Question: ABARE 01

Division/Agency: Australian Bureau of Agricultural & Resource Economics
Topic: Factors of productive farming
Hansard Page: 27 (27/05/08)

Senator Milne asked:

Senator MILNE—I just want to hear from the department.
………
Mr Glyde—We have been for quite a number of years doing some work that looks at—from our farm survey data—what factors seem to distinguish a more productive farm from a less productive farm. In doing that work, we have found that there are a number of factors. They are things like farm size—the bigger the farm, the more efficient and productive they are—the level of education of the farm manager and operator; access to technologies; access to R&D, as Mr Mortimer mentioned earlier on; access to capital; and the efficiency with which they use water. They are all factors that drive productivity on the farm. We can give you, if you like, the detail of the work we have done on that. In addition to that, Senator—as you have been, I think, pointing out—the efficiency of markets on which the farm sector relies is also very critical to the productivity performance of Australian farms: the efficiency of the transport sector; the efficiency of the other infrastructure at getting product out of this country and overseas; the efficiency with which we allocate water in this country. All of those things will also help improve the productivity, if you like, and the level of production that comes out of Australia as Australian agriculture.

Answer:

Since 2005 ABARE has released two reports that examine specific factors affecting productivity at the farm level. The analysis focuses on the broadacre grains industry and identifies a wide range of productivity drivers, industry scale of operation, operators' working experience and education, farm management practices and natural resource and market conditions.

The relevant reports are:

Alexander, F. and Kokic, P. 2005, *Productivity in the Australian Grains Industry,* ABARE *e*Report 05.3 Prepared for the Grains Research and Development Corporation, Canberra, February.
<http://www.abareconomics.com/publications_html/crops/crops_06/grains_productivity.pdf>

Kokic, P., Davidson, A. and Boero Rodriguez, V. 2006, *Australia's Grains Industry: Factors Influencing Productivity Growth*, ABARE Research Report 06.22 prepared for the Grains Research and Development Corporation, Canberra, November.
<http://www.abareconomics.com/publications_html/crops/crops_05/er05_grain_productivity.pdf>

Question: ABARE 02

Division/Agency: Australian Bureau of Agricultural & Resource Economics
Topic: Oil reserves
Hansard Page: 62 (27/05/08)

Senator Milne asked:

Senator MILNE—Have you ever actually examined in any detail the claim that the Saudis have deliberately overestimated their reserves, that when they reviewed and put out the new data on the reserves in the 1980s that they deliberately inflated those reserves? Have you ever looked at that since the late Mr Bakhtiyari says that is clearly what they did do, and he was on the Iranian oil board or equivalent?
Mr Glyde—I would have to take that one on notice in terms of the fact that personally I have been involved in this for about 18 months. I would need to go back and check whether over the last five, 10 or 15 years we have looked in any great detail at those particular claims.

Answer:

No. The Australian Bureau of Agricultural and Resource Economics relies on the U.S. Geological Survey (USGS) for its estimate of oil reserves. The USGS is a reputable, unbiased and multi disciplinary science organisation that focuses on geology and other areas related to the study of natural resources. In 2000, USGS published an assessment of undiscovered petroleum reserves. This USGS assessment was based on extensive geological studies.

Question: ABARE 03

Division/Agency: Australian Bureau of Agricultural & Resource Economics
Topic: Relationship between the price of fertiliser and oil
Hansard Page: 65 (27/05/08)

Senator Siewert asked:

Senator SIEWERT—Given the high price of oil at the moment, have you prepared or provided any advice to government about the impact that is having on agriculture, in terms of transport costs and input costs? We know there is a very strong relationship between the price of fertiliser and oil. Have you provided advice and what is the nature of that advice?
Mr Glyde—Perhaps I should take this on notice. We have provided some back-of-the-envelope calculations as to what the increase in fuel price might mean in terms of increased costs for the farm sector, for say the livestock or the cropping sector, but that is informal advice within government.
Senator SIEWERT—You have?
Mr Glyde—Yes.
Senator SIEWERT—Are you able to provide that advice?
Mr Glyde—I will have to take that on notice.
Senator Sherry—Just take that on notice.

Answer:

Refer to ABARE 04.

Question: ABARE 04

Division/Agency: Australian Bureau of Agricultural & Resource Economics
Topic: Rising price of fertiliser and its interaction with the cost of oil
Hansard Page: 66 (27/05/08)

Senator Siewert asked:

Senator SIEWERT—Have you done it outside the Senate, and I know I am not allowed to ask that with the committee process—we have been through that a couple of times today—but have you provided that advice before the select committee was established? Had you previously given advice to government about the rising price of fertiliser and its interaction with the cost of oil?
Mr Glyde—I will have to take that on notice. I do not recall the timing when we did that or indeed whether or not we provided advice prior to my time in ABARE. I do not have any briefing on that.
Senator SIEWERT—The point that I am trying to get to is that the price of oil has a significant impact on agriculture and the future of agriculture.
Mr Glyde—Absolutely.
Senator SIEWERT—Going back to the dispute we were having earlier about assumptions, the point very strongly being made was that if the price of oil stays high it will have a devastating ongoing impact on agriculture and we have to rethink the way we carry out agriculture in this country. It is critically important for a whole range of reasons, but this committee is particularly focused on agriculture. What advice are you providing to government to do some long-term thinking around the future of agriculture and its reliance on oil?
Mr Glyde—The only point I would make there is that it is not just Australian farmers that will be feeling the effects of the high global oil prices and higher fertiliser prices.
Senator SIEWERT—Some countries may have done some securing of fuel, which goes back to what Senator Milne was talking about earlier around oil security.
Mr Glyde—They are questions that are probably best answered by the Department of Resources, Energy and Tourism in terms of energy security and what is the best strategy in relation to that.
Senator SIEWERT—I am asking about agriculture and what advice you are providing. What advice are you providing to government?
Mr Glyde—As I said, I will take that on notice just to double-check what we have done.

Answer:

The Australian Bureau of Agricultural and Resource Economics (ABARE) has not given advice to government about the specific issue of the effect of oil prices on fertiliser prices. However, ABARE has provided information on fertiliser prices that draws attention to the importance of higher oil prices in contributing to the rise in global fertiliser prices. This information was contained in a brief given to the Department of Agriculture Fisheries and Forestry in approximately mid-February

2008. That information subsequently formed part of the department's submission to the Select Committee on Agricultural and Related Industries reference on *Pricing and supply arrangements in chemical and fertiliser markets*.

More generally, indexes of fertiliser and other farm input prices for the year ahead are released in ABARE's quarterly publication, *Australian Commodities* (table 2). Estimates of farm expenditures on fertilisers and other farm inputs used in determining ABARE's aggregate farm costs forecasts are provided in the same publication (table 3).

Question: ABARE 05

Division/Agency: Australian Bureau of Agricultural & Resource Economics
Topic: Long Term projections
Hansard Page: 68 (27/05/08)

Senator Allison asked:

Senator ALLISON—If you could explain why Credit Suisse has the projection of $100 long term but yours is almost half that?
Mr Glyde—When you say 'long term', what did they say was long term?
Senator MILNE—They did not put a figure on it.

Answer:

On-line news reports indicate that Credit Suisse projects a long term oil price of US$100 a barrel. We are not able to explain the differences between the Credit Suisse long term oil price forecast and ABARE's long term forecast as we have not been able to obtain access to the report. Hence, we do not have access to the assumptions on which the Credit Suisse forecast is based. The report is a private client report available for purchase only.

Question: ABARE 06

Division/Agency: Australian Bureau of Agricultural & Resource Economics
Topic: Farms and farm sizes
Hansard Page: 69 (27/05/08)

Senator Fielding asked:

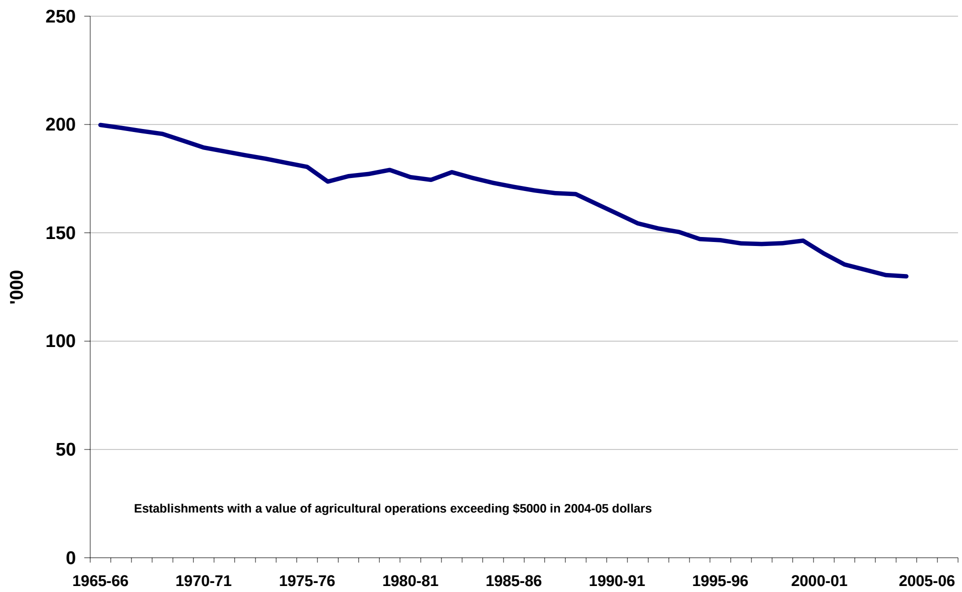
Senator FIELDING—My question goes to some of the ongoing research to do with farms and farm sizes. I have seen some figures about the number of farming businesses or farms in Australia and how that has been dropping over a number of years.
Mr Glyde—Yes.
Senator FIELDING—Could you talk us through that?
Mr Glyde—I do not have the numbers in front of me, but we can provide a chart afterwards, if that would help. The long-term trend has been for there to be a decline in the number of farms but at the same time an increase in the total amount of agricultural production. That essentially is one of the key drivers of productivity in the Australian farm sector which, as you are probably aware, is one of the high achieving sectors as far as productivity goes in the Australian economy. Essentially, as farm size has increased farmers have been able to achieve economies of scale and therefore produce more from the same area of land once bundled together or running in a number of different enterprises.
Senator FIELDING—So the structure is changing. Is the small family farm disappearing? You obviously look at numbers quite a lot; I have seen your reports and research. What is going on?
Mr Glyde—I would have to take on notice the specifics of the farm size. We do have different categories of size.
Senator FIELDING—Is there someone here who would know that data?
Mr Glyde—You are talking about family farms. The vast majority of Australian farms remain as a family owned farm. The distinction I would make is really much more about the size of the operation, the scale of the operation rather than about the ownership structure of the farm that is actually driving the productivity increases and the improvements in efficiency.
Senator FIELDING—Is it true that there has been a 20 per cent decline in the number of farms? Someone is obviously selling up and selling to other farms. Can no-one here give us more of an understanding of what those figures are doing?
Mr Glyde—We can provide you with the percentage declines over any sort of period you would like. But I do not think we can do that on the spot today. I do not think anyone has any briefing with that detail on it, unless someone is prepared to advise me to the contrary.

Answer:

The Australian Bureau of Statistics (ABS) records the number of Agricultural Establishments in Australia. Generally an agricultural establishment is a farm business, although there are some farm businesses that incorporate more than one agricultural establishment. Published ABS data indicate substantial year to year fluctuation in the total number of agricultural establishments because of change in ABS coverage of very small farm units, those with minimal agricultural activity.

Change in the number of Agricultural Establishments between 1965-66 and 2004-05, but removing very small agricultural units with an estimated value of agricultural operations of less than $5000, is presented in figure A. On this basis, the number of agricultural establishments has trended steadily downwards over time at a rate of around 1 per cent a year over the past four decades (figure A).

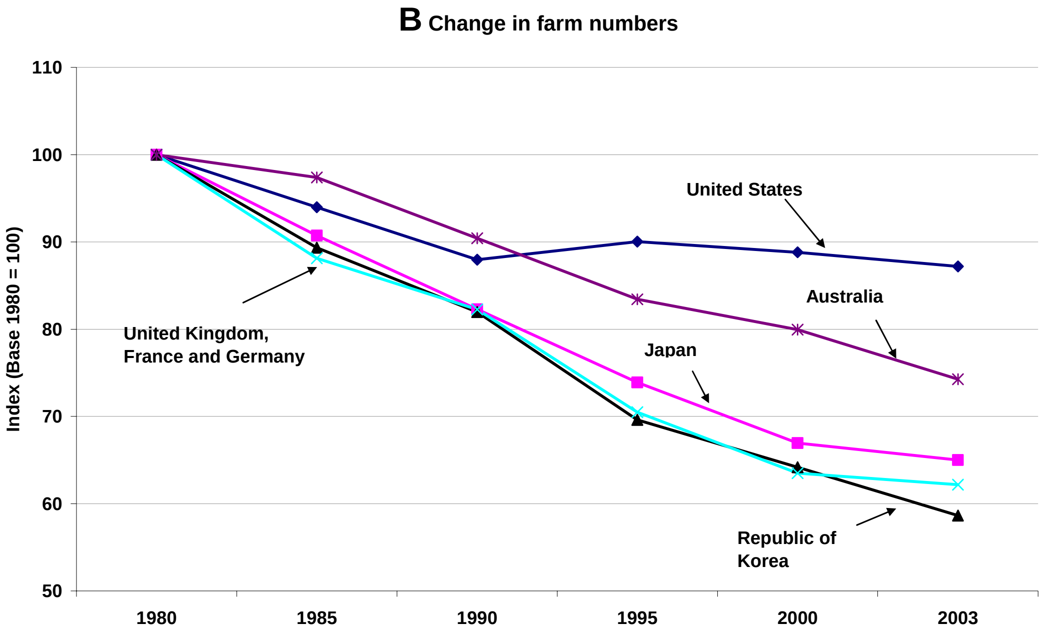
A Number of agricultural establishments, Australia



Australia is not unique in having a reduction in the number of farm businesses over time (figure B). Declines in the number of farm businesses over time is a feature of agriculture in most western economies. As figure B indicates, the percentage decline in the number of farm businesses in Australia has been similar or less than in many other countries, including those with high levels of government support of their agricultural sectors, such as France, Japan and even the United States. It should be noted that the US data contain a change in farm definition from 1990. Without this change, the relative decline in US farm numbers is likely to have been similar to that for Australia.

The majority of Australian farms are family farms. A 1997 Australian Bureau of Agricultural & Resource Economics (ABARE) study concluded that less than 0.5 per cent of Australian farms were, at that time, operated by publicly listed companies and that fewer than 1 per cent of all farms were operated by any form of non-family corporation, institution or co-operative. The available information suggests that the proportion of non-family corporations has probably not increased significantly.

However, the complexity of business structures among larger family owned businesses has probably increased along with the scale of these businesses.



Change in farm numbers in Australia, is really about family farms buying up other family farms to create a larger farm business. Analysis of the characteristics of farms buying and selling land indicates buyers are usually operators of better performing farms and sellers are typically operators of poorer performing farms in terms of the average rate of return generated.

Question: ABARE 07

Division/Agency: Australian Bureau of Agricultural & Resource Economics
Topic: Changes to marketing of export wheat
Hansard Page: 71 (27/05/08)

Senator Nash asked:

Dr O'Connell—It might be useful if Mr Glyde went through some work that ABARE has undertaken. I think some of the issues that you are raising go to the question of whether price premiums are engaged in the single desk or not.
…………
Senator NASH—Could you table the document that you have read from?
Mr Glyde—There are parts of it that I cannot, so I am happy to provide what I have just said.
Senator NASH—Could you do that perhaps by the end of the day?
Mr Glyde—Sure.
Senator FIELDING—What is that document that you are reading from?
Mr Glyde—This is a briefing that I have had for this question.
Dr Sheales—I would add to that that all of that is in what was previously provided to this committee. All of it—plus more.
Senator NASH—A number of members of this committee were not part of the previous hearing.
…………
Senator FIELDING—Could you provide the assumptions behind those notes? They are obviously quite big statements. I would like some background to that. Could you also table the bits that you said you can, the statements you have made, but also—
Senator NASH—Supporting evidence.
Senator FIELDING—what rationale and supporting evidence is behind those?
…………
Mr Glyde—I have been reading from a brief that we had in relation to this question. You are asking me to now go back and document all of the assumptions that led to our making these conclusions and the work we did. I am saying that I do not think that is something I can do this evening.
…………
Senator Sherry—I will take it on notice and I will make a request to the minister for that information, if he agrees to make it available. It would be logical to provide the assumptions before the debate on the legislation. I will ask him to do that.

Answer:

The document is attached.

[ABARE 07 attachment]

Question: ABARE 08

Division/Agency: Australian Bureau of Agricultural & Resource Economics
Topic: Apples
Hansard Page: 72-73 (27/05/08)

Senator Fielding asked:

Senator FIELDING—There is some analysis on the potential economic impacts of apples imported from New Zealand. Are you having a large input into the World Trade Organisation's defence of apple biosecurity? I notice that you have done a fair bit of work in the area of analysis of the potential economic impacts of apples imported from New Zealand.
Mr Glyde—I would have to take some advice on that in terms of the work that may or may not have been done. But we have not played a major role in doing the economic assessments in relation to the IRAs for apples. I do not know if anyone else at the table can be more specific.
Senator FIELDING—I am reading from page 180 of the Department of Agriculture, Fisheries and Forestry annual report 2006-07. Work in 2006–07 included:

… … …

● analyses of the potential economic impacts of apples imported from New Zealand (December 2006)

Mr Glyde—I do not have a copy of the annual report with me. Is that work that ABARE is said to have done?
Senator FIELDING—It is in the ABARE section. It says under the heading 'Biosecurity':
ABARE aims to develop economic frameworks that support cost-effective biosecurity responses. Work in 2006–07 included:

… … …

● analyses of the potential economic impacts of apples imported from New Zealand (December 2006)

Mr Glyde—My recollection was that we were working with Biosecurity Australia in terms of developing a framework for the economic assessment of those, but I would have to take on notice the specifics of what we actually did. I do not have that in my head and I do not have it in front of me in my briefing………
Mr Burns—We will check the exact details of the work that was done, as Mr Glyde said. But my recollection—and I am only going off the top of my head—was that that was to help Biosecurity Australia develop a framework on the estimates of the number of apples that might come into Australia to help them with their risk analysis. Basically, it is a probability exercise.
Senator FIELDING—Could you come back to us on that? That does not sound like the title that is there. I have read this and it sounds important to me.
Mr Burns—When a risk analysis is done, we do not look at the economics of the importation of the product. We look at the economics of the importation of diseases.

To do that you have to make estimates of the volume of apples that are likely to come into Australia. That of course is an economic exercise.
Senator FIELDING—I may have missed it. Could that particular analysis be tabled?
Mr Glyde—We will do our best to find out the specifics of what the analysis was and get back to you with what we had and whether or not we can table it this evening.
……….
Senator HEFFERNAN—This is not the impact if we get an outbreak; this is the impact on the marketplace?
Mr Glyde—As I said, I will have to check. I do not have a personal recollection of the work.
………
Mr Burns—Again, I am only going on recall here, but it is not what would be the likely number of Australian farms that might be affected or anything like that. It is really to help with an estimation of the numbers of apples that might come in.

Answer:

The analysis is attached.

[ABARE 08 attachment]

Question: ABARE 09

Division/Agency: Australian Bureau of Agricultural & Resource Economics
Topic: GM Workshop attendees
Hansard Page: 79-80 (27/05/08)

Senator Nash asked:

Mr Glyde—On the questions of segregation, we have tried to shed some light on that early on in our report. I think it was last year. We did a sample of farmers I think in WA to get a sense of what some of the costs were if you were going forward with the segregated regime so as to try and shed some light on that. It was not the complete picture. There was some criticism about what we did and did not do in that. But it was our attempt to deal with the segregation question.
Senator NASH—Did you talk to the bulk handlers or just the farmers?
Mr Glyde—I am not quite sure who we talked to in relation to that report.
Senator NASH—It is a big issue, if you did not talk to the bulk handlers. Can you take that on notice?
Dr Penm—In April, ABARE held a workshop inviting industry people to discuss the GM issue and also we sent two officers—
Senator NASH—Could you provide the list to the committee, on notice, of who you actually had at that workshop?
Mr Glyde—Yes.
Dr Penm—I missed your question.
Senator NASH—Could you provide a list to the committee of the people who attended that workshop?

Answer:

In consultation with the Rural Policy and Innovation Division of the Department of Agriculture Fisheries and Forestry (DAFF), representatives from industry and State/Commonwealth Government organisations listed in table 1 were invited to attend a one-day workshop held at Australian Bureau of Agricultural & Resource Economics (ABARE) on 15 February 2008. Issues covered at the workshop include the use of GM in livestock feed, consumer acceptance of GM and GM fed livestock products, GM and climate change and other GM issues. Some of the invitees were unable to attend (see bold entries).

Table 1: Invited attendees/organisations to the ABARE Workshop

Colin Peace	Australian Fodder Industry Association
Nicholas Woods/Kay Khoo	CropLife/Bayer Crop Science
Bryan Clark	Grain Growers Association
Phil Clamp	**GrainCorp**
John Spragg	Australian Stockfeed Manufacturers Association
Amanda Reagan	Australian Pork Ltd

Stefan Martin	Australian Pork Ltd
Ray King	**Dairy Australia**
Des Rynehart	Meat & Livestock Australia
Annette Sugden	RIRDC
Jo Thomas	**Australian Food and Grocery Council**
Dougal Gordon	Australian Lot Feeders Association
John de Majnik	GRDC
Natalie Collard	**NFF**
Jason Olsen	Queensland DPI
Ruth Frater	NSW DPI
Rob Sward	Victoria DPI
Klaus Oldbach	SARDI
Steve Jobling	CSIRO - Food Futures
Paul Brent	**FSANZ**
Peter Thygesen	OGTR

In addition to those listed in table 1 there were attendees from DAFF, Bureau of Rural Sciences and ABARE.

On 29 January 2008 two ABARE officers travelled to Sydney to gain information on GM issues, including testing GM presence in segregation. The organisations visited were Graincorp, the Grain Growers Association, the NSW Farmers' Association and the National Measurement Institute.

Question: ABARE 10

Division/Agency: Australian Bureau of Agricultural & Resource Economics
Topic: IAASTD report
Hansard Page: 80 (27/05/08)

Senator Milne asked:

Senator MILNE—This is a report of some 400 scientists from around the world. It has the same sort of standing as the IPCC report has on climate. This has it on future scenarios and challenges in agriculture. It is not just any report. It is a peak report. I would like to know, if you can take it on notice, how it fed into it. Can you also tell me where the research is being done for you and who is doing it on GE? Is it all in house or have you got consultancies with various either industry groups or CRCs? Who is actually doing the work for you?

Answer:

The International Assessment of Agricultural Knowledge, Science and Technology for Development (IAASTD) report, “Synthesis Report of the International Assessment of Agricultural Knowledge, Science and Technology for Development” did not feed into the Australian Bureau of Agricultural and Resource Economics (ABARE) report “Economic impacts of GM crops in Australia”.

All ABARE research on GM issues has been undertaken by in-house ABARE staff members.

Question: ABARE 11

Division/Agency: Australian Bureau of Agricultural & Resource Economics
Topic: Canola minor export destinations
Hansard Page: 81 (27/05/08)

Senator Nash asked:

Senator NASH—What markets is that $600 million worth of canola going into?
Dr Penm—Our major export destinations are Japan, Pakistan and other Asian countries.
Senator NASH—What are those other Asian countries?
Dr Penm—I think they are small countries. Bangladesh, Pakistan and Japan are the major export destinations.
Senator NASH—How many minor export destinations are there?
Dr Penm—I do not have that information with me.
Senator NASH—Could you take that on notice?
Dr Penm—Yes.

Answer:

In 2006-07 canola was exported to the following destinations (numbers are rounded)

Country	Tonnes	Share %
Argentina	8	0.003
Bangladesh	15225	6.408
Belgium	66	0.028
Brazil	105	0.044
China	3230	1.359
Fiji	55	0.023
Germany	0	0.000
India	101	0.043
Indonesia	40	0.017
Iran	167	0.070
Japan	190474	80.165
Malaysia	277	0.117
Nepal	2165	0.911
Netherlands	300	0.126
New Zealand	197	0.083
Pakistan	25000	10.522
Paraguay	84	0.035
Singapore	21	0.009
South Africa	87	0.036
Total	**237603**	**100.000**

Question: ABARE 12

Division/Agency: Australian Bureau of Agricultural & Resource Economics
Topic: GM canola
Hansard Page: 83 (27/05/08)

Senator Nash asked:

Senator NASH—Can I just go back to the export destinations? I am sorry; I do not know which official made the comment that there are no current restrictions on GM canola into those destinations. I am happy for you to take this on notice. Could you provide a list to the committee with that list of the actual destinations of on what basis you are making the assumption that there is no restriction and if it is merely that it simply does not exist, that is absolutely fine, but then have you made the assumption that, if somebody was going to try to export GM canola to those countries, they would then put in a restriction saying, ‘No, we do not want it.’ Given that it is in such fledgling days, when things are in early development, countries do not necessarily think about what they might want to restrict if it is not planned on being brought in yet. That is a very roundabout way of saying that. But if you have got any proof that those countries would be happy to have GM canola could you provide that to the committee?

Answer:

In 2006-07 Australia’s exports of canola amounted to 237.6 thousand tonnes. The main export destination was Japan (190.5 thousand tonnes), accounting for around 80 per cent of total canola exports, with the remaining canola exports being accounted for by Pakistan (25.0 thousand tonnes or 11 per cent of exports), Bangladesh (15.2 thousand tonnes or 6 per cent of exports), China (3.2 thousand tonnes or 1 per cent of exports) and other destinations (3.7 thousand tonnes or 2 per cent of exports). Many importers of Australian canola also import GM canola.

Canada is the world’s leading canola exporter, exporting 5.48 million tonnes in 2006-07. More than 80 per cent of the Canadian canola crop was GM in 2007. Canada does not actively segregate its non GM canola from GM canola and much of its canola exports would be considered to be GM.

In 2006, for example, Canada exported 1982 thousand tonnes of canola to Japan, 664 thousand tonnes of canola to Pakistan, 87 thousand tonnes of canola to Bangladesh, and 543 thousand tonnes to China. None of these countries ban the importation of GM canola.

Question: ABARE 13

Division/Agency: Australian Bureau of Agriculture and Resources Economics
Topic: Dairy incomes in Victorian Goulburn-Murray region
Hansard Page: 87 (27/05/08)

Senator McGauran asked:

Senator McGAURAN—Can you give me the average of the Victorian northern region dairy farmers income?
Dr Penm—I will have to take that on notice.
Senator McGAURAN—Yes.

Answer:

Average farm cash income for northern Victorian dairy farms in 2007-08 is estimated to be $61,000, 41 per cent lower than the average for Victorian dairy farms of $104,000 (which has recently been updated). The Victorian average is higher because of the substantial increases in estimated farm cash income for South Western Victoria and the Gippsland region in 2007-08.

The northern Victorian region is highly dependent on irrigation. Low availability of irrigation water in 2007-08, combined with a continuation of local drought conditions, has resulted in farm expenditure rising, and a larger reduction in milk production than in other regions.

Question: ABARE 14

Division/Agency: Australian Bureau of Agricultural & Resource Economics
Topic: Sarina ethanol plant
Hansard Page: 89 (27/05/08)

Senator Allison asked:

Dr Sheales—I would suggest that every single producer regards this information as commercial-inconfidence to them, but certainly with respect to the amount that is produced, with ethanol from sugar, for example, with the Sarina plant in Queensland I understand the capacity is about 35 million litres a year.
Senator ALLISON—It goes to Japan for consumption. It is high-level ethanol.
Dr Sheales—That is not the information that has been given to me by the company. There is a plant in Yarraville, in Melbourne, which produces high-grade ethanol that goes into pharmaceuticals, industrial users, and I suspect some of that might be exported.
Senator ALLISON—I do not think ethanol from Sarina goes into petrol, not the last time I visited there.
Dr Sheales—I can only go with what the company has told me, and I know that they have told plenty of other people this. That is all I can go on.
Senator IAN MACDONALD—Whilst I hate to agree with Senator Allison, I thought that a fair percentage of the Sarina output did go to higher quality things. But perhaps if that is not right let us know on notice. I am not doubting you; it is just that I had that sort of impression. But it might be a 10-year-old impression.

Answer:

The Sarina ethanol plant has an ethanol production capacity of 60 million litres a year and currently produces around 34 million litres of fuel ethanol a year. The remaining ethanol output is ethanol for food, beverage and industrial uses, some of which is exported (Bruce Harrison, Biofuels Association of Australia). Half of the domestic market for food, beverage and industrial use ethanol is supplied by CSR (CSR website).

Question: ABARE 15

Division/Agency: Australian Bureau of Agricultural & Resource Economics
Topic: Research on ligocellulose
Hansard Page: 90-91 (27/05/08)

Senator Nash asked:

Senator NASH—Are you aware of any research that is actually happening on ligocellulose in Australia?
Mr Glyde—I am not personally aware, but I understand some has been conducted. I think CSIRO is the place to go.
Senator NASH—I am very happy for you to take that on notice, if you would not mind, and come back to us. That would be quite useful and we can follow it up from here.
Dr Sheales—I understand that there is that sort of research going on. We would have to look up as to who exactly it is.
Mr Glyde—We will work with our colleagues to give you an answer.
Senator NASH—That would be great.
Senator IAN MACDONALD—Assuming the CSIRO still exists. I thought it got decimated.
Senator NASH—Exactly. If you could take that on notice for me and also the funding arrangements for that research?
Mr Glyde—That is probably a question best directed to CSIRO. We can point you in the direction as to where to go, but finding out exactly what the nature of the funding is for the research is probably a question best put to CSIRO.
Senator NASH—I will do that. Thank you.

Answer:

The Queensland University of Technology (QUT) is collaborating with the Australian sugar industry on the feasibility of using waste biomass generated by the Australian sugar industry.

CSIRO is researching enzymatic and thermochemical conversion of lignocellulose. In collaboration with Monash University, CSIRO has developed second generation technology for producing a bio-crude oil from lignocellulose.

Contact:
Dr Deborah O'Connell
Systems Analyst
CSIRO Sustainable Ecosystems
Phone: 61 2 6242 1573

A Renewable Energy Development Initiative grant was awarded to MicroBiogen Pty Ltd in December 2006 to research the conversion of plant waste biomass into ethanol. Their technology uses non-GMO yeasts to ferment sugars in plant waste.

Contact: Dr Paul Attfield (02) 9850 8156

Question: ABARE 16

Division/Agency: Australian Bureau of Agricultural & Resource Economics
Topic: Dairy survey sample
Hansard Page: 91 (27/05/08)

Senator McGauran asked:

Senator McGAURAN—I return to my question on Victorian dairy. I hope that you have taken on notice that the northern irrigated farmers is what I was looking at. Can you also tell me whether this figure is correct as published? Victoria has two-thirds of the dairy farms across the Australia and yet only one third of the sample was taken in Victoria? I would request that you get back to me on the sampling.
Mr Glyde—We can do that.

Answer:

The Australian Dairy Industry Survey (ADIS) conducted by Australian Bureau of Agricultural & Resource Economics (ABARE) is designed to report reliable estimates of farm financial performance at a regional and state level for all Australian states and the major dairying regions within each state. Each state has at least two regions.

In designing its surveys, ABARE balances the need to provide reliable estimates for all regions and states with the total number of farms surveyed. This means that sufficient sample must be drawn in each region to provide estimates with relatively low standard errors. This requirement has led to 95 dairy farms being surveyed in Victoria (out of 300 for the national as a whole).

Data collected from the sample are weighted by size and production in each region and to correspond to known data from the Australian Bureau of Statistics and Dairy Australia.