Why measures of farm business success matter

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Abstract
Measures of farm business – biophysical, financial, personal, community – are traversed in this paper. What constitutes success in farming has evolved over time, reflecting changes in the business operating environment and advances in measurement tools. Farmer of the Year competitions weigh success differently: community involvement and leadership are important criteria for one national award; others are heavily biased towards financial performance. Not surprisingly farmers view success in different ways too, emphasising the importance of understanding personal-family goals when evaluating success. While "success is in the eye of the beholder", on an aggregate basis continuous improvement for the pastoral sector is vital in sustaining competitive advantage in the marketplace. Looking to a future with fewer, larger farms, increased market competition and shortages of competent labour, better measures than those currently used are needed in relation to meeting customer needs, growing the farmers' share of market returns and optimising the human element in a farm business. Measures and their use by management are important if New Zealand farm businesses are to maintain their competitive edge in global markets.
Keywords: farm business, performance measures, top farms.

Introduction
The maxim, "if you can't measure it, you can't manage it" is oft quoted but less frequently acted on formally by farmers (Parker *et al.* 1995; Rawlings 1999; Parminter & Wilson 2001). This also applies to non-farming businesses (Kaplan & Norton 1996) raising questions as to why seemingly good management practices are not adopted by end-users (Gray *et al.* 2003). In establishing a meaningful measurement system, it is necessary to have a business plan with associated targets to assess whether the changes aspired to are being realised. Again, survey evidence suggests that the formal practice of planning and monitoring is not as widely practiced by farmers as one might expect, despite considerable extension and other input into this area of farm business (McCorkindale 1999; Parker 1999). During the past decade, the overall level of monitoring by New Zealand farmers appears to have increased in response to a more 'risky' business operating environment (Martin 1994) and better alignment of extension programmes to farmers' needs and learning styles (e.g. Sheath *et al.* 1999; McIvor & Aspin 2001). Case studies show that farmers who practice formal measurement and act on this information, on average, achieve business success superior to those who do not (e.g. McNeil *et al*. 1984; Doonan 2003; LaDue *et al.* 2003a,b). However, it is not axiomatic that those who do not formally measure their farm business cannot realise exceptional performance. Thus, one should not be too dogmatic in insisting on measurement in the way academics and researchers would like to see it done. These and other matters are explored further in this paper in the context of a brief historical overview of changes in the focus of measurement, current practice and suggested future improvements.

Historical overview
Measures of farm success are linked to the economic environment of the time, stage of business life cycle, advances in measurement technologies, and current emphases in research and extension. In New Zealand, land for pastoral production has progressed through overlapping eras of pioneering development (1850's-), production (1940's-), productivity (1980's-) and sustainability (1990's-) (after Bawden 1987). Early settlers were focussed on success in land-clearing and the establishment of new pastures; the 21st century farmer is focussed on sustaining the natural resource-base for productive pastures, achieving profitable productivity growth and supplying safe products to consumers. Farm business measures therefore continue to evolve, although success in all cases is ultimately dependent on achieving financial viability.

The farm management literature reports on the changes in farm performance measures through time. Studies in the early 1900's focussed on farm surveys to establish standards for comparative purposes and for governmental needs such as policy formation and capacity planning (Forster 1946). In the 1950-60's, a strong emphasis was placed on efficient resource allocation (planning), and there was lively debate on the use of industry standards versus establishing a

Table 1 A collation of “Top 10 tips” from ten of New Zealand’s most successful farmers (Adapted from: NZ Farmer 1999).

Success “tip”	No. of mentions
Planning, financial analyses, feed budgeting, farming is a business; critically analyse current practices and profitability (4)	13
Strategic thinking – set new goals and challenges; have a vision; high personal standards, plan your career and for retirement, willingness to learn	12
Value and profit; adopt management strategies to create margins, focus on sustainable profit	9
Livestock management: feeding, health and young stock-rearing	9
Pasture production, fertiliser, know your farm (soils, water), subdivision	8
Breeding, genetics	6
Risk management, maintain flexibility, “don’t hem yourself in”	5
Time management; priorities; “timing is everything”	5
Strategic use of capital: minimise fixed costs (machinery); flexibility to invest; pay off debt in good years	4
Monitoring, performance measures	3
Outside advice, use consultant, seek out information	3
Communication with stakeholders, financiers, partners, livestock agents	3
Keep an open mind, watch for opportunities, willingness to learn	3
Staff management, relations, experience	3
Pay attention to detail	2
Keep things simple; “stick to the basics”	2
Minimise costs	1
Business ethics, “Never compromise your integrity”	1
Focus on things you enjoy	1
Focus on factors within your control	1
Marketing – can I market the product?	1

Table 2 Contrast in “top 10 tips” of a business- and stockman- focussed farmer *(Source: NZ Farmer 1999).*

Business entrepreneur	Stockman
1. Spend quality time together as a family	1. Get to know the property
2. Seek out people with good positive attitudes and good work and life ethics	2. Keep good staff relations and good staff
3. Focus on factors within your control	3. Maintain soil fertility levels and use strategic dressings where required
4. Adopt management strategies to create margins	4. Maintain a good rapport with farm owners – be upfront and honest
5. Keep financiers informed and keep your word if you want them to support you	5. Know the importance of water and provide for the stock
6. Continually analyse what you are doing, looking for better and more efficient ways of doing things	6. Keep on top of animal health all year
7. You will only be as good as the standards you set for yourself	7. Grow your stock out well – they are the future
8. Good business is where both parties benefit from the transaction	8. Minimise non productive stock carried through the winter
9. Never compromise your integrity	9. Increase sheep production using exotic breeds to increase lambing % and bring the sale date forward
10. Continually challenge yourself, believe in yourself and enjoy yourself	10. Structure your career to gain experience and to succeed in management

farm's production possibility curve and the associated value of improvements at the margin (Candler 1962; Malcolm 1990; Parker *et al.* 1994). A strong emphasis began to be placed on farm operating profitability (measured as Economic Farm Surplus, EFS), by the dairy industry in particular, from the 1980's (Wilson 1986). Two new foci of farm business success emerged more strongly in the 1990's; wealth creation (Shadbolt 1999) and sustainability (Saunders & Cumberworth 1993; Shadbolt *et al.* 1997).

Following the rapid deregulation of the New Zealand economy in 1984, with associated increased business risk and 'user-pays', more attention was placed on farm business performance and its measurement (Martin 1994). During the 1990's, interest grew quickly in farm business strategy (Parker *et al.* 1997), underlying measures of farm productive efficiency (Pringle 2000) and the ability to generate an operating surplus above the cost of capital employed (Shadbolt 1999). A growing number of farmers now have a strategic plan and key performance measures (KPI's) aligned to this, and are being encouraged by lending institutions and other stakeholders to adopt these practices.

The economic environment for farming is becoming more "hostile". Factors contributing to this include globalisation and increased competition, declining real returns for commodities, reduced political influence by the rural constituency and the urbanisation of society in general, growing pressure for "animal- and natural resource-friendly" production and the absolute need to assure consumers that farm produce is safe. There is less room to make mistakes and the Crown is less sympathetic to providing support to farmers affected by natural disasters or economic hard times than in the past. Business risk has grown commensurately with this change in the farm operating environment, and has brought an explicit 'farming is a business' approach to agriculture that was not present in the 1950-70's era of government incentivised and protected agriculture.

Farmers' perspective

Leading farmers volunteered their 'top 10 tips' in a series published in the NZ Farmer (1999). The 1999 tips reveal a diversity of views on what farmers believe is necessary to succeed (Table 1), although underlying themes of planning, focus on profit and value, timing and attention to detail, and relationship management are evident. Farmers express similar practices in different ways, but a distinction between an entrepreneurial-business focus and a more traditional production manager can be discerned (Table 2, see also van der Poel (2000)). More overt measures of work-life balance are now appearing in relation to farm success. While family has long been a feature of rural living, a growing number of farmers are now writing down goals related to family-time, succession planning, lifestyle and personal development, and are viewing this as part of being 'successful' (Parker *et al.* 1997; Table 2).

Farmer of the Year competitions recognise outstanding farming operations at a regional and national level. The A.C. Cameron Award (re-branded FMG Rural Excellence) sponsored by the Royal Agricultural Society[1] *"not only rewards farmers for excellence in agriculture, but it also places an emphasis on innovation, leadership and community involvement"*. The Fonterra Westpac Dairy Excellence Award[2] aims to *"recognise, promote and celebrate dairy farming excellence"* and facilitate sharing of information on how excellence has been achieved. The Farm Environment Award[3] assesses excellence in *"how you are managing your land to meet production goals"*, incorporating aspects such as protecting and enhancing natural features, matching land types to land use, management of waterways, habitat enhancement and energy efficiency. Competitions benefit other farmers by sharing information on how success has been realised and, importantly, usually involves a field-day and associated publicity where farmers can view, read about and explore the management philosophy adopted by the winner(s).

Measures and strategy

Measurement by itself is not a panacea for farming success. Daniels (1994) observed: "*A great many people in business think measuring a problem is tantamount to solving it. If measurement alone changed behavior, there would be no fat people, no one would smoke, and everyone would exercise, because all of these behaviours and results can be easily measured"*. Similarly, the failure of the majority of strategic plans to realise the objectives set prompted Kaplan & Norton (1996) to reassess the relationship between plans and measures, and led them to formulate the Balanced Scorecard. The scorecard succinctly balances short-and long-term, non-financial and financial and lag and lead measures for a firm, and acknowledges that success is the amalgam of a multitude of factors. They evolved 'strategy maps' from this to *'give employees a clear line of sight into how their jobs are linked to the overall objectives of the organisation . . . a visual*

[1] www.ras.org.nz
[2] www.westpactrust.co.nz
[3] www.Ballance.co.nz

representation of a company's critical objectives and the crucial relationships among them that drive organisational performance" (Kaplan & Norton 2000, p. 168). Scorecard principles, including measures, were adapted for pastoral farming by Parker (1999) and Rawlings (1999) but they remain rarely practiced. Measures disconnected from strategy and non-aligned to objectives, difficulties in collecting data, poor appreciation of the benefit:cost ratio for measurement and too many measures are among the reasons why farm businesses are likely not to be successful.

Table 3 Percentage change in financial performance of service firms caused by a change in management, policy or cultural factors *(Source: Maister 2001).*

Factor	Effect of a 1-point increase[1]
Quality and client relationships	104.12
Employee satisfaction	42.06
High standards	40.40
Coaching	16.98
Commitment, enthusiasm and respect	13.92
Empowerment	10.47
Fair compensation	9.98
Long-term orientation	9.28

[1] Based on a 1-6 scale, where 1="strongly disagree" and 6= "strongly agree".

The human touch

How individuals and firms become successful is a fascination and subject of study for people across the spectrum of life. Textbooks, biographies and autobiographies chronicle a myriad of situations, testimonies and analyses of the elements that give rise to success. Notably greater recognition of the 'soft skills' or 'human touch' aspects of success has occurred in the scientific and formal business literature over the last decade. Maister's (2001) analysis of top centile firms for financial performance exemplifies this. By using structural equation modelling, he demonstrated causal relationships between firm attributes (management, policy and culture) and financial performance. Evidence from 74 firms indicated that (p. 75, Table 3):

- Financial performance is driven by adherence to high quality and client relationships.
- Quality and clients relationships are driven by employee satisfaction.
- Employee satisfaction is driven by high standards, coaching and empowerment.
- High standards are driven by fair compensation and commitment, enthusiasm, and respect.
- Coaching is driven by long-term orientation.

Does Maister's model for service firms apply to farming? Given the need to supply and assure quality produce, have satisfied staff, commit to high standards and take a strategic view, it is reasonable to postulate that it does. Besides the model is intuitively simple – meeting customer needs and making them feel 'valued and important', together with product reliability and performance to specification, have long been recognised as keys to business success. It follows that financially successful farms can be identified without even referring to their accounts; simply asking questions of the owners (and staff) about their vision and goals, customer needs, standards worked to, delegations and job satisfaction will provide information that strongly correlates to their profitability. Financial success is a consequence of people doing activities well, not the starting point, as powerfully illustrated by Kaplan & Norton (1996, 2000), and is the reason why a desktop analysis of accounts and production rarely leads to a significant improvement in a farm's performance. Further, Australian (Parminter & Wilson 2001) and New Zealand (Rawlings 1999) studies show a significant proportion of farmers do not understand or use financial measures, and measures of the farmer's share of market prices are not obvious. Roberts (2003) observed, " *If you just benchmark yourself against financial things, it's a way to run a business into the ground."* These realities point to future directions and further change to current practice in the design and application of farm business metrics. This should not be a surprise because, as Lew Platt, CEO of Hewlett-Packard observed, *"Whatever made you successful in the past, won't in the future"* (cited by Peters 1997).

Future directions

Metrics for farm business success should continue the trend towards:

- Better understanding customers and markets and how value is apportioned to participants in the demand chain.
- Meeting product and other quality standards, including those for animal welfare and environmental sustainability.
- Employee and owner job satisfaction, including feedback from stakeholders.
- Learning and growth (personal development) by owner(s) and staff.

If these measures are to be adopted in order to improve a farm's performance, fewer traditional production/financial measures (Boehjle 1994; Shadbolt *et al*. 1997) should be included at the strategic level of management. In this respect, Kaplan & Norton (1996) and others (e.g. Brown 1996) suggest fifteen or fewer measures are sufficient to assure business excellence.

Conclusion

Success in any business enterprise relies on achieving the optimum combination of labour, capital and other resources. In this regard, New Zealand farmers have a fine legacy of hard work, ingenuity and determination to succeed using the resources at hand, but a poorer reputation in business management and the use of formal metrics for evaluating business success. Strong political support and regulation of the rural economy tempered this weakness until the 1980's. However, globalisation, increased competition, more accountability for the use of natural resources in production and less influence by rural voters, all point to the need for farmers to get better at measuring their business in order to prosper. Informal monitoring will not be sufficient for agencies requiring evidence of responsible resource use or assurance of produce safety. And, as farms get larger and employ more staff, a subjective 'feel' for employee job satisfaction and their career aspirations will not be sufficient to effectively address staff needs or reduce the risk of losing key personnel. The human touch – strength and quality of relationships with customers, staff, family and community – is integral to the success of large farms in particular. Farmers are at the end of food and fibre supply chains and in a weak position to bargain the apportioning of value to participants en route to the consumer. This may explain the slow evolution of New Zealand from supply-driven commodity production to high margin niche products. Current metrics do not adequately address the soft skills or market-place aspects of farm performance, yet these elements are critical to business success. Their measurement, and therefore pliability by management, is important if New Zealand farms are to maintain their edge in global markets and thereby remain vibrant and viable.

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