Senate Standing Committee on Rural and Regional Affairs and Transport

ANSWERS TO QUESTIONS ON NOTICE

Budget Estimates May 2007

Agriculture, Fisheries and Forestry

Question no: PIAPH 01

Division/Agency: Product Integrity, Animal and Plant Health
Topic: Bee Colonies Collapse
Hansard page: 102 (24/5/07)

Senator Heffernan asked:

CHAIR—In amongst the infected areas are there colonies of bees where some retired old codger has a few trees and never moves his bees? Are there surviving colonies in amongst all the mayhem?
Dr Thornber—We do not have information on that. I could try and find out.
CHAIR—Are we going to find out? We might as well. Forewarned is forearmed.
Dr Thornber—Yes.

Answer:

In the United States of America, the vast majority of bee hives are involved in the pollination industry. This involves extensive movement of the hives in a strict schedule to meet the pollination requirements of a number of industries. Each February, over half of the hives in the USA are brought to the central valley of California to pollinate the almond industry. In the space of a single season, hives move from Louisiana to California to Maine to New York and back to Louisiana. Because of this movement and extensive co-location of the hives, it makes little sense to talk about Colony Collapse Disorder (CCD) occurring in one location and not in another.

From 21 June to 2 July 2007, a team of Australians comprising DAFF epidemiologist Dr Iain East, CSIRO bee expert Dr Denis Anderson and industry representative Ms Paula Dewar visited the USA and spoke with a number of experts. In the course of their discussions, it was reported that some apiarists have not been affected by CCD. In particular, one major apiarist – who divides his hives between the pollination circuit and honey production – lost far fewer bees in the hives that remained in one location in Louisiana for the whole year than in the hives that travelled throughout the USA on the pollination circuit.

The USA does not maintain a list of amateur apiarists and therefore it is unknown whether individuals exist who may own a number of stationary hives that are unaffected by CCD.

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Budget Estimates May 2007

Agriculture, Fisheries and Forestry

Question no: PIAPH 02

Division/Agency: Product Integrity, Animal and Plant Health
Topic: Bee Colonies Collapse
Hansard page: 104 (24/5/07)

Senator Heffernan asked:

Dr O'Connell—Would it be useful if we could come back to you with a fairly complete picture of what the state of play is that we know of and take it from there? There is obviously enough interest in the committee overall.
CHAIR—Thank you.

Answer:

From 21 June to 2 July 2007, a team of Australians comprising DAFF epidemiologist Dr Iain East, CSIRO bee expert Dr Denis Anderson and industry representative Ms Paula Dewar visited the United States of America and attended a workshop on Colony Collapse Disorder (CCD) in Ames, Iowa. This workshop was held as part of the 9th International Symposium on Plant-Pollinator Relationships. In addition, the team visited the US Department of Agriculture Bee Laboratory in Beltsville (Maryland), Dr Gene Robinson at the University of Illinois, Dr Marla Spivak at the University of Minnesota and Prof. Diana Cox-Foster at Pennsylvania State University.

The discussions revealed that a significant mortality event occurred in the autumn and winter of 2006. Mortality figures approached 45% of the bees in the USA industry – far in excess of the expected 20% mortalities that regularly occur each winter.

After talking to a range of experts, it was apparent that there is a diversity of opinion over the cause of the mortality event. Some experts believe that it is a new and as yet uncharacterised phenomenon. Early studies suggest an association between CCD and a virus called Israeli Acute Paralysis Virus (IAPV). However, there is no evidence to prove that this observed association is causal, that is, there is no proof that IAPV is the cause of CCD.

Other scientists interviewed by the Australian team are sceptical of the claim that CCD is caused by a new pathogen and believe that the mortality event can be explained by existing causes such as the varroa mite, stress induced by constant transport of the bees, or poor management.

It is clear that more research needs to be done to identify whether CCD is a new phenomenon. If that is the case, then its cause needs to be identified, and the possible implications for Australia need to be assessed.

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ANSWERS TO QUESTIONS ON NOTICE

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Question no: PIAPH 03

Division/Agency: Product Integrity, Animal and Plant Health
Topic: Melamine
Hansard page: 105 (24/5/07)

Senator Heffernan asked:

CHAIR—So it comes out of the petroleum industry?
Mr Magee—Possibly. I might have to take that bit on notice.

Answer:

Melamine is a synthetic chemical produced using industrial processes. Most modern industrial processes manufacture melamine from urea.

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Budget Estimates May 2007

Agriculture, Fisheries and Forestry

Question no: PIAPH 04

Division/Agency: Product Integrity, Animal and Plant Health
Topic: Melamine
Hansard page: 105 (24/5/07)

Senator Heffernan asked:

CHAIR—Do we put this same whatever it is into our gluten?
Mr Magee—Not that I am aware of.
CHAIR—You might take all that on notice and come back with an informed—
Mr Magee—Sure.

Answer:

Melamine is not permitted to be used as a food additive in Australia. There are no provisions for melamine use in the Australia New Zealand Food Standards Code (ANZFSC). It would contravene the ANZFSC to add melamine to wheat gluten.

Senate Standing Committee on Rural and Regional Affairs and Transport

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Budget Estimates May 2007

Agriculture, Fisheries and Forestry

Question no: PIAPH 05

Division/Agency: Product Integrity, Animal and Plant Health
Topic: Melamine
Hansard page: 105 (24/5/07)

Senator Nash asked:

Senator NASH—So the animal cannot actually absorb it. It is just to make it look like it has more protein than it does, is that it?
Senator O'BRIEN—When it is analysed, it gives you that reading, does it?
Dr O'Connell—I think you may be stretching our knowledge here.
CHAIR—Come back with an informed answer.

Answer:

Melamine is a cheap additive that looks like protein in tests, even though it does not provide any nutritional benefits. When animals digest melamine, it is mostly excreted from the body in urine. However, tests on rats and mice found that the main toxic effects of dietary exposure were calculi formation (constituted by melamine and uric acid), inflammatory reactions and hyperplasia in the urinary bladder.

Question no: PIAPH 06

Division/Agency: PAIPH
Topic: Citrus Canker
Hansard page: 107 (24/5/07)

Senator O'Brien asked:

Senator O'BRIEN—How much has this cost the Commonwealth to date?
Ms Ransom—It is probably in the order of $10 million, but I would have to check that because I only have the total budget minus the—

Answer:

The Australian Government has expended $14.5 million in response to citrus canker to the end of the 2006-07 financial year. This included the direct costs to eradicate the disease and assistance to growers directly impacted by the disease.

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ANSWERS TO QUESTIONS ON NOTICE

Budget Estimates May 2007

Agriculture, Fisheries and Forestry

Question no: PIAPH 07

Division/Agency: Product Integrity, Animal and Plant Health
Topic: Citrus Canker
Hansard page: 108 (24/5/07)

Senator O'Brien asked:

Senator O'BRIEN—If I am a mile outside the protocol and I have six trees, have I been notified?
Ms Ransom—I do not believe so. But the pest quarantine area has quite a large buffer built into it.
CHAIR—Yes, all of that—but you would have thought that it would be commonsense to try and find out, in the buffer zone, where the nearest trees were and go and have a look at those trees to see if the thing is working, wouldn't you?
Ms Ransom—I can follow that up with Queensland.
CHAIR—I think that would be a good idea.

Answer:

Officers from the Queensland Department of Primary Industries and Fisheries (QDPI&F) have regularly surveyed farming properties within the Emerald Pest Quarantine Area (PQA) up to and including the margins of the PQA in the 18 months since all commercial varieties of citrus were removed and destroyed. A number of citrus trees on properties adjacent to the margins have been inspected for canker symptoms during this period and have been found free.

Surveys within the PQA have included the native *Citrus glauca*, which can become diseased under laboratory testing but is likely not to sustain disease in nature. These are also free from disease ensuring that no citrus canker has been detected in the PQA since May 2005.

The boundary of the PQA was set at a 15 km radius around the known infected properties. This is beyond known distance of natural spread. All susceptible hosts in this area have been destroyed and ongoing surveys have verified that there is no remaining disease.