AGRICULTURE IN TASMANIA AND IRELAND – WHERE ARE WE HEADING?

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Abstract

Ireland and Tasmania are similarly sized islands with a strong dependence on agricultural exports. Beef and dairy products are the main agricultural exports from Ireland, while beef, dairy products, sheep meat and wool, and processed vegetables are the main agricultural products exported from Tasmania.
The pressures facing agriculture in Ireland and in Tasmania are similar:

- *Increasing pressure on prices while costs rise.*
- *Greater focus on the safety, quality, nutritional and convenience aspects of food products, as well as the environmental and ethical issues associated with production of food and fibre.*
- *Competition for rural land primarily for rural lifestyle benefits, rather than for agricultural use, with the costs of farming land increasing significantly.*

This paper examines and compares how farmers in Ireland and Tasmania are responding to these pressures. The current response is primarily to increase productivity, per hectare and per labour unit. However, in the longer term more diverse solutions will be necessary.

Backgrounds

Ireland and Tasmania are similarly sized islands at similar latitudes (Ireland 52-55 degrees North, Tasmania 40-43 degrees south) and with similar climates (Temperate Maritime). Around 4.3 million hectares are used for agriculture in Ireland, and 1.6 million hectares in Tasmania (see Table 1). However, the main agricultural landuse in Ireland is grass production for beef and dairy cattle, with a small amount of cropping and a very small area of forestry. Tasmanian agriculture is more diversified with pastures for sheep, beef and dairy cattle, and cropping (particularly for vegetables).

The total value of agricultural output is considerably higher in Ireland than in Tasmania (€4,962m compared with €514m) due to a larger area of agricultural land, higher values for produce, and greater productivity per hectare. However, Ireland and Tasmania are both highly dependent on export markets.

Table 1: Comparative statistics, Ireland and Tasmania

	Tasmania	Ireland
Areas of land: Total area (ha) Agricultural use (ha) Forestry use (ha)	6.8m[1] 1.6m 1.7m	6.9m[2] 4.3m 0.7m
Number of farms:	4,300	135,300[2]
Average size (ha):	382	32.3
Total value of agricultural output: Tasmania, at "farm-gate prices" Ireland, at "producer prices"	€514m[3]	€4,962m[4]
Land values, €/ha	€1,500-€24,000	€16,230
Dairying: Average herd size Gross output at farm gate/producer prices % Agricultural Output	275 €160m 21%	49 €1,332m 27%
Beef: Cattle no's ('000s) Gross output at farm gate/producer prices % Agricultural Output	450[1]	6,200 €1,403m 28%
Sheep: Total sheep ('000s) Gross output at farm gate/producer prices % Agricultural Output	3,200 Wool €46m Wool 9%	4,260 €192m 4%
Total livestock slaughterings: Gross output at farm gate prices % Agricultural Output	€122m 24%	
Cereals: Area ('000 ha) Gross output at farm gate/producer prices % Agricultural Output	23 €10m 2%	276 €125m 3%
Potatoes: Area ('000 ha) Gross output at farm gate/producer prices % Agricultural Output	9 €55m[3] 11%	12 €166m[5] 3%
Horticulture (fresh fruit & vegetables): Gross output, farm gate/producer prices (€m) % Agricultural Output	€48m 9%	€219m 4%

[1] Rural Land Use Trends in Tasmania, 2003. November 2003. Davey & Maynard Agricultural Consulting
[2] Fact Sheet on Irish Agriculture, October 2006. Economics and Planning Division, Department of Agriculture and Food.
[3] The Contribution of Agriculture to the Tasmanian Economy. September 2005. Report prepared by Davey and Maynard for the Tasmanian Agricultural Productivity Group and Tasmanian Farmers & Graziers Association.
[4] Fact Sheet on Irish Agriculture, October 2006. Economics and Planning Division, Department of Agriculture and Food.
[5] Includes other root crops such as sugar beet

Financial assistance from public funds is much lower in Tasmania than in Ireland; around €100m compared with €3,259m[6]. Public funding is proportionally much greater in Ireland than in Tasmania, though it is not proposed to discuss that issue further in this paper.
Agriculture in Ireland is the basis of the rural economies; this is also the case in Tasmania. Agriculture provides the funds necessary to sustain the rural environment and the rural communities, with associated benefits to tourism in particular. There is little secondary industry in the rural areas of Ireland and Tasmania, apart from some mining, forestry and fishing in several areas of Tasmania, and fishing in Ireland.

The main agricultural industries and their current status, trends, challenges and proposed responses are discussed below.

Dairy Industry

Dairying is a very important agricultural industry in Ireland and Tasmania. Both are strongly dependent on export markets, where they are global competitors.

Dairying In Ireland

The Irish dairy industry is primarily based on grass feeding because of its mild climate, giving it some cost advantages compared with other major EU producing countries. However, the average herd size is relatively low 46 in 2001, although it has increased from an average of 24 in 1991[7] .

There is widespread concern about the future viability of dairy farming as costs of production continue to increase, and prices are static or falling, and there are major restrictions to increasing scale and increasing production.

A recent analysis determined that the target level of profit for a family dairy farm needs to be around €55,000[8]. One option for meeting this target is production against a quota of 550,000 litres at 10 cents per litre profit. This will require a herd of approximately 90 milkers (double the current average herd size).

The conclusion is that Irish dairy farmers will need to increase efficiency, as well as the scale of the dairy operation. Opportunities for increasing scale are constrained due to land ownership and uneconomic land prices, although there is scope for the use of leased land, share farming, etc.

In Ireland there is also a recognition that the processing industry will need to develop value added products, though that will not yield results quickly and will be costly[9]. It will also need to rationalise, as the existing processors are significantly smaller than the main competitors.

Dairying In Tasmania

The Tasmanian dairy industry is based on grazing of rain-fed perennial pastures (plus some grain feeding and irrigation), and on the production of bulk commodities. Production costs are amongst the lowest in the world (comparable with New Zealand).

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[6] Fact Sheet on Irish Agriculture, October 2006. Economics and Planning Division, Department of Agriculture and Food.
7 Promar International. nd. Strategic Development Plan for the Irish Dairy Processing Sector.
8 Ramsbottom, G. 2006. Case studies presentation.
9 Tyrrell, J. n.d. ICOS Vision for the Irish Dairy Industry.

Dairy farm numbers have continued to fall, but production has increased from around 350 million litres to over 600 m litres. Real farm-gate prices have fluctuated around €2.30/kg Milk Solids over the last 15 years, and terms of trade are expected to decline into the future[10].

The longer term outlook is for modest growth in Tasmania due to high levels of producer confidence and interest from external investors in dairy conversions (converting extensive grazing and cropping properties to dairying). Consolidation of farms into larger units will continue; "the success of the industry is far more dependent on Tasmania's dairy herd size than it is on the number of farms"[11]. The key issue for the dairy industry is the continuing pressure on terms of trade. Dairy farmers will respond by increasing herd sizes from currently 275 cows to over 500 cows in the next decade. Herds in excess of 1,000 cows will become more common.

Around 60% of the milk is processed in one plant, but there is still excess processing capacity in the industry. There will be an on-going need to take up this capacity so that processing efficiency can be maximised.

Additional training facilities for all those in the industry will be necessary for productivity to continue to increase, and it will be important to find ways to retain skilled professionals.

The future of the dairy industry looks strong; it is the only agricultural industry currently attracting investment funds (outside Managed Investment Schemes that are driven by taxation advantages).

Beef Cattle

Irish Beef Industry

The beef cattle industry in Ireland is slightly larger than the dairy industry and is the largest single industry[12]. In 2002 1.5 million cattle were slaughtered. The government has been trying (unsuccessfully) to rationalise the processing industry as there is over-capacity with 42 EU approved plants in 2002. The McKinsey report envisaged a cut of 25% in overall capacity, but with falling numbers of cattle a larger cut may be needed to have a real impact on future costs and profitability[13]. However, farmers view the reduction in processing plants as a threat to competition in the market.

The Agrifood 2010 Committee[14] predicts greater competition in export markets, and this will require producers to lower their costs of production, provide better quality cattle for slaughter, and processors to be more efficient.

Tasmanian Beef Industry

Beef production in Tasmania is mostly conducted as a "sideline" to other enterprises. There is only one significant feedlot, and that produces premium quality beef specifically for Japanese markets. There are four main processing plants (with around 200,000 cattle slaughtered each year), and a number of live cattle are transported to the Mainland of Australia for fattening and processing.

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10 Doonan, B. 2006. Tasmanian Agriculture in 10 years Time Confronting the Challenges. Impact on Local Industry – Dairy. AIAST Symposium, July 2006

[11] Doonan, B. 2006. Tasmanian Agriculture in 10 years Time Confronting the Challenges. Impact on Local Industry – Dairy. AIAST Symposium, July 2006

[12] Fact Sheet on Irish Agriculture, October 2006. Economics and Planning Division, Department of Agriculture and Food

[13] Irish Examiner, Aug. 27, 2002. http://archives.tcm.ie/irishexaminer/2002/08/27.story5984893.asp

[14] Agri Food 2010 Committee Executive Summary.
www.agri-vision2015.ie/agrifood/execsumm.htm

There is potential for large increases in productivity (kilograms of beef produced per hectare) by improved pasture and grazing management. Grubb[15] predicts that there will be greater alignment between producers and processors through the take-up of forward contracts, and probably consolidation of processing facilities to one export abattoir and possibly one small domestic processor. Development of a branding strategy to promote Tasmanian product is expected to sustain demand within Australia.

Sheep Meat and Wool

Ireland

The sheep industry in Ireland is mainly for meat production. This industry is a minor contributor to Total Agricultural Output and is similar to pigs, cereals and root crops (including potatoes).

Tasmania.

The Tasmanian sheep industry has equal emphasis on meat and wool production. However, there is a gradual shift from dedicated wool flocks to cross-bred breeds that produce larger and better quality lamb carcasses.

Lamb prices have been buoyant since 2001 based on export demand, and have been in the range €1.80 to €2.40 per kilogram carcass weight.

There is scope for branding and improved marketing. Like the beef industry, the lamb industry is relatively fragmented with little forward contracting, and there is developing interest in lamb feed-lotting, although the local price of feed grains is higher than on the Australian mainland.

Tasmania produces around 4% of Australia's wool clip, and wool represents around 17% of the total value of Tasmanian Agricultural production. It is generally of better quality (less contamination and lower fibre diameter) than wool from the Australian Mainland.

The future for wool production in Tasmania appears to be in fine apparel wool for specialist consumer products and markets, with the wool marketed as a branded niche market fibre. Sheep producing this wool will generally be grazed on "low-input" pastures in the drier areas of the State. Productivity gains are possible through improved pasture and grazing management, and genetic improvements.

Other Enterprises

Pigs and poultry are relatively small industries in both Ireland and Tasmania, although the pig industry contributes 5.8% of the total value of agricultural production in Ireland.

Forages are extensively produced in Ireland for sale and use for animal production. Although historically famous for potato production, the industry currently accounts for only 3.3% of agricultural output.

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[15]. Grubb, B. Tasmanian Agriculture in 10 years Time Confronting the Challenges. Impact on Local Industry – Meat. AIAST Symposium, July 2006

Vegetable production for processing is relatively much more important in Tasmania, and accounts for around 18% of the Gross Value of Agricultural Output, with potatoes as the most important crop.

Prices paid by processors have not kept pace with inflation while costs of production have risen and the outlook is not encouraging. Imports of frozen vegetables from overseas countries (particularly China and New Zealand) are a major challenge. A recent assessment of Chinese agriculture[16] concluded that Australia's land-intensive farm commodities such as beef, sheep meats, wool, dairy and some crop sectors will experience growing demand from China. Conversely, China's labour-intensive agricultural commodities such as horticulture, intensive livestock and vegetable production appear likely to expand, and will provide increasing competition.

Vegetable production properties are generally diversified, with small scales of operation and this leads to high production costs. While there is theoretically opportunity for increased efficiency from increasing the scales of operation, the "high" price of rural land is a major impediment.

Tasmanian is the world's largest producer of licit poppies, producing 40%[17] of the world market for pharmaceutical alkaloids (particularly codeine and thebaine).

Plantings of stone fruits (particularly apricots and cherries) and vines for wine production are expanding in Tasmania. The areas are currently small, but prospects for growth are good.

The Irish Government has a program to assist the development of the horticulture sector by grants for capital expenditure in specialised plant and equipment in commercial horticulture. The scheme aims to promote diversification of on-farm activities, improve the quality of products, facilitate environmental friendly practices and improve working conditions.

Discussion

Farm Viability

A high proportion of farms in Tasmania are relatively small. In 2004-05 almost 65% of farms in Tasmania had a total value of agricultural output of less than €30,000, and in total these farms produce only 6% of Tasmania's value of agricultural output[18]. These smaller farms are generally reliant on off-farm income to support their operations[19].

The position in Ireland is similar. Of 141,000 Irish farmers, 42% are estimated to be part-time. By 2015 it is forecast that there will be 105,000 farmers, of which only 40,000 will be viable (not dependent on off-farm income). There were 28,000 dairy farmers in 2001; this is forecast to fall to 14,000 by 2010. However, only 3,000 farmers are now over the milk quota 70,000 gallon minimum threshold for future viability[20].

[16] "China – emerging opportunity or emerging threat"". Australian Farm Policy Journal, Vol. 4, No.1. February Quarter 2007.
[17] Rice, K. Tasmanian Agriculture in 10 years Time - Confronting the Challenges. Impact on Local Industry – Poppies. AIAST Symposium, July 2006
[18] ABARE Regional Outlook Conference, July 2006. Financial performance of Tasmanian farms.
[19] AgriVision 2015. Report of the AgriVision 2015 Committee.
[20] AgriVision 2015. Report of the AgriVision 2015 Committee.

Declining Terms Of Trade

The cost: price squeeze is apparent in Ireland in the dairy and beef industries, and in Tasmania in the meat, wool and processed vegetable industries. The conventional response is to increase productivity, and for producers to attempt to collectively bargain for higher prices. Productivity, particularly in the dairy industry, has increased; improvements in the meat, wool and processed vegetable industries have been less impressive in Tasmania.

An avenue that is commonly recognised is the need for producers to increase the scale of their production. This is occurring in the dairy industry in Tasmania, and is being pursued in Ireland. It has occurred to some extent in Tasmania in the processed vegetable industry with some shift from parts of the State where properties are relatively small and have highly productive soils, to other parts where the soils are not as good for intensive production (and yields per hectare are lower) but farms are much larger.

Aggregation of land titles to provide larger operating areas for the major agricultural industries would be highly desirable, but this is known to be difficult in both Ireland and Tasmania. Cultures are such that land ownership carries a number of social values in addition to the economic use of the land as a business resource. There is certainly pressure in the EU for farmers to increase scale, either by farmers sharing assets or by merging farms into larger units[21]. Many farmers in Ireland rent or lease farm land. There is potential for these arrangements to increase significantly in Tasmania.

Leasing, joint ventures and other types of business arrangements would help farm businesses increase in scale. Although these options are often recommended, uptake of these potential arrangements is disappointingly slow. Conservatism and the increasing average age of farmers has impeded change.

There is also potential for producers to work together, and with others in the supply chains, to improve efficiency and assist viability in all parts of the chain.

Competition For Land

Demand for land for "rural living" in Tasmania and Ireland has led in recent years to escalation in land prices to levels that make purchase of land uneconomic for agricultural use. This demand is most evident in proximity to metropolitan and rural centres, transport lanes and the coast. The result is that farmers under financial pressures wish to subdivide their holdings and sell smaller parcels of land to maximise sale returns. Where this occurs land values escalate beyond prices that are economic for farming uses. In Tasmania a State Government policy prohibits the conversion of the best quality land from agricultural uses.

Part-Time Farmers

Owners of smaller holdings are more likely to be "part-time" farmers, earning a significant proportion of their income off-farm; multiple sources of income are increasingly apparent in the farming sector. These "part-timers" are unable to be efficient low-cost producers, so production of commodities is unattractive for financial and personal reasons, and there is commonly a desire to produce niche or valued added produce, yet these farm owners often lack technical and marketing skills for such production. At least in Tasmania, expansion of niche market production is constrained by a lack of marketing entrepreneurs.

[21] Marsh, J. 2005. The Implications of Common Agricultural Policy Reform for Farmers in Europe. Farm Policy Journal, Vol 2. No. 2.

It is recognised in Ireland that farming activity will increasingly be undertaken as a part-time activity[22], and extension activities deliberately target these farmers.

Marketing

In both Tasmania and Ireland the need to differentiate commodity products is recognised. The Tasmanian government has attempted to develop a Tasmanian brand that can be applied to any Tasmanian produced product.

Similar plans have been recommended in Ireland; the Agri Vision committee recommends "mechanisms be put in place to encourage local and regional branding opportunities"[23].

There is a recognition in Ireland of the close links between agriculture and tourism. Encouraging speciality local producers is expected to add value to the Irish tourist industry, and this is being aided by special labelling that indicates the origin of the food products. This direction is also being followed in Tasmania.

Community Demands

Markets for Irish and Tasmanian produce are increasingly demanding evidence of "best practice" environmental management and "ethical" production systems. This has resulted in the development of Environmental Management Systems (EMS), and the offer of financial incentives in Ireland for land management that meets specified environmental outcomes. Some incentives are also available in Tasmania, for example for covenanting areas of native vegetation that will be preserved in perpetuity.

The uptake of EMS has been limited. Farmers are generally averse to meeting the documentation requirements, and the market access and financial benefits of their implementation have been unconvincing. However, there are emerging markets for "environmental services"; we should be able to create farm income by providing these services. In Tasmania there is interest in planting trees for carbon sequestration; other opportunities need to be developed.

Farmers generally find the increasing community expectations frustrating, financially unrewarding, and an infringement on their rights. However, avoiding the expectations does not appear feasible.

Availability of Skilled and Casual Labour

Wages paid to workers in agriculture are generally lower than in other industries, and the relatively low returns to capital discourage the children of farm owners from taking over the family farm. In addition, well motivated young people are less attracted to farming as a profession because the capital required to purchase a farm of their own is generally not achievable. The general result is a shortage of well trained and skilled farm managers. There is also a shortage of casuals particularly for harvesting operations in the horticulture industry in Tasmania, and this could constrain growth of these industries.

Other Opportunities

Learning in all forms is a key ingredient to facilitating change. Yet our aging and conservative farmers have generally not embraced on-going training. We need to encourage a positive attitude to on-going education, particularly in strategic planning to enhance creativity.

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[22] AgriVision 2015. Report of the AgriVision 2015 Committee.
[23] AgriVision 2015. Report of the AgriVision 2015 Committee

If talented young people are to be attracted to agriculture, we need to pay more attention to image development, family teamwork and business succession, and we need to offer whole-of-supply-chain employment opportunities to young people, not just present agriculture as a production business.

Island communities tend to be conservative and lack creativity. We need to work with others (such as Nova Scotia, Canada) to collectively address common issues and develop solutions.

Conclusions

The difficulties and potential solutions for agriculture are similar in both Ireland and Tasmania, and both are moving in similar directions to sustain the viability of farming and rural communities.

It seems likely there will be a declining trend in the numbers of farmers and farm holdings in both Tasmania and Ireland, and in Ireland at least declining production[24]. Clerica (2005) concludes that in the EU agricultural sector "only efficient farms and niche product farmers will survive"[25]. This conclusion appears equally applicable to Tasmania.

Efficiency can be increased through improving the scale of farming enterprises, and in the processing sectors. This is constrained by conservative approaches to land ownership and business management; moves to establish more innovative business structures such as joint ventures, leasing, share-farming and cooperatives should be supported and used as extension models.

Growth in the farming sectors will be aided by increasing the value of products through the development and marketing of "niche" products, rather than increased production. Diversification and intensification of production will increase, and this needs to be encouraged. This will require greater emphasis on marketing, and efforts are being made in Tasmania and Ireland to develop branded products. There is also potential to integrate the marketing of niche agricultural products with tourism.

Farmers are becoming less dependent on farm income; the number of part-time farmers is increasing and the reliance on off-farm income is increasing. This trend is in part driven by the demand for "rural living", and in part by the cost: price squeeze. Nevertheless, public policies should recognise the change, and ensure that these part-time farmers are helped to maximise the productivity of their land resource.

The farming sectors have not been competitive in retaining labour resources; cost pressures have restricted opportunities for the sector to offer attractive wages and conditions. Farm managers are improving the efficiency of production, and increasing output per labour unit. However, it is being recognised that due to relatively high labour costs in Ireland and Tasmania, those industries that continue to require high labour inputs are likely to become even less competitive on world markets. There will be opportunities in the horticulture sectors to better manage and integrate casual labour, for example to attract "back-packers" to fruit picking. The key will be to better organise travel and accommodation to meet the requirements of transient workers.

Increasing community demands for the landscape and rural communities to be managed for social and environmental outcomes are placing additional stresses on farmers, and a number of Environmental Management Systems are being developed and promoted. However, at this stage acceptance by many

[24] Clerica, F. 2005. 'Balancing" Interest and Reforming the Common Agricultural Policy. Farm Policy Journal. Vol 2. No. 2 Pages 33-39.
[25] Clerica, F. 2005. 'Balancing" Interest and Reforming the Common Agricultural Policy. Farm Policy Journal. Vol 2. No. 2 Pages 33-39.

farmers is unattractive because the cost and diversity of schemes and because the benefits are not demonstrated. Simplification and integration of schemes will facilitate their adoption.

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