Senate Rural and Regional Affairs and Transport Legislation Committee

ANSWERS TO QUESTIONS ON NOTICE

Supplementary Budget Estimates October 2009

Agriculture, Fisheries and Forestry

Question: GRDC 01

Division/Agency: Grains Research and Development Corporation
Topic: GM canola segregation
Hansard Page: 129 (19/10/2009)

Senator NASH asked:

Senator NASH—I did not think you would. Can I just very quickly, to finish up, go to the issue of segregation and the GrainCorp announcement which we were discussing at the last lot of estimates. Have you had any discussions with GrainCorp since then about their approach? I know we were discussing at the time that the cost of the segregation was going to fall on the non-GM grower, and I do not want to revisit all of that—we had that discussion last time—but have you had any correspondence or discussions with GrainCorp since about how they intend to approach it, or has anything changed in terms of their approach in the meantime?
Mr Reading—No, I have not had any direct discussions with them. I do believe, though, they are offering the segregations now. I believe that but I am not sure. I have not had direct contact with them.
Senator NASH—My understanding, though, was they were always going to offer an ability to segregate but the cost to segregate would fall on the non-GM grower. Is that correct?
Mr Grant—The information I have is that the farmers who want to deliver into non-GM canola segregation will not have to pay for additional tests to prove that their crops are not genetically modified.
Senator NASH—That is good news, because at the time it was definitely reported that they would.
Mr Grant—It was uncertain.
Senator NASH—So something has changed in the meantime?
Mr Grant—That is the information I have.
Mr Reading—Yes, I had heard the same. But, as I said, I have not had direct contact with GrainCorp to confirm that.
Senator NASH—Could you undertake to take on notice and to clarify that for the committee and come back to us?

Answer:

GrainCorp have confirmed that they are offering segregation at collection points and silos for GM and non-GM canola. They have further advised that the cost associated with GM testing of canola is not passed on to farmers.

Senate Rural and Regional Affairs and Transport Legislation Committee

ANSWERS TO QUESTIONS ON NOTICE

Supplementary Budget Estimates October 2009

Agriculture, Fisheries and Forestry

Question: GRDC 02

Division/Agency: Grains Research and Development Corporation
Topic: Disease research
Hansard Page: 129-130 (19\10\2009)

Senator WILLIAMS asked:

Senator WILLIAMS—Yes, exactly. So you are still continuing research into black point, crown rot and grain colour.
Mr Reading—Correct.
Senator WILLIAMS—How is that going?
Mr Reading—We have just done a major survey into crown rot, which is particularly a problem in the northern areas, as you are probably aware. When we have done the work, there is the farming systems approach to crown rot control and also the potential genetic side of it. With the crop rate in the farming systems, we have surveyed a number of growers—in fact, the leading growers who use very detailed crop rotation programs—and they can effectively control crown rot in their systems. We have identified what is best practice in farming systems, what growers are not adopting crops in their rotation and what we can do about lessening their concerns and increasing their confidence in growing crops in the rotation, particularly the legumes. On the genetic side, we are doing work with the Queensland Department of Primary Industries about identifying potential genetic advances that may give some control of the disease.
Senator WILLIAMS—What is your budget for disease research per year?
Mr Reading—Disease research specifically? I will need to take that on notice. I could not give you the exact number.
Senator WILLIAMS—If you could take that on notice, and also whether that budget has increased this year or remained stable or decreased.

Answer:

1. The 2008/09 GRDC investment in disease research in wheat and barley was $8,028,779.

2. The GRDC investment in wheat and barley disease management increased by $1,408,256 in 2008/09 compared to the 2007/2008 investment of $6,620,523.

Senate Rural and Regional Affairs and Transport Legislation Committee

ANSWERS TO QUESTIONS ON NOTICE

Supplementary Budget Estimates October 2009

Agriculture, Fisheries and Forestry

Question: GRDC 03

Division/Agency: Grains Research and Development Corporation
Topic: University Funding
Hansard Page: 131 (19/10/2009)

Senator ADAMS asked:

Senator ADAMS—Does GRDC provide any funding to Australian universities?
Mr Reading—Absolutely. I could give you the exact amounts on notice, but they are one of our major areas. If you look at where our partners are, we have CSIRO—we are a major investor in CSIRO—and, obviously, the states' departments of agriculture and the universities. If you hang on one minute, I can probably tell you the exact number. Certainly in Western Australia—we were looking at it the other day—of the five universities we fund, Murdoch and UWA are in the top five. The biggest is the University of Adelaide, because that is the Waite Research Institute. I think the dollars that we are putting into the universities—I will keep flicking—are probably about $30 million, but let me take that on notice, unless I flick to it in a minute, because I have that here somewhere. No, I will take it on notice.
I will just give you that number on the universities, if I can read it: University of South Australia, 1.13; University of Melbourne, 1.39; Murdoch University, 1.97; University of Sydney, 2.96, University of Western Australia, 7.4; University of Adelaide—but I will give you that on notice formally.
Senator ADAMS—That would be good.

Answer:
Over the past five years the GRDC investment in Australian universities was $113.27 million. The following table shows the recipients of GRDC's investment in 2008-09 totalling $23.30 million.

University	**2008-09 $m**
University of Adelaide	8.99
Murdoch University	3.14
University of Western Australia	2.96
University of Sydney	2.35
Charles Sturt University	1.23
University of Melbourne	1.17
University of Tasmania	0.86
Australian National University	0.58
University of Queensland	0.42

Question: GRDC 03 (continued)

University of New England	0.31
University of Southern Queensland	0.29
Queensland University of Technology	0.25
Curtin University	0.18
Ballarat University	0.12
University of New South Wales	0.11
Flinders University	0.08
La Trobe University	0.07
University of South Australia	0.06
Swinburne University	0.06
University of Southern Cross	0.03
Royal Melbourne Institute of Technology	0.02
Monash University	0.01
TOTAL	**23.29**

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ANSWERS TO QUESTIONS ON NOTICE

Supplementary Budget Estimates October 2009

Agriculture, Fisheries and Forestry

Question: GRDC 04

Division/Agency: Grains Research and Development Corporation
Topic: Genetically Modified Canola
Hansard Page: Written

Senator WILLIAMS asked:

GRDC

1. In May Estimates I was told there had been a number of trials of GM Canola, although three looking at yield failed. Could you update me on any other trials conducted and the yield compared to conventional Canola?
2. It was mentioned a three year study is taking place on the relationship between growers of GM canola and their neighbours who are not growers of GM canola. Has that started?
3. Any results in yet?
4. Why is this survey being done?
5. Are more and more conventional Canola growers switching to GM canola?
6. There was a report recently of an outbreak of GM canola in southern NSW – apparently it was found on the roadside – are you aware of that?
7. Can you bring me up to date with research on GM lupins and wheat?
8. What effect will the decision by Elders and CBH not to buy GM canola have on grower returns?
9. Is this a significant setback for growers of GM canola?
10. You invest $16 million into climate change research – what projects are underway now?

Answer:

1. The Grains Research and Development Corporation (GRDC) is testing GM herbicide resistant canola as part of its National Variety Testing (NVT) program. Results from the 2009 trials will be published on the NVT website when they become available.

2. A survey of canola growers has been undertaken for the 2008-09 growing season. The relationship between neighbours is one of many questions which are being tracked in the three-year study.

3. The GRDC has received a draft interim report with the results from the first year survey and is expecting this to be finalised shortly.

Question: GRDC 04 (continued)

4. The study has been commissioned to benchmark the economic, agronomic and environmental impact of GM herbicide tolerant canola using a survey method.

5. Yes.

6. Yes.

7. The vast majority of GM research is carried out overseas. In Australia, most GM research work in wheat and in some other field crops is currently undertaken independent of the GRDC. The situation is entirely different with the smaller crops such as lupins where growers could potentially derive substantial and long-term agronomic, environmental or economic benefits from GM technologies, however due to the small size of the crop private investment has not been forthcoming.

8. As a research and development corporation, the GRDC does not model market behaviour or returns.

9. n/a

10. Climate change research projects underway are set out in the table below:

Project Title
Energy Efficiency, Self Sufficiency and Production at Farm to Regional scale
New resources for breeding for heading date and improved frost tolerance
Maintaining wheat grain number and size during reproductive stage drought stress.
CropMate - climate information for crop production
Pulse Germplasm Enhancement - Vegetative and reproductive frost tolerance in pulse crops
Pulse Germplasm Enhancement - Bacterial blight in field pea, pod drop in lentil, and heat stress tolerance in field pea and faba bean.
Assessment of Greenhouse Gas Emissions in cereal - legume cropping systems in Southern Australia
Measurement of paddock-based greenhouse gas emissions from wheat production to improve life cycle assessment of wheat-products
Grains Industry Research Scholarship - Hayden Sprigg (CUR) - Adaptations for growing wheat in a drying climate
Breeding Chickpea for Drought Tolerance and Disease Resistance
Contribution to Primary Industries Climate Change Strategy

Question: GRDC 04 (continued)

GRDC Contribution towards Managing Climate Variability Program
Breeding for frost tolerance in barley
Effect of elevated carbon dioxide on wheat-based production systems under Australian field conditions
Nitrous Oxide Research Program (NORP) : Integrated data and synthesis framework for reducing N2O emissions from Australian agricultural soils
The potential of inhibitors for the mitigation of nitrous oxide emissions from animal production systems, in south-eastern Australia
Enhanced efficiency fertilizers as mitigation tools for reducing greenhouse gas emissions from intensive agricultural systems in Australia.
Fertiliser Management Strategies for Decreasing On-Farm Greenhouse Gas Emissions
Reducing nitrous oxide emissions from sugarcane lands
Mitigating nitrous oxide emissions from soils using pulses and improved nitrogen management
Reducing nitrous oxide emissions in irrigated grains-cotton farming systems
Soil Carbon Program
WA: Assessing the current status and further capacity for soil carbon sequestration in Western Australian farming systems
VIC: Soil carbon in cropping and pasture systems of Victoria
NSW: Land the Carbon Bank: (measuring, monitoring and determining the viability of sequestering carbon in agricultural systems in NSW).
QLD: The pasture type and management affect soil carbon stocks in grazing lands of northern Australia - Cropping Land the Carbon Bank
Improving nitrogen and phosphorus management in south-east Australian cropping systems
Developing climate change resilient cropping and mixed cropping/grazing businesses in Australia
Bio-Routes to Fertilisers
Manipulating soil carbon and nutrient pools

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ANSWERS TO QUESTIONS ON NOTICE

Supplementary Budget Estimates October 2009

Agriculture, Fisheries and Forestry

Question: GRDC 05

Division/Agency: Grains Research and Development Corporation
Topic: Impacts of genetically modified canola
Hansard Page: Written

Senator NASH asked:

1. In Budget estimates 2009, Mr Perrett advised that a report has been commissioned to look at the impacts and other issued surrounding volunteers and contamination of other crops.
   What is the progress of this report?
2. What data have you to date?
3. What data can you provide from the growers?
4. What data can you provide from the neighbours?
5. When is this report due to be finalised?

Answer:

1. The GRDC has invested in a project UM00035 - Impact assessment for genetically-modified canola in cropping systems. This project is led by Professor Rick Roush of the University of Melbourne in collaboration with the University of Adelaide, NSW Department of Industry and Innovation and the recent inclusion of the University of Western Australia in 2009.

   The introduction of Roundup Ready (RR) canola (tolerant to the herbicide glyphosate) in Victoria and New South Wales in 2008 makes it possible to repeat experiments from 2000 on pollen flow from 'Clearfield' canola.

   In this latest project, more than 1 kg of canola (at least 200,000 samples) from 35 conventional canola crops within 1 m to 4 km from RR canola paddocks in NSW and Victoria was collected during October and November 2008.

   Collected seed samples were planted in separate plots across approximately five hectares in December 2008 at University of Melbourne's Dookie Campus. All plots were sprayed twice with glyphosate, and scored for surviving plants. Samples of nearly 1000 plants were also tested via Polymerase Chain Reaction (PCR) to double-check their resistance status. This has demonstrated that field identification of resistance was very accurate.

Question: GRDC 05 (continued)

Similar trials at 17 RR canola sites with a focus on herbicide tolerance in wild radish were also carried out in Western Australia in 2009 under the leadership of Professor Steve Powles of the University of Western Australia.

2. The results of the pollen flow studies are still being analysed. A formal report for the large scale trial on RR canola pollen flow will be publically available following peer review and acceptance of this research for publication in a quality refereed journal. It is envisaged that this paper will be accepted for publication in late 2010. As part of the project, samples of ryegrass and wild radish seeds were also collected for resistance testing in and near RR and conventional canola paddocks. Ryegrass plants were much less common in RR than in non-RR canola paddocks

3 & 4. No data is currently publically available from these studies on grower or neighbour impacts from the introduction of RR canola. An interim report is to be released to GRDC and growers on results of herbicide resistance screening in annual ryegrass and radish and results of weediness studies by 1 May 2011.

5. A final report on this research is to be released on 15 August 2013 to the GRDC and following this, the results of RR canola impacts on herbicide resistance screening in annual ryegrass and wild radish will be made publically available and reporting to growers on the results will begin.

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Supplementary Budget Estimates October 2009

Agriculture, Fisheries and Forestry

Question: GRDC 06

Division/Agency: Grains Research and Development Corporation
Topic: Genetically modified canola
Hansard Page: Written

Senator NASH asked:

1. In September 2009 in the Berrigan Shire, New South Wales, genetically modified canola plants were found growing on the side of the road, metres from non-GM fields and that of the 20 tests undertaken on a 20 km stretch of the Riverina Highway, 19 tested positive for GM. Has the GRDC investigated this claim?
2. What was the outcome of this investigation?

Answer:

1. No

2. N/A