

Industry feature: Wheat and barley 2011 variety guides now available

Wheat and barley 2011 variety guides for Queensland's winter cereal growers can now be accessed online. They are also available in print from DEEDI business support centres.

DEEDI senior research scientist John Sheppard said each variety guide was a long-established one-stop information source produced annually by DEEDI and the Grains Research and Development Corporation.

Mr Sheppard said the variety guides provided growers with the most up-to-date data on the maturity, disease reaction, yield and quality assessments for wheat and barley varieties relevant to southern Queensland, northern New South Wales and Central Queensland cropping regions.

'There is an absolute need for all growers to get their retained seed stock for the 2011 winter cereal planting season tested to ensure it has good germination and vigour', Mr Sheppard said.

'Extremely wet 2010 winter crop harvesting conditions may have resulted in seed weather damage which is not visibly obvious and, irrespective of the varietal selection, there is a real risk of poor crop establishment.

'There are good subsoil moisture levels in the lead-up to planting, and growers need to ensure their soil nutrient levels are adequate to allow the selected wheat and barley varieties to achieve potential yields.'

Mr Sheppard said that if wheat growers were unsure of a paddock's crown rot disease history or its root-lesion nematode status, tests should be progressed as soon as possible.

Growers should also familiarise themselves with the potential herbicide reactions that can have a negative impact on overall crop yield prospects. These are listed in the guides.

DEEDI principal plant pathologist Greg Platz reported that several barley varieties tested had shown reasonable resilience to rust infection during the 2010 season.

'This will give barley growers a degree of confidence in selecting rust-resistant varieties', Mr Platz said.

'Growers should avoid sowing barley on barley, as the high levels of stubble from the 2010 season are likely to carry high levels of inoculum into this year's crop.

'If sowing a variety that is very susceptible to leaf rust, growers should budget for two foliar fungicide sprays, which work best as protectants', he said.

'The malting barley Commander did quite well last season despite enormous stress. This variety will lodge, so it is not suited to high-nutritional situations and it is not recommended for Central Queensland.'

Source: DEEDI media release, 10 May 2011



Fisheries

The total GVP of Queensland's fisheries for 2011–12 is forecast at \$448 million, which is 5 per cent greater than last year but 2 per cent lower than the 2009–10 estimate. This includes a forecast of \$284 million for commercial fishing (9 per cent higher than 2010–11) and \$91 million for aquaculture (3 per cent below 2010–11). Recreational fishing estimates continue to be included in this year's forecast, with an estimated commercial value equivalent of \$73 million. This estimate has not changed from the previous year.

Likely impacts (overall)

At the time of writing, the Australian dollar remained above parity with the United States dollar. The effect of this will be the same as last year, with reduced exports of products such as prawns and increased likelihood of import substitution. This will have the flow-on effect of lowering the price offered to seafood producers generally. The net effect will cause prices to hold at present levels, or even decline for the majority of species.

The impacts of two cyclones in northern Queensland (Yasi and Anthony) will have both short-term and long-term effects on fisheries throughout the state. In addition, the floods in Central Queensland and South East Queensland in January 2011 will have significant consequences.

Apart from the immediate effects (such as the destruction of fishing vessels and infrastructure), there were modifications to known fishing grounds (because of flood debris in the inshore areas and run-off both adjacent to the shore and further offshore) and modifications to reef areas (because of cyclonic wave effects). These factors will combine to affect the levels of fisheries production in both the short term and the long term. For some species, there may be enhanced production in the short term, but for others production will be constrained over the next few years.

Confidence in the commercial fisheries sector continues to wane primarily because of the steady reduction in real prices being offered for the product harvested. This is most likely due to the effect of a strong Australian dollar and an increase in operating costs in the fisheries. Additionally, the availability of labour for fishing vessels is reduced because of competition from the high pay levels being offered to people working in the resources sector.

The declining terms of trade for fishing businesses, when combined with often difficult and complex access and management arrangements in most fisheries, appears to make life difficult for many sectors in the commercial fishing industry. This is contributing to a lack of confidence about the future for those involved.

The wild-caught sector of Queensland fisheries includes:

- commercial fishing (Queensland-managed and managed by other agencies in Queensland waters)
- recreational fishing and its subset of charter fishing.

Commercial fishing

The GVP of the Queensland-based commercial sector in 2010–11 is forecast to be about \$284 million, a 9 per cent increase from the previous year. This increase is essentially due to the spectacularly good harvest of prawns from the Gulf of Carpentaria in 2011.

Queensland-managed fisheries are forecast to have a GVP of about \$203 million in 2011–12, slightly lower than in 2010–11. The GVP of Commonwealth-managed fisheries in Queensland waters is forecast at \$81 million.

The total value of the commercial fishing value chain (including input suppliers, processors, wholesalers and retailers) is estimated to be around \$460 million. The strong Australian dollar creates opportunities for overseas competitors to expand into overseas markets supplied by Australian producers (such as live fish, spanner crabs and frozen prawns) and opportunities to offer very competitive prices for finfish, prawns and other fish products for import into Australia. This competition reduces prices offered to domestic fishers and forces processors to present the Australian product in a form that is convenient for the consumer.



Crustaceans

Prawns and bugs

GVP from prawns and Moreton Bay bugs from Queensland waters in 2011–12 is forecast to be about \$119 million, assuming prices remain steady. Overall prices being offered for the various prawn species have not changed in the last few years. An excellent prawn harvest in the Gulf of Carpentaria, as well as the base price provided by prawn imports into Australia and lower returns for exports due to a higher Australian dollar, have limited the potential for an increase in prawn prices being offered to fishers.

The banana prawn harvest in the Gulf of Carpentaria (4000 tonnes with a GVP of about \$30 million) was one of the best on record and was well above what can typically be expected. It is anticipated that next year prawn production will be above this level.

The Queensland-managed trawl fishery stretches from Cape York to the New South Wales border. Prawns make up about 80 per cent of the total trawl harvest by weight and GVP.

Prawn harvest on the east coast of Queensland continues a general overall decline. During 2010–11, the king prawn harvest declined by about one-quarter to about 2800 tonnes, while the banana prawn harvest increased by about one-fifth to about 1000 tonnes.

The prawn harvest for 2011–12 is estimated at 6300 tonnes with a GVP of about \$68 million. The otter trawl sector harvests are expected to be about 5900 tonnes and the beam trawlers harvest about 400 tonnes.

The Moreton Bay bug harvest, which is incidental to both the prawn and scallop targeted catch, is expected to be about 400 tonnes with a GVP of about \$10 million.

It is estimated that the prawn harvest will stabilise between 5500 tonnes and 7000 tonnes over the next few years. Boat numbers were thought to have stabilised at about 330 active otter trawlers and 80 beam trawlers. However, there appears to be a steady continuing decline of fishing businesses that are prepared to remain active in the otter trawl fishery, given the current economic circumstances. For those remaining active in the trawl fishery, mean days fished per boat appears to have increased to 115 days, while the mean daily prawn catch rate appears to be also increasing.

Crabs

The GVP for the crab harvest is expected to be about \$28 million in 2011–12, as crab prices appear unlikely to increase significantly and the harvest is expected to decline slightly over time with a reduction in the number of fishing operations involved.

The GVP of the commercial harvest of mud crab and blue swimmer crab in 2011–12 is expected to decline slightly due to a reduction in the blue swimmer crab harvest, although the mud crab harvest received a boost from the high rainfall over summer. It is anticipated that the mud crab harvest will benefit from this rainfall in the next year.

The decline in the number of boats and days fishing for blue swimmer crabs continues, as does the mean daily harvest rate. Concern has been expressed about the performance of this crab sector and it is currently under review. Effort in the mud crab sector has declined at a lesser rate and not as many concerns have been expressed for this species.

The spanner crab fishery is quota-managed. It is expected to fill about 1200 tonnes of the quota in 2010–11, slightly less than the previous year. The current GVP for this sector is about \$5 million. Most of Queensland's spanner crabs are exported. This fishery produces within the available quota, driven by export prices. The appreciation of the Australian dollar is expected to only have a marginal impact on the price being offered to fishers.

Tropical rock lobster

This Queensland-managed dive fishery operates mainly on the eastern side of Cape York and does not include the Torres Strait. It typically produces between 200 tonnes and 250 tonnes of tropical rock lobster and has a GVP of about \$8 million.

The appreciation of the Australian dollar will have a small effect on this type of fishery. Its GVP in 2011–12 is expected to remain at about the same level.



Molluscs

Even with some changes in the management of the scallop fishery, it is anticipated that the GVP will be about \$9 million in 2011–12. The harvest is expected to be about 600 tonnes of scallop meat.

As with the other sectors, scallop imports into Australia are holding down the price being offered to fishers. The high Australian dollar has also affected the level of scallop export prices.

Finfish

The Queensland-managed finfish sector is anticipated to have a GVP of about \$82 million in 2011–12. This is slightly less than the previous year.

Line-caught species

There are three parts to the line fishery managed by Queensland:

- Gulf of Carpentaria
- Great Barrier Reef Marine Park area (reef line fishery)
- southern area (rocky reef fishery).

The line fisheries of Queensland have an estimated GVP for 2011–12 of about \$46 million and an estimated harvest of 3300 tonnes. The reef line fishery provides about 90 per cent of the GVP and 75 per cent of the harvest weight. Compared to the other sectors, the reef line harvest is expected to at least maintain its present level of harvest and GVP.

The species taken within the coral reef line sector are quota-managed. The main focus in this fishery is coral trout. Most of Queensland's coral trout harvest is exported, with live fish trade the main focus. In 2010–11, only about 70 per cent of the available coral trout quota was used. This is primarily due to the prices being offered as well as the effects of the cyclones on availability of this fish at the time of the major market demand (Christmas and Chinese New Year). Compared to other reef species, coral trout have a very high value (especially as live fish), and for them fishers receive 7–9 times the price of other species harvested. With the current level of the Australian dollar compared to other currencies, it is unlikely that there will be an increase in the price offered to fishers for reef line species.

Harvests of other reef species (such as Spanish mackerel, red-throat emperor and fish grouped in the 'other reef species' category) are more seriously affected by economic and other factors currently operating in the reef line sector. These species are almost completely targeted for the domestic market.

Given the prices currently being offered, the likelihood of filling these quotas in 2010–11 is low. Typically, the level of harvest is about one-third of the available quota. Fishers report that fish are available for harvest whenever prices improve.

Net-caught species

In 2011–12, production from the Queensland net fishery is expected to be about 7900 tonnes and GVP about \$38 million. It is not anticipated that the prices being offered for wild-caught Queensland products will increase. This is because of the competition from imported products and from skilfully marketed Australian products such as Tasmanian salmon. As most of Queensland's net-caught harvest is destined for the local and wider Australian market, it is unlikely that prices offered to fishers will increase.

The Gulf of Carpentaria net fishery has had a good start to the season with very high levels of barramundi catch being reported. Also, on the east coast, barramundi harvest is the highest it has been for a few years. It is anticipated that there will be a carryover effect into the 2011–12 year.

Mullet harvest continues to decline. The primary cause is that the price being offered for winter fish with their roe has collapsed—other countries now supply the markets at a lower price.

As stated previously, the reduction in harvest of net-caught species cannot be interpreted as a decline in fish stocks. Recent studies indicate that, from a biological perspective, most of the species harvested by net fishers are in robust health and are being harvested at a sustainable level.



Recreational fishing

Recreational fishing and associated leisure activities form an important part of the psyche of the Queensland community. A major study of this recreational and lifestyle activity continues at Fisheries Queensland.

There are two parts to this study:

- a telephone survey of approximately 12 000 people to estimate the proportion of the community that undertake fishing as recreation
- select participants who take part in a diary program where they report on their fishing activity and catch by species and general fishing location.

The information collected will update the estimates made from surveys undertaken some years ago.

In the meantime, recreational fishing estimates continue to be included in this year's forecast with an estimated commercial value equivalent of \$73 million. This is a conservative estimate based on the equivalent price received by commercial fishers for landed fish. Alternative estimation methods would show higher values; for example, expenditure by recreational fishers on their pastime is estimated to exceed \$400 million per year.

Aquaculture

Forecast

The gross value of the Queensland aquaculture industry is forecast to be \$91 million in 2011–12. This is 3 per cent lower than DEEDI's final estimate for 2010–11 and 11 per cent lower than the 2009–10 revised estimate.

Discussion

After a 21 per cent increase in the value of the aquaculture industry in 2009–10, the industry was predicting another strong year in 2010–11. However, generally unfavourable weather conditions, combined with floods and cyclones, have led to a significant reduction in aquaculture production expectations. For 2011–12, the value of the aquaculture industry is expected to decrease by 3 per cent to \$91 million.

Prawn farming is the largest sector of the Queensland aquaculture industry and it is one of the sectors most significantly affected by the adverse summer weather conditions. Prawn production is predicted to decrease by 18 per cent to 4200 tonnes, with a farm-gate value of \$60.5 million.

Barramundi, the second largest sector, has also been impacted by unfavourable weather. Queensland's only marine aquaculture operation was completely destroyed by Cyclone Yasi. Barramundi production is expected to remain static with a farm-gate value of approximately \$21 million.

Freshwater fish production (primarily silver perch, Murray cod and jade perch) is also expected to remain static with an approximate value of \$2.2 million.

Oyster production is expected to decrease, while red claw and the hatchery sectors are expected to increase slightly on the production levels achieved in 2010–11.

Industry feature: State dams full and geared for a good fish

More than 2 million fish have been stocked in Queensland dams over the past year, and with many at full capacity, now's the time for fishers to reap the benefits.

Manager of Recreational Fisheries Development for Fisheries Queensland, Tony Ham, said the state's Stock Impoundment Permit Scheme (SIPS) dams were ready to be fished.

'Nearly \$640 000 worth of fish have been stocked in SIPS dams around the state over the past year', Mr Ham said.

'This, coupled with the fact that most dams are full, means there will be more fish to catch.

'Fishing at a SIPS dam is a sustainable fishing option.

'Seventy-five per cent of funds from the sale of permits go to restocking the dams with native fish species.

'As a keen freshwater fisher myself, I would expect a large number of fishers will be flocking to their closest dam to bring home a big one.'

Mr Ham said all of Queensland's iconic freshwater species were just a 'stone's throw away' from many avid recreational fishers.

'Fishers can catch big barramundi or sooty grunter in North Queensland, or a world-record-sized barra in central or southern Queensland', he said.

'The south-eastern dams are home to some of the best Australian bass fishing in the country, and Murray cod fishing is outstanding in SIPS dams that are fed from the Murray-Darling basin.

'Consistent feeds of golden perch and bass can also be caught in most of the dams, with the odd big silver perch to be caught too.

'With many of the 33 dams around the state now full, fishers currently have access to some of the best impoundment fishing in Australia.'

Mr Ham said, effective today (1 July 2011), there would be a slight increase in the permit fees.

'The new permit fees will be \$7.20 for a weekly permit, \$36.05 for a yearly permit and \$32.40 for a discount yearly permit', he said.

'These are the first increases in the price of permits since the beginning of the scheme and they are in line with the consumer price index.

'The increases have been introduced to continue to replenish fish stocks in the scheme's dams, and to effectively manage and promote the program as a sustainable fishing experience.

'It also means more fish will be stocked into the dams under the new fee structure.

'On current financial figures, it could mean an extra \$20 000 available for stocking native fingerlings each year.'

Source: DEEDI media release, 1 July 2011



Forestry

Forecast

The GVP of the forest-growing sector of the Queensland forest industry for 2011–12 is forecast at \$189 million. This is 1 per cent higher than DEEDI's final estimate for 2010–11 and 11 per cent higher than the revised DEEDI estimate for 2009–10.

DEEDI also estimates that the first-round processing sector of the Queensland forest industry will contribute \$390 million to the Queensland economy in 2011–12. This means that, when combined, the forest-growing and first-stage processing sectors of the Queensland forest industry are forecast to directly contribute \$579 million of economic activity to Queensland in 2011–12.

Analysis and discussion

The forecast negligible growth for activity in the Queensland forest industry in 2011–12 is a reflection of a levelling off of the earlier reported recovery in market conditions for timber products in 2010–11 following the global financial crisis. Future market prospects for the forest industry are very closely linked to activity in the housing and construction sector. Industry sources suggest that about 70 per cent of Queensland's timber is used by the housing construction sector.

The forest industry reported a depressed market for timber and timber products for 2010–11, correlating with a significant drop in the number of annual Queensland housing starts (to 28 000). Housing starts in 2010–11 are almost 40 per cent down from those recorded during the most recent peak in Queensland housing construction activity, in 2007–08 (45 000).

A number of factors have contributed to the recent poor performance of the housing construction sector in Queensland. These include the sharp deterioration in housing affordability since the mid-2000s and the slowing population growth in Queensland in recent times. Flat or falling housing prices in many major population centres over the last twelve months have also reduced investor interest in the housing sector due to expectations of limited capital gains. Tropical cyclones and flooding across many areas of Queensland in late 2010 and early 2011 also created difficulties in accessing building and forest-harvesting sites. In addition, some timber-processing and timber-wholesaling facilities were inundated by floodwaters, and Cyclone Yasi severely damaged much of the North Queensland timber plantation estate.

The most recent housing sector data indicate that housing approvals in Queensland continue to languish. The OESR estimates (from trend data) that 2141 new dwelling units were approved in June 2011. This is 0.4 per cent lower than the May 2011 trend figure.

According to the URS Timber Market Survey, price falls were recorded across nearly all of the structural timber products surveyed for the three months to March 2011 in Queensland. General comments from the survey participants confirmed these price trends, with many participants reporting particularly poor sales in January and February 2011, brought about by a generally weak market and record levels of rainfall hampering building activity.

Timber product demand, particularly in the dominant structural framing product segment of the market, is expected to remain subdued until the end of 2011. Reconstruction of buildings damaged by flood and cyclone is expected to continue to stimulate some increased forest and timber industry activity, although much of the January 2011 flood damage to housing stock in South East Queensland was confined to wall panels and not timber framing. There are some anecdotal reports of a marked pick-up in some timber market segments such as treated roundwood (particularly for repairs to fencing damaged by the recent flooding and truss manufacture) at the start of 2011–12.

The Queensland Government's Queensland Building Boost grant will operate in the period from 1 August 2011 to 31 January 2012. This initiative will provide a much-needed stimulus to the housing construction sector, particularly in the first six months of 2012. Queensland Treasury indicates that the grant is expected to cost \$140 million, equivalent to 14 000 payments of \$10 000. Based on analysis of previous temporary stimulus measures, this is expected to see dwelling starts around 4000 more than they would have been otherwise.

The Queensland Government also has a number of other policy initiatives that will support the housing construction sector. These include the continuation of the First Home Owner Grant (which provides \$7000 for



first homes valued at less than \$750 000), the provision of about \$93 million over five years into the National Rental Affordability Scheme (which will deliver over 11 300 dwellings) and a further injection of \$60 million from the Future Growth Fund in 2011–12 into social housing stock (which will provide nearly 200 homes for vulnerable Queenslanders).

Headwinds for the housing construction sector for the balance of 2011–12 include continuing low buyer confidence due to relatively poor housing affordability, tight credit conditions, rising living costs, and falling or flat housing prices in major markets. On balance, Queensland Treasury is forecasting that overall dwelling investment in Queensland will recover by 5.75 per cent in 2011–12.

Logs from mature softwood plantations account for around 75 per cent of the domestically produced log timber used each year by Queensland's forest industry. Forestry Plantations Queensland Pty Ltd (FPQ) is Queensland's largest plantation timber company. It was purchased in 2010 by Hancock Queensland Plantations, a company managed by the Hancock Timber Resource Group on behalf of institutional investors. FPQ's major asset is a 99-year licence from the Queensland Government to manage, harvest and regrow plantation timber on government-owned lands. FPQ manages 212 000 hectares of hardwood and softwood plantations in a total estate of 343 000 hectares. Each year some two million tonnes of log timber are harvested from FPQ-managed plantations for the production of sawn timber, plywood, reconstituted panels and woodchip products for domestic and international markets.

As outlined above, poor domestic housing construction market conditions negatively impacted on the demand for timber products sourced from FPQ-managed plantations during 2010–11. Furthermore, in early 2011, Cyclone Yasi severely damaged approximately 10 000 hectares of the FPQ-managed mature softwood plantation estate in North Queensland. The damaged log timber from this estate is currently being salvaged for sale to export markets.

Queensland's total hardwood plantation estate covers about 50 000 hectares. In addition to the 13 000 hectares of FPQ-managed hardwood sawlog estate in South East Queensland, there is also a significant pulpwood (short-rotation) plantation estate in Central Queensland. However, much of this estate has underperformed due to a range of factors, including a prolonged drought (2001–2009) and significant disease and pest infestations. One plantation manager announced in 2010 that their estate was so badly affected by the *Kirramyces* leaf blight that much of it would be written off and not replanted. This land is currently for sale. Cyclone Yasi also damaged much of the relatively immature exotic long-rotation hardwood estate being established in North Queensland.

Most of Queensland's hardwood plantation estate has been established over the last 10 years using management investment scheme (MIS) arrangements. MIS is also known as 'managed funds', 'pooled investments' or 'collective investments'. Generally in MIS, a large number of individual investors contribute funds to obtain an interest in the scheme and a 'responsible entity' operates the scheme. Investors do not have day-to-day control over the operation of the scheme.

Financial year 2010–11 was another very difficult period for the MIS sector with investor interest declining further following the highly publicised demise of a number of large entities over recent years. The Australian Agribusiness Group (AAG) reports that the Australian agribusiness MIS sector raised \$36 million in 2010–11. This is a decrease of 65 per cent on the funds raised in 2009–10, and a very long way from the peak of the agribusiness MIS fundraising activity a few years ago, when the sector was raising more than \$1 billion across Australia on an annual basis.

For a number of years, in excess of \$100 million of the funds raised by the MIS sector were allocated to fund the expansion of the hardwood timber plantation estate in Queensland. However, AAG reports that only 1 per cent of funds raised by the agribusiness MIS sector in 2010–11 will be allocated to projects in Queensland. The data do not reveal the nature of the new MIS project/s in Queensland, although DEEDI is not aware of any new Queensland-based MIS projects for timber plantations. In fact, the MIS sector is not expected to generate any further significant growth in the Queensland plantation estate for the foreseeable future.

The Forest Products Group of the Department of Environment and Resource Management (DERM) is responsible for the commercial management of state-owned native forest resources and therefore is a significant supplier of native hardwood and cypress log timber to the Queensland forest industry. DERM reports that 209 000 cubic metres of state-owned native forest log timber was sold in 2010–11, a 10 per cent decline on the result in the previous year.



DERM indicates that sales of native forest log timber are expected to total about 230 000 cubic metres in 2011–12, a 10 per cent increase over the previous year. In addition, there is a significant supply of native forest log timber coming from privately owned forests, and while actual volume information is no longer collected by the Queensland Government, historically this volume has been similar to that harvested from state-owned lands. Anecdotally, there are reports of private growers receiving higher stumpage values for their native log timber, which may stimulate increased landowner interest in harvesting this resource.

A number of supply constraints limit the ability of the Queensland forest and timber industry to respond to further demand growth for timber products, because the majority of log timber available from native forests managed by DERM and Queensland's mature timber plantation estate is committed under current sales agreements. However, some recent processing-sector business closures may have lessened these constraints to some extent.

Using ABS data, DEEDI estimates that Queensland imported \$864 million of forest and timber industry products in 2010–11 to meet domestic demand. Forest and timber industry imports to Queensland have increased by more than \$340 million (not accounting for inflationary impacts) over the last decade.

About two-thirds of Queensland's forest and timber imports (\$574 million) in 2010–11 comprised paper and wooden furniture products. Note that the Queensland forest industry has limited capability in paper-product manufacturing and therefore limited scope to compete with imports. Almost 20 per cent (\$158 million) of Queensland forest and timber product imports comprised sawn timber products; the other 17 per cent (\$142 million) were manufactured and fabricated timber products (plywood, veneers, medium-density fibreboard, engineered wood products, pallets, doors, packing cases, trusses etc.).

Indonesia accounted for about 30 per cent of all sawn timber product imports to Queensland in 2010–11; New Zealand (23 per cent) and Malaysia (10 per cent) were also significant sources. The data also reveal that a number of eastern European countries (such as the Czech Republic and Estonia) have also become significant suppliers of sawn timber products to Queensland.

Over the longer term, new investment in greenfield timber plantations, particularly solid wood plantations, will be needed in Queensland to:

- meet expected demand growth for forest and timber products
- provide increased regional economic diversity
- compete with imported forest and timber products, particularly those produced using illegal or unsustainable harvesting practices
- prevent the substitution of timber products with less environmentally friendly building products such as concrete and steel.


The Centre for International Economics recently estimated that around 10 per cent of Australia's timber imports may be illegally produced.

The Queensland Government is supporting new investment in timber plantation projects in Queensland through the Queensland Timber Plantation Strategy (QTPS), which was developed in consultation with industry and other stakeholders. DEEDI is currently working to implement the high-priority actions in QTPS.

A note about forest industry data sources

Prior to September 2007, *Prospects* used the reported turnover of Australian and New Zealand Standard Industrial Classification (ANZSIC) Group 231 (*Log sawmilling and timber dressing*), as defined and measured by ABS in their survey of manufacturing, as an indicator of the gross value of forest industry activity in Queensland. However, while these data do separately report the forest-growing sector, they exclude some elements of the first-stage processing sector and they also contain some elements of double counting.

Prospects now uses data produced by ABARES in its biannual Australian wood and forest products statistics publication about the value of log production (gross value of logs delivered to the sawmill door or wharf gate) as an estimate of the gross value of the forest-growing sector in Queensland. This, together with estimates of the 'value added' to intermediate inputs of ANZSIC Group 231 and ANZSIC Code 2321 (*Plywood and veneer manufacturing*), provides an overall estimate of Queensland forest industry activity.



Special feature 1: Agricultural productivity

Introduction

According to Mullen et al.⁷, agricultural productivity growth in Australia has been strong relative to other sectors of the economy and to the agricultural sectors of other OECD countries. They demonstrated that between 1952–53 and 2006–07, the growth rate of total factor productivity (TFP) in Australian broadacre agriculture was around 2 per cent a year. This growth, it can be argued, has helped to counter the declining terms of trade and the effects of adverse seasonal conditions such as droughts and floods. In the process, it has enabled Australian primary producers to remain competitive on an international basis over the past 50 years.

What is productivity?

Productivity is a key determinant of economic performance, international competitiveness, economic welfare and living standards. An increase in productivity indicates that inputs are being used more efficiently—that is, fewer inputs are required to produce the same output or, alternatively, additional output is possible from a given level of input use.

Why is productivity growth important?

Productivity improvement is the dominant means by which living standards improve over the long term. Increased output (or decreased input use) leads to lower production costs and higher incomes. Consequently, productivity growth can mean higher returns on capital, higher wages, higher profits and increased tax revenue. It can also lead to lower prices for consumers and may benefit the environment as less land, water and chemicals are required to produce the same amount of output.⁸ As Krugman explained, ‘productivity isn’t everything, but in the long run it is almost everything’.⁹

How is productivity measured?

ABARES productivity estimates for the broadacre industry are derived using an index method similar to that used by official statistical agencies (the ABS and the United States Bureau of Labor Statistics). Two measures of productivity are usually calculated:

- total factor productivity (TFP)
- partial factor productivity (PFP).

TFP is the ratio of the total output to the multiple inputs used in the production process.

PFP is the ratio of the total output to a single input category.

ABARES calculates the total output for the broadacre sector by using a Fisher index across four outputs: crops, livestock, wool and other on-farm outputs. Similarly, total input is calculated across four major inputs: land, labour, capital, and materials and services.¹⁰

⁷ Mullen, JD and Crean, J 2007, *Productivity growth in Australian agriculture: trends, sources, performance*, Australian Farm Institute, Sydney; Nossal, K and Gooday, P 2009, *Raising productivity in Australian agriculture*, ABARE research report, Issues Insights, 9.7, ABARE, Canberra.

⁸ Productivity Commission, 2005.

⁹ Krugman, P 1992, *The age of diminished expectations: US economic policy in the 1980s*, MIT Press, Cambridge.

¹⁰ Gray, E, Sheng, Y, Nossal, K, Oss-Emer, M and Davidson, A 2011, ‘Improving productivity—the incentives for change’, *Australian Commodities*, vol. 18, no. 1, March quarter, ABARES, Canberra, pp. 218–34.



Role of government

According to Nossal and Gooday, there are a number of ways where significant productivity gains can be made. They also see a role for government to assist through investing in public goods and services and setting policies that enable and encourage productivity growth.¹¹

Possible target areas

1. Investing in research and development

There is a well-established link between research and development expenditure and productivity growth.

2. Adopting new innovations

This is closely linked to the first area. Innovation can be facilitated by improving the incentives for and capability of industry to develop and adopt new knowledge and technology. This can be achieved through improvements in access to research results, training and education, communication services and public infrastructure.

3. Reducing regulatory constraints

Some current regulations provide a disincentive for producers to be innovative and change practices in response to market developments.

4. Improving market access

Greater market access provides a strong incentive to lift productivity.

5. Addressing environmental pressures

Climate change, resource depletion and other environmental pressures are posing a major threat to productivity growth. Accelerating the development of low environmental impact and mitigation technologies, and implementing policies to allow environmental objectives to be met at least cost, will create opportunities for simultaneously lifting productivity growth and reducing environmental pressures.

¹¹ Nossal, K and Gooday, P 2009, *Raising productivity in Australian agriculture*, ABARE research report, Issues Insights, 9.7, ABARE, Canberra.



Special feature 2: Queensland lifestyle horticulture

Introduction

Lifestyle horticulture is a large, diverse plant-based industry that is commonly viewed as the ‘non-food’ component of the horticulture industry. Despite this common perception, the production nursery sector of the lifestyle horticulture industry plays an integral role in the supply of seedlings, tube stock and trees for a broad range of food-producing horticultural industries such as fruit, nuts and vegetables.

The lifestyle horticulture industry also produces commodities such as turf, cut flowers and ornamental plants, in addition to offering a range of services. Services include landscape planning, construction and maintenance, wholesaling and retailing activities, and specialised arboriculture and consultancy services.

Industry survey

The OESR in Queensland Treasury was commissioned by DEEDI to carry out a telephone survey of businesses in the Queensland lifestyle horticulture industry in 2008. The OESR interviewed management and owners of businesses from across the production and services segments of the industry. Survey respondents were asked about matters concerning business demographics, turnover, employees, training and topical industry issues. Where appropriate, responses were then weighted to provide quantitative information about particular sectors and the whole industry.

DEEDI released the survey findings in the *Queensland lifestyle horticulture industry survey report, July 2011*.

During the survey, over 5700 businesses were identified as operating in the Queensland lifestyle horticulture industry. Approximately one-quarter of these businesses identified as being in the production segment and the remaining three-quarters as part of the diverse services segment.

Survey results

Sales

The annual total sales of the Queensland lifestyle horticulture industry during 2007–08 was estimated to be \$4.4 billion, with 25 per cent (\$1.1 billion) attributed to the production segment. Nursery production contributed almost 75 per cent of the total production segment sales.

The survey results also revealed that the services segment of the lifestyle horticulture industry is large and diverse, with estimated annual sales valued at approximately \$3.3 billion. The survey results indicate that within the services segment the landscape construction sector has the largest annual sales.

Employment

The lifestyle horticulture industry is a large employer with an estimated 28 000 people directly employed on a full-time equivalent (FTE) basis. This includes both paid and unpaid labour. An estimated 9500 FTEs are employed in the production segment and an estimated 18 500 FTEs work in the services segment.

Clusters

The lifestyle horticulture industry operates in both regional and urban areas across Queensland, with almost two-thirds of survey respondents located in South East Queensland. There are also significant clusters in northern and Far North Queensland (14 per cent), Wide Bay Burnett (8 per cent) and the Darling Downs (7 per cent).



Business type

Survey responses also reveal that the lifestyle horticulture industry is dominated by small businesses. The overwhelming majority of survey respondents (92 per cent) reported that they employ less than 15 FTEs.

The lifestyle horticulture industry is very focused on supplying demand from local markets, with 85 per cent of survey respondents reporting that their total revenue was sourced from within 100 kilometres of their business location.

Trade

The survey results reveal that the cut flower sector is the most export-orientated sector in the lifestyle horticulture industry, with 9 per cent of respondents reporting that they currently export.

Outlook

The survey also investigated respondents' perspectives on the industry's outlook for the next five years. Almost 60 per cent reported a good or very good five-year outlook for the industry following the survey. This was predominately attributed to a forecast for positive market trends through increased demand for lifestyle products and services.

Landscaping businesses overall held a more positive view than other businesses for the outlook of the industry. This could be attributed to increased demand due to urban development and growth initiatives in South East Queensland.



Notes

- Gross value of commodities produced is a measure of economic output.
- Estimates of the gross values of Queensland agricultural production are calculated and published at the state level by the ABS. Presently, ABS publishes estimates for most agricultural commodities twice a year.
- A preliminary estimate for a particular financial year is published approximately 4 months after the end of that year. The second (final) estimate is published approximately 12 months after the preliminary estimate.
- Estimates of the gross value of Queensland's fishery production are available from DEEDI.
- All estimates provided in this publication are in nominal dollar values unless otherwise stated.

Definitions

crops field and horticulture crops

fisheries trawl and non-trawl fishing, and aquaculture

forestry log sawmilling and timber dressing

gross value of commodities produced the value of recorded production at wholesale prices realised in the marketplace (for example, cattle sold for slaughter and sugarcane at the mill)

livestock disposals cattle, sheep, pigs, poultry, kangaroos and other live animals sold for slaughter, plus live exports minus live imports

livestock products eggs, milk, wool and honey

marketplace generally, the metropolitan market in each state and territory (where commodities are consumed locally, or where they become raw materials for a secondary industry); for exports, marketplace prices are generally FOB prices

value added the value of the output produced minus the costs of the intermediate goods