

Rural and Regional Affairs and Transport Committee

ANSWERS TO QUESTIONS ON NOTICE

Additional Estimates February 2013

Agriculture, Fisheries and Forestry

Question: 47

Division/Agency: Agricultural Productivity Division/Grains Research and Development Corporation

Topic: White Grain Research Funding

Proof Hansard page: 108-109

Senator EDWARDS asked:

Mr Tucker: The commission is part of the portfolio, so you can put questions to us and we will put them to the appropriate bodies and come back to you with detailed responses.

Senator EDWARDS: No worries. I will do that. I will move on to wheat. I brought it up earlier this morning and got referred to here. My questions relate to the white grain research funding that is supported by GRDC and the South Australian Grain Industry Trust. Do you know what area of South Australia is affected by white grain and is it now endemic in other areas as well around Australia?

Mr Koval: I am not quite sure that endemic is the right word, but certainly in South Australia—

Senator EDWARDS: What is the word?

Mr Koval: It is an emerging disease. It is a disease, as I understand it, that was not well known or seen much until about two or three years ago.

Senator EDWARDS: Where did it come from?

Mr Koval: I understand that it is a necrotrophic fungus. It is a fungus that lives in the soil. They are doing research to see how it is transferred. Is it transferred through rain or wind spores or those types of things. The wheat crops in parts of South Australia, including the north-eastern Eyre Peninsula in the upper north, are particularly affected at the moment. Places like Victoria and southern New South Wales and the western side of the Eyre Peninsula are radically free of the disease.

Senator EDWARDS: Do we know how many tonnes have actually been affected at all?

Mr Koval: I am not aware of that.

Senator EDWARDS: Or how many hectares? We have got no grasp of it?

Mr Koval: I am not aware of it. I can certainly ask and see what we can find on notice for you, Senator.

Senator EDWARDS: If you would not mind. I have had a lot of representations about it and people are concerned about it, but I do not know how big the problem is. You probably do not, either, by the sound of it. You may do.

Mr Koval: It is one of those emerging diseases and so we are trying to get a handle on how the fungus operates, how widespread it is and those types of things. GRDC have been asking growers to let them know if they see white grain or a light, discoloured grain in their crop so that we can get a better handle on the spread of it.

Senator EDWARDS: Where did it come from?

Mr Koval: I am not quite sure of the origin of it. It has emerged in the last couple of years.

Senator EDWARDS: Imported seed wheat? We do not import seed wheat, surely.

Mr Koval: No.

Senator EDWARDS: Is it possible to have that one on notice? Could you try and chase that?

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Question: 47 (continued)

Answer:

White grain was detected in wheat deliveries in South Australia, mainly in the north-eastern Eyre Peninsula and the upper north, in 2010 and 2011, and in northern New South Wales (NSW) and Queensland in 2010 due to the wet conditions experienced during those years.

White grain was detected in 174 370 tonnes of wheat deliveries in South Australia in 2011 and more than 300 000 tonnes in northern NSW and Queensland in 2010. Details are not available on the levels of white grain detected or the amount of grain downgraded or rejected. It was not an issue in the 2012 harvest due to the dry spring conditions.

White grain is a minor issue in Victoria and southern NSW. Western Australia remains free of the disease.

Two fungi are causing white grain in South Australia. One is *Botryosphaeria zeae* but the second, while similar, is still to be identified. The Grains Research and Development Corporation has advised that the South Australian white grain fungi do not appear to produce toxins harmful to stock or humans. In Queensland, the fungus responsible for white grain has also been identified as *Botryosphaeria zeae*, which is usually associated with stem rot in maize in that state.

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Senator EDWARDS asked:

Senator EDWARDS: We sit in this sort of sterile environment and talk about these things, but are you slapping the backside on this and getting a move on? Give me some indication—and Senator Heffernan would say that that is bureaucratic speak, and I do not mean to offend you, because you have done nothing to offend me—that there is a focus and a priority because this is a very big thing for my state.

Mr Koval: I understand 2010 was the first year it started to emerge as a problem. In 2011 they actually ran fungicide trials to see if they could use some of the fungicides available now to control it. In 2012-13 they continue to try to work out a better way of controlling it. So it emerged reasonably quickly and they very quickly went into trials to see what they could do to control it.

Senator EDWARDS: Who is heading up that task force?

Mr Koval: I cannot recall the researcher's name. I can provide it to you on notice.

Answer:

The Grains Research and Development Corporation, in consultation with industry, is funding specific research on white grain to determine how the fungus operates and the best way to manage this emerging disease issue.

Relevant research activities funded by the Grains Research and Development Corporation in 2012–13 include:

- Disease Management in a Changing Farming Environment, which incorporates a white grain component—\$100 000. This is a joint initiative with the South Australian Research and Development Institute, working collaboratively with the South Australian Grains Industry Trust.
 - Northern Integrated Disease Management which incorporates a white grain component—\$150 000. This is a joint initiative with Queensland Department of Agriculture, Fisheries and Forestry.
 - Understanding the production risk from necrotrophic fungi which incorporates a white grain component—\$60 000. This is a joint initiative with Australian National University
- Note: the funding figures provided above relate to the white grain component of that research project.

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Question: 48 (continued)

The aims of this research include:

- Developing an improved knowledge of the life cycle and epidemiology of the white grain fungus through studies of fungus inoculum survival and dispersal. The impact of Crop Varieties and fungicide control options on white grain levels will be investigated. The research will involve controlled environment experiments and field trials on Eyre Peninsula.
- Accurately identifying the fungus causing head blight and “white grain” in winter cereals and studying the biology of the pathogen.

Grains Research and Development Corporation funding for research is supported by grower levies, matched by funds provided by the Australian Government.