column multiplied by the weighting, eg  $3*5 + 4*4 + 1*3 + 2*2 + 0*1 = 38$

Table A1.3: Critical lessons for new industry development learnt and listed by 25 survey recipients and the rankings provided by the recipients, (lessons learnt are listed from the lesson most frequently identified down, using the frequency in the final column)

Lesson learnt	Ranking					
	1	2	3	4	5	Frequency
Sound marketing plan essential/sales and marketing often poorly defined in new industries/know the market/collective marketing and research programs	9	2	1			12
Research sources of capital and target investors/have deep pockets	1	4	2	1	1	9
Develop alliances through active participation in industry groups/effective synergies	2	2			2	6
Develop a business plan and monitor progress/future planning is essential	1	3	1		1	6
Develop strong relationships with researchers and government bodies/pay for expert advice/adequate research	1	2	1	1		5
Understanding true competitiveness and comparative advantage	1			3	1	5
Know and use the value chain - do not develop new industries in isolation of chain partners/become 'chain' champion	1	1		1	1	4
Human resources, i.e. attract and retain staff/build a team		1		1	2	4
It takes longer than you think	1		2			3
Need to establish risk management plans			2	1		3
Learn from other successful new industries/no matter how different your new industry is, it's probably similar to most others.			1	2		3
Assumptions regarding production volumes and prices typically over-inflated in initial business plans	1	1				2
Quality control makes you a better farmer/do thorough research on production issues	1		1			2
Start small	1			1		2
Know the product/establish that there will be a long-term demand for products		2				2
Technology and mechanisation is essential		1	1			2
Apply unswerving commitment and patience			1		1	2
Afford the best resources you can i.e. physical, financial and personal			1	1		2
Understand the investment required to meet market demand			1	1		2
Legal and compliance and red tape cannot be under-estimated				2		2
Mitigation strategies need to be developed for each business phase				1	1	2
Hold onto the big picture but pay attention to detail	1					1
It is impossible to get total agreement	1					1
Funding for the national organisation and research should be through a mandatory levy system	1					1

Take time to work on the industry rather than in it.		1			1
There is a general lack of commercial understanding (e.g. IP issues)		1			1
The most significant decisions are usually made in crisis		1			1
Give all players the opportunity to participate in decision making if you also want their levy money		1			1
Understand if the industry can be entered at different levels of investment			1		1
Build good relationships with customers			1		1
Be flexible enough to expand			1		1
Consider all advice but in the end make your own decisions			1		1
The organisation should represent the whole industry			1		1
Remain flexible, realistic and opportunistic			1		1
Industry downturns can lead to a stronger industry				1	1
Be prepared for disappointment				1	1
Guarantee supply for set time period				1	1
An industry QA program that starts off with a very simple format and grows with market demands				1	1
Value adding is not the be-all-and-end-all, dangerous if undercapitalised or lack marketing skill				1	1
Create the best possible information system that feeds into your learning system				1	1
Don't rely on external support if things go wrong				1	1
If the project requires government grants, it probably means it can't survive on its own merits				1	1
Understand a cost/benefit analysis for the proposed level of investment				1	1
Always be on the lookout for new ways of doing things				1	1
Being independent is important; it allows you make decisions in your best interests				1	1
Focus on plan outcomes, not process				1	1
A common language for the product				1	1
Develop an exit strategy				1	1

Table A1.4: Critical lessons for new industry development learnt and listed by 25 survey recipients and the rankings provided by the recipients, (lessons learnt are listed from the most important down, using the weighted index in the final column)

Lessons learnt	Weighting					Index <sup>1</sup>
	5	4	3	2	1	
Sound marketing plan essential/sales & marketing often poorly defined in new industries/know the market/collective marketing and research programs	9	2	1			56
Research sources of capital and target investors/have deep pockets	1	4	2	1	1	30
Develop a business plan and monitor progress/future planning is essential	1	3	1		1	21
Develop alliances through active participation in industry groups/effective synergies	2	2			2	20
Develop strong relationships with researchers and government bodies/pay for expert advice/adequate research	1	2	1	1		18
Know and use the value chain - do not develop new industries in isolation of chain partners/become 'chain' champion	1	1		1	1	12
Understanding true competitiveness and comparative advantage	1			3	1	12
It takes longer than you think	1		2			11
Assumptions regarding production volumes and prices typically over-inflated in initial business plans	1	1				9
Quality control makes you a better farmer/do thorough research on production issues	1		1			8
Know the product/establish that there will be a long-term demand for products		2				
Human resources, i.e. attract and retain staff/build a team		1		1	2	8
Need to establish risk management plans			2	1		8
Start small	1			1		7
Technology and mechanisation is essential		1	1			7
Learn from other successful new industries/no matter how different your new industry is, it's probably similar to most others.			1	2		7
Hold onto the big picture but pay attention to detail	1					5
It is impossible to get total agreement	1					5
Funding for the national organisation and research should be through a mandatory levy system	1					5
Afford the best resources you can i.e. physical, financial and personal			1	1		5
Understand the investment required to meet market demand			1	1		5
Take time to work on the industry rather than in it.		1				4
There is a general lack of commercial understanding (e.g. IP issues)		1				4
The most significant decisions are usually made in crisis		1				4

Give all players the opportunity to participate in decision making if you also want their levy money		1				4
Apply unswerving commitment and patience			1		1	4
Legal and compliance and red tape cannot be under-estimated				2		4
Understand if the industry can be entered at different levels of investment			1			3
Build good relationships with customers			1			3
Be flexible enough to expand			1			3
Consider all advice but in the end make your own decisions			1			3
The organisation should represent the whole industry			1			3
Remain flexible, realistic and opportunistic			1			3
Mitigation strategies need to be developed for each business phase				1	1	3
Industry downturns can lead to a stronger industry				1		2
Be prepared for disappointment				1		2
Guarantee supply for set time period				1		2
An industry QA program that starts off with a very simple format and grows with market demands				1		2
Value adding is not the be-all-and-end-all, dangerous if undercapitalised or lack marketing skill					1	1
Create the best possible information system that feeds into your learning system					1	1
Don't rely on external support if things go wrong					1	1
If the project requires government grants, it probably means it can't survive on its own merits					1	1
Understand a cost/benefit analysis for the proposed level of investment					1	1
Always be on the lookout for new ways of doing things					1	1
Being independent is important; it allows you make decisions in your best interests					1	1
Focus on plan outcomes, not process					1	1
A common language for the product					1	1
Develop an exit strategy					1	1

<sup>1</sup>The weighted index for each row in the table is the sum of the number of observations in each column multiplied by the weighting, eg  $3*5 + 4*4 + 1*3 + 2*2 + 0*1 = 38$

## A2 List of participants

Don Beech, former CSIRO (research and advice)  
Jim Blackburn, Lonsec (agribusiness investment - horticulture, forestry, aquaculture)  
Peter Brooks, Collina Flower Exports (cut flowers)  
Robert Catherall, Victorian Olive Association  
Craig Chapman, Melaleuca Plantations of Bungawalbyn (tea tree oil, tea tree mulch)  
Brian Chung, Botanical Resources Australia (poppies, pyrethrum, specialty mushrooms)  
Professor Rob Clark, University of Tasmania (research)  
Michael Clarke, AgEcon Plus (agribusiness consultancies)  
Ray Collins, University of Queensland (research - horticulture and game meats)  
Ian Farquhar, Wasabi Growers of Tasmania  
Gil Freeman, Australian Native Foods  
Duncan Garvey, Perigord Truffles of Australia  
Gavin Gibson, Pulse Australia  
Michael Hastings, Australian Ostrich Association  
Andrew Heap, Australian Macadamia Society  
Sibylla Hess-Buschmann, Australian Rainforest Products Native Foods  
Shane Holborn, Lifestyle Horticulture, Queensland Department of Primary Industries (native flowers research and advice)  
Dr Andrew James, Cashmere Growers' Association  
Vicki Jones, Lotus Farm (lotus root, burdock, Daikon radish, macadamia)  
Shane Kelly, Advisor Edge (agribusiness investment research and advice)  
Sarita Kulkarni, Institute for Horticultural Development, Victoria (research and advice)  
Anand Kulkarni, Institute for Horticultural Development, Victoria (research and advice)  
Reg Lehmann, MediHerb (end user of medicinal plants)  
Ian MacLaughlin, Skybury Coffee, (coffee, papaya, longan)  
Bruce Makin, Emu Farmers Australia  
Iona McKinnon, Australian Alpaca Association  
Paul McLisky, NSW Coffee Growers  
Greg McPhee, Horticultural Communications Pty Ltd (summer fruit and nursery industries)  
Paul Miller, Australian Olive Association  
Jim Moir, Deer Industry Association of Australia  
Lindsay Packer, Kangaroo Advisory Committee (kangaroo and tanning industries)  
Ian Parkin, Australian Gum Products Pty Ltd (guar beans)  
Lodi Parmiejer, native cut flower business  
Adrian Parsons, WAFEX (fresh and dried flower sales and exports)  
Peter Purbrick, MediHerb  
Dr Chris Read, Tasmanian essential oils; native pepper (research and industry associations)  
Cameron Rhodes, Great Southern Ltd (agribusiness investment)  
Juleigh Robins, Robins Foods Pty Ltd (Australian native food products)  
Solange Shapiro, Deer Industry Association of Australia  
Mark Soccio, Advisor Edge (agribusiness investment)  
Geoff Sullivan, Redlands Farming and Foliage (Australian native flowers)  
Robert Tillman, Australian Tea Tree Industry Association  
Richard Warner, Agrilink Asia Pacific (research)  
Arjan Wilkie, Willmott Forests (long rotation softwood)  
David Williams (rare and natural fibres)  
Michael Worthington, Timbercorp (agribusiness investment)  
John Zevtveld, CAPE Australia (coffee)

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## Critical Success Factors for New Rural Industries

RIRDC Publication 09/002

New industries provide vital stimulus to the Australian rural sector. They present opportunities for farmers seeking to diversify their activities, for regions looking for new sources of income and employment, and for agribusiness investors.

However, many challenges and obstacles face those wanting to develop a new industry into a commercially viable, sustainable operation. This study, commissioned by the Rural Industries Research and Development Corporation (RIRDC), summarises and updates the current knowledge on the critical factors that need to be addressed in establishing a new rural industry.

This report identifies themes and draws together the key performance issues and critical success factors learned from consultation with a broad range of new industry participants. Drawing on the experiences and lessons of those who have travelled down the 'new industry' path previously, this research provides a valuable insight for all existing and prospective new and emerging rural industries or enterprise participants.

A handbook — ***Turning a good idea into a profitable venture: A guide to success for new rural industries and enterprises*** — has been published alongside this research report. This practical handbook includes case studies and snapshots of a number of RIRDC-supported new industries that illustrate the application of some of the principles highlighted by the research, and will be a valuable reference for any new rural industry participant.

[www.rirdc.gov.au](http://www.rirdc.gov.au)

Rural Industries  
Research and Development  
Corporation

Level 2  
15 National Circuit  
Barton ACT 2600

PO Box 4776  
Kingston ACT 2604

Ph: 02 6271 4100  
Fax: 02 6271 4199  
Email: [rirdc@rirdc.gov.au](mailto:rirdc@rirdc.gov.au)

