

**REPORT OF PROCEEDINGS BEFORE**

**STANDING COMMITTEE ON STATE DEVELOPMENT**

**INQUIRY INTO THE USE AND MANAGEMENT**

**OF PESTICIDES IN NEW SOUTH WALES**

**At Dubbo on Monday 26 July 1999**

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**The Committee met at 9.30 a.m.**

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**PRESENT**

**The Hon. A. B. Kelly (Chairman)**

**The Hon. I. Cohen**  
**The Hon. J. R. Johnson**

**CHAIRMAN:** I advise that under Standing Order 252 of the Legislative Council any evidence given before the Committee and any documents presented to the Committee which have not yet been tabled in Parliament may not, except with the permission of the Committee, be disclosed or published by any Member of such Committee or by any other person. Copies of the guidelines are available on the side table.

*Motion by the Hon. J. R. Johnson agreed to:*

*That, in accordance with the Legislative Council resolution of 11 October 1994, the Committee authorises the sound broadcasting and television broadcasting of its public proceedings held this day.*

**SAMUEL AMEY**, Retired Farmer, of 14L Dulcidene Road, Dubbo,

**DAVID CHARLES YEO**, Regional Manager, Graincorp, of 31L Dulcidene Street, Dubbo, and

**RICHARD NOSS**, Small Businessman, of 136R Burraway Street, Dubbo, sworn and examined:

**CHAIRMAN:** Mr Amey, in what capacity are you appearing before the Committee?

**Mr AMEY:** On my own behalf and as a member of the Citizens Against Pollution.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Mr AMEY:** I did.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Mr AMEY:** Yes.

**CHAIRMAN:** David, in what capacity are you appearing before the Committee?

**Mr YEO:** As a member of the Citizens Against Pollution.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Mr YEO:** I did.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Mr YEO:** Yes.

**CHAIRMAN:** Richard, in what capacity are you appearing before the Committee?

**Mr NOSS:** On behalf of the business and as a member of the Citizens Against Pollution.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Mr NOSS:** Yes.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Mr NOSS:** Yes.

**CHAIRMAN:** If you should consider at any stage during your evidence that, in the public interest, certain evidence or documents you may wish to present should be heard or seen only by the Committee, then the Committee would be willing to accede to your request and take that evidence in camera. However, I would warn you that, whilst this Committee resolves to hear the evidence in camera and therefore treat it as confidential, Parliament always reserves the right to overturn the Committee's decision and make the evidence public.

Would you like to make a short opening statement before we ask you questions?

**Mr AMEY:** Yes, Mr Chairman. Before I do so I would like to table a document for each member of the Committee. Honourable members of the Standing Committee, ladies and gentlemen: As a concerned resident of the community and a member of Citizens Against Pollution, I am concerned about the excessive use of pesticides and the control of such. I wish to tender a map and refer to a local proposed development to illustrate what should not happen, regardless of the nature of the project, where intensive use of pesticides is anticipated.

In my opinion, in this particular case, Layfaire Pty Limited, the applicant responsible for the development application to grow cotton – a crop requiring intensive use of chemicals – should have, in the first instance: (1) conducted a complete survey of the immediate area, to establish a good neighbourly relationship; and (2) produced a map showing the population density and sensitive areas, including the organic oil crushing factory, cattle studs, olive and nut plantations, vineyards, fish farms, public reserves and the general environment. Human health should be of the utmost importance. In this particular case, the concerns of 500 residents with a 4-kilometre radius of the proposed development received no consideration or were not contacted in any form.

Many residents in this area suffer respiratory problems, while some have experienced pesticide contamination. Their right to a clean atmosphere and environment could be denied with approval of a development relying on repeated use of chemicals. Spray drift from pesticides is of great concern to our community, for no matter how careful or experienced the operator, spray drift cannot be completely controlled, as many cases of contamination have been documented. Unfortunately, compensation is not easily obtained. While some compensation for damage to crops and animals have been secured, human health appears to be of the least concern and rates the lowest priority by responsible bodies. The reason for this appears to be in the wording of section 37 of the Pesticides Act, which states:

“A person shall not wilfully and without reasonable cause do anything likely to cause a risk of injury by pesticides to himself or another or damage by pesticides to the property of another.”

Some experts believe this clause virtually provides immunity to the offender. I quote a case. In December 1991 a party of cotton chippers was sprayed by plane, and the incident was reported. In 1993, two years later, the case came to court under section 73 of the Pesticides Act. Although the pilot admitted that he knew that chippers were in the immediate area, he was acquitted by the Supreme Court. It would appear that section 37 of the Act should be amended to make a conviction more easily obtained. This, in turn, might well deter careless operators and make all users of pesticides more aware of their responsibilities.

It is interesting to note from recordings that only one successful prosecution has been obtained under section 37 at the time of the above court case. Legislation to alter the above should receive a quick passage through Parliament. I thank you for the opportunity to speak at this inquiry.

**CHAIRMAN:** If I could clarify whether this is a typographical error in the submission. You say section 37 of the Pesticides Act, and in the paragraph of the middle of the last page you refer to the fact that in December 1991 the case brought under section 73. Was it section 37 or section 73?

**Mr AMEY:** It was section 37. It is a typographical error.

**CHAIRMAN:** David, do you have any comments to make?

**Mr YEO:** Not really, not on that. I think Sam has covered it pretty well. I am following a different line. I would like to deal with a problem that we have with fumigants in our community. I have worked within this industry for 33 years, and I would like to follow the subject of fumigants phosphene, phostoxin and those sorts of gases that are used on the farm. They are a very toxic sort of a gas, and if you run through the first page of the submission you will see what the boiling point of this gas is. It is 87.4 at room temperature. It is highly poisonous.

If we go to the next page, you will see – and this is very important – the safe working is 0.03 parts per million in any one 8-hour working period. This phosphine gas is in pelletised form, or it is in liquid gases. It is very highly used in the grain industry. The trucks have been detected at our storages at up to 380 parts per million, which is 380-odd times the safe working of this gas. Now, these trucks are passing through the city, townships and other small towns.

In the submission you can see the effects of the gas. It severely irritates the nose, throat, respiratory passages, and causing coughs and shortage of breath, et cetera. It causes deep lung damage. It irritates the eyes, the nose and the throat and the nervous system. It causes headaches, nausea, vomiting. People become confused, have double vision, have an unsteady walk, and suffer tremors and stutters. It can be fatal. It affects the liver and kidneys, the heart, and causes a drop in blood pressure.

So, if you could take those matters on board. If a person is following these trucks for long distances and the truck has a contamination at those parts per million and it is escaping when that transport operator is travelling to the seaboard or to the end user of that product, the driver or passengers in the following vehicle could become drowsy and sleepy, and that could cause some major problems. Severe single exposure can cause any of the above. It is a lethal gas.

We in the industry certainly are having our problems with it. About 14 months ago we had a site opened. There were seven semitrailers turned up to deliver their grain. The first truck got past the inspection point; that grain was delivered into rail trucks; we then tested the second truck and got 100 parts per million of phosphine gas. We then checked the rail truck that that grain had gone into, and it was at 298 parts per million. Those trucks left our site and returned to the farm, a distance of 120 kilometres. So the enormity of that danger to the community or anyone travelling in the event that that truck tipped over, for the rescue workers, et cetera, is obvious. It is a major issue. There should be some means of convicting these people who are wilfully and deliberately doing this.

The other day a truck was detected at the Port of Newcastle. A truck was detected there with phosphine at a rate of more than 100 parts per million. That truck had travelled from the Central West of New South Wales all the way to that port, a distance of 400 or 500 kilometres. I am very concerned about that, and so should this Committee be very concerned about the prospect of death or serious risk, in case of accidents, to people who are following these vehicles. There were six trucks returned to the farm, and again those drivers complained of exactly what this meeting was saying: nausea, double vision and whatever. These vehicles are grossing 42 tonnes.

The document is regarding the proper use of fumigants. These fumigants can be readily obtained off the shelf at any of the farm suppliers around town. There should be some regulation to control this problem. It was only 14 months ago that a child ate one of these tablets and was killed immediately. What the truck operators are doing now is loading the trucks with grain that is infested with live insects. The quickest way to activate the fumigants is to place them in a tin with a few holes and add water. As you can see, it is very combustible.

**CHAIRMAN:** Would you like to formally table this document?

**Mr YEO:** Yes. It is an extract from the Graincorp Pesticide Manual.

**Document tabled.**

**CHAIRMAN:** Richard, do you have any comments to make before we ask questions?

**Mr NOSS:** Only from a social point of view. I am a small businessman in Rawsonville. I operate a non-GMO and organically-based oil crushing business. I am lucky I do not get, to my knowledge, affected by chemicals. I know we all use chemicals; we have become dependent upon them. But I don't think chemicals are the way of the future. I think the use of chemicals is the biggest problem facing mankind right now. We cannot keep pouring these products onto us and into us and hope to sustain life as we have known it.

We are now going into GMOs, which is a side track, and terminator genes. It is interesting stuff, but this country cannot feed the world. Why not feed the people that we can feed with pure food? We cannot be clean and green and at the same time cover ourselves with chemicals. But you cannot blame the farmers. They have got to be weaned off chemicals, or maybe helped off them. I just speak as a layman. I think it is obvious that we must all take social responsibility for what we do. Chemicals just don't fit in with our future life. I have nothing more to say than that. I had a prepared statement, but what I have said will suffice.

**CHAIRMAN:** We will now ask some specific questions to flesh out some comments that you have made. Before we ask you some questions, could I ask you a question about the map that you have given us. What is the shaded area?

**Mr AMEY:** It is proposed development.

**The Hon. I. COHEN:** Could you elucidate your concerns by giving any specific information regarding pollution, water quality, the effect on fish stocks in the local area, and other water-dependent birds, and also the effect on humans of escape into the environment of these chemicals? Could anyone enlarge on that?

**Mr AMEY:** There have been ample cases documented over the years. I have got books full of them there. They are personal statements from people that have been affected by chemicals, and also their effect on the environment and such. There is any amount of that information documented. But, apparently, it is a very difficult thing to prove that there is contamination by spray. It is easier to prove in animals than it is in humans, unfortunately. That is one of the hold-ups, I think. That is why the investigations get pushed under the counter – they are too hard. People will not complain because it is too difficult to get a conviction.

**The Hon. I. COHEN:** Are there any proven cases, to your knowledge?

**Mr AMEY:** There are people in this room who have been contaminated by chemicals.

**The Hon. I. COHEN:** Are you aware of the responses of other communities overseas of the outlawing of aerial spraying and the impact of aerial spraying on the environment?

**Mr AMEY:** I could show you documents about it. Yes, I have two books of documents there.

**The Hon. I. COHEN:** Perhaps you could make those books available to the Committee.

**Mr AMEY:** Yes, I will.

**CHAIRMAN:** Thank you.

**The Hon. I. COHEN:** What are your main concerns about the cotton development application at Rawsonville? What are your specific concerns?

**Mr YEO:** Our main concern out there is water pollution, because it is a known water table. The water is very close to the surface for us to pump from. We are concerned about the type of soil that this crop is going to be grown on. It will not hold water. The product that they use on cotton is very soluble in water, and therefore it will go back into our basin of water. We are very concerned about the environment issues of Midway Creek and also Ambrose Lake, because once these insecticides – not pesticides – kill all the small insects and whatever, the next step is the small birds that eat those insects. Then they move on, or die. Then, all you have left are black crows, magpies and galahs. It is as simple as that. We are very concerned about that issue.

**The Hon. I. COHEN:** Mr Noss, you did express interest in supporting the organic industry. But, looking at organic, genetically-engineered free industry in this area. What do you think that would mean in both economic and social terms if there was more pressure to go that way, that is, restricting genetic engineering and restricting pesticide usage?

**Mr NOSS:** I think it is the biggest issue facing mankind right now – forget the bombs.

**The Hon. I. COHEN:** In terms of the economy in this region, how would you weigh it up?

**Mr NOSS:** I think it is leading towards having a very big impact in the community. Being organic or GMO is a choice. The track that the community is being led down by large multinational companies that are promoting their use is, if you put it in the extreme case, food manipulation.

**The Hon. I. COHEN:** Could I put it to you this way. Would the community lose out in terms of value of production? I mean, how important are the chemicals in this process, and will the community suffer greatly if there are restrictions on the use of chemicals?

**Mr NOSS:** In the long term they will. In my business, if we are affected then we are out of business. We are supplying many pharmaceutical and food companies in Australia, and we are also exporting to Europe. So it just knocks 15 or 20 jobs directly.

**The Hon. I. COHEN:** Is the organic industry strong in this area?

**Mr NOSS:** No. Well, world-wide it is not strong, but it is growing because more people realise that we cannot keep doing what we are doing to ourselves.

**The Hon. I. COHEN:** Could I direct the next question to any of you gentlemen. Would you support the use of chemicals if there was a ban on aerial spraying and other acceptable methods of application were found? How would you feel about that?

**Mr AMEY:** You cannot control contamination by spraying. That has been proved over the years. There are dozens of cases, probably hundreds of cases. The cotton industry this year has paid out \$450,000 in cattle compensation due to contamination from last season. That is possibly only a portion of the claims. Yes, contamination is a big concern. Spray drift, no matter how the chemical is applied, will cause contamination for some distance.

**Mr NOSS:** May I ask a question?

**CHAIRMAN:** Yes.

**Mr NOSS:** Are we dealing solely with the cotton issue and the requirement for a development application in Dubbo?

**CHAIRMAN:** No. The terms of reference of this Committee include looking at the Pesticides Act and potential changes to it, because the Environment Protection Authority currently is reviewing the Act. A draft bill has been prepared. The purpose of this Committee is to get additional information on all sorts of pesticides usage. Obviously, the particular situation here in Dubbo is of interest, because this is probably one of the first occasions where the council has applied the use of town planning. In other words, the council is trying to control, perhaps, dangerous chemical usage before, rather than after, the process begins. It just brings a different aspect to it.

**Mr NOSS:** I think, in the first place, Dubbo City Council is to be congratulated. People living in Canberra don't have problems with it. People in the country may be okay. But, within the Dubbo city limits, surely the will of the people must prevail. The council has to consider everyone who is living within their city limits. I think the council is to be congratulated on this move, and hopefully it will be copied in other councils. But, when it comes to looking at pesticide use in New South

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Wales and Australia, members of the Committee have got a huge job – a mammoth job – because you will have everyone pushing their own barrow.

**The Hon. I. COHEN:** Indeed. We all do.

**Mr NOSS:** Sure we do.

**The Hon. I. COHEN:** That is why we are here today – hopefully to get information on the record. We would be very interested in finding out more from different areas of the community. In terms of organic production in the local area, are niem and pyrethrum sprays considered successful?

**Mr AMEY:** I really cannot answer you on that. I am not an expert; I am a layman.

**The Hon. I. COHEN:** In terms of the heavy use of pesticides, are there alternative methods that have not been properly promoted, in your opinion, in dealing with various agricultural crops? Are there any other strategies that may be effective if they are given the opportunity? Are you aware of any of those?

**Mr AMEY:** They have got organic cotton which is claimed to require less chemical sprays throughout the year. But, by all comments, even from the cotton industry itself, this year has been the worst year for heliothis that we have ever had. Therefore, they have got to use more chemicals on it. So it depends on each individual season as to just how much and how often the pesticide has to be applied. It is not restricted to cotton of course. I don't want to be seen as singling cotton out. However, we all know that the cotton industry is one of the biggest users of pesticide. Sometimes there are only two days between sprays, and that can go on. It depends on the insect infestation. If it is required twice a week, it has got to be applied twice a week. It is up to Mother Nature, really.

**Mr NOSS:** I think the organic industry would have made a submission to this Committee, would it not?

**CHAIRMAN:** Yes.

**The Hon. J. R. JOHNSON:** Mr Yeo, the fumigants that you have talked about, what is the advantage of these high levels?

**Mr YEO:** The advantage of high levels of phosphine is to kill all stages of the insect, that is, from the egg larvae through to the adult stage. A proper fumigation to kill all stages of these pests is supposed to run over a minimum of 16 days and up to 25 days. It all depends on the level of phosphine that you put in. All I am talking about here is the abuse of phosphine.

**The Hon. J. R. JOHNSON:** But what is the advantage in the abuse?

**Mr YEO:** The advantage of the abuse is to have all those insects dead when they arrive at the end user. So they are fumigating in transport.

**CHAIRMAN:** Quicker action.

**Mr YEO:** Yes, quicker action. And, to dip them in water causes the phosphine to produce a gas over time. It reaches its highest levels within the seventh day. So it is producing the gas in the right situation for seven days, and then it declines. When you add water to it, it instantly reacts and produces those high parts per million which kill the adult insect overnight or within a day or so. So, what they are doing ---

**The Hon. J. R. JOHNSON:** Who is "they"?

**Mr YEO:** I would say the farming community, grain traders – anyone who trades grain between companies, from farm to port, from farm to the export ports, from farm to the dairies, from farm to the beef industry – any of those sorts of things.

**The Hon. J. R. JOHNSON:** When they arrive at your establishment and you have tested the product – and I think you say you got one out of seven that you passed – what happened to the other six?

**Mr YEO:** The other six were rejected at site.

**The Hon. J. R. JOHNSON:** But what happened to them?

**Mr YEO:** They returned to the farm.

**The Hon. J. R. JOHNSON:** And?

**Mr YEO:** It is out of our control then. The thing I am wondering about is how much control we have. What authority would you call for when these levels are so high? What right has anyone to contain that truck until safe levels were achieved? At the moment, there is not a great deal of power to lock that truck up because we do not own the truck.

**The Hon. J. R. JOHNSON:** Has the matter been taken up with the men's trade union or with the WorkCover Authority?

**Mr YEO:** We have not brought it up with the trade union, of course. I think WorkCover may be able to assist in this regulation.

**The Hon. J. R. JOHNSON:** But have they been taken up with the trade union?

**Mr YEO:** No.

**The Hon. J. R. JOHNSON:** Are the men covered by a trade union?

**Mr YEO:** Yes.

**The Hon. J. R. JOHNSON:** So it has not been taken up with the trade union that is there to protect their interests. Second, it has not been taken up with the WorkCover Authority, which is there to prevent accidents or help to prevent accidents of all types.

**Mr YEO:** We have not brought it up with WorkCover yet. The trade union is not really required, because we are here as managers for them, to look after their safety and welfare under the Occupational Health and Safety Act. We must try to supply a safe workplace, which we do with this monitoring. What we are saying is that what we are finding is only a small part of the problem. This stuff is being transported fairly regularly.

**The Hon. J. R. JOHNSON:** It may be worthwhile pursuing both of those avenues.

**Mr YEO:** WorkCover would be one of the best avenues and perhaps our next avenue.

**The Hon. J. R. JOHNSON:** You can decide that for yourselves. A bleak picture was painted of the effects of some of the chemicals that are being used. I think Mr Amey made the point. Do local health reports show up these calamitous situations?

**Mr AMEY:** Yes. The local Environment Protection Authority is quite aware of most of these cases that I refer to.

**The Hon. J. R. JOHNSON:** I will ask the question again. Do the local health reports show it up?

**Mr AMEY:** Well, if you call walking people evidence, yes. But the Health Department does not want to hear too much about it

**The Hon. J. R. JOHNSON:** If these people have sought help from the various health outlets, such as the hospitals or the private practitioners, and the effects are as they have been painted, have you not seen any reports from any of the local health authorities on that matter?

**Mr AMEY:** I do not think the Health Department or the local doctors will make any comment on it because they cannot actually prove it.

**The Hon. J. R. JOHNSON:** Mr Amey, I am asking you: Have you seen any health reports?

**Mr AMEY:** No.

**The Hon. J. R. JOHNSON:** You have not seen any?

**Mr AMEY:** No.

**The Hon. I. COHEN:** Was the name of the fumigant phosphine?

**Mr YEO:** Yes.

**The Hon. I. COHEN:** You clearly indicated the toxicity of the gas and the problems with transporting. Is there a toxic residue as well? You were saying that over a period of hours the gas would come off, do its job, and also be highly toxic to people and animals in the immediate area. What is the immediate to long-term effect of that? Did that grain truck go somewhere and sit for a while? How is its safety assessed after, say, a 48-hour period?

**Mr YEO:** It is re-tested for levels of gas, until the gas is dispersed into the atmosphere.

**The Hon. J. R. JOHNSON:** Is it re-tested back at your authority?

**Mr YEO:** No.

**The Hon. J. R. JOHNSON:** By whom is it re-tested?

**The Hon. I. COHEN:** Any receiving body? Would that be correct?

**Mr YEO:** Once they are rejected, they go back to farm.

**The Hon. J. R. JOHNSON:** So they are tested by the farmer?

**Mr YEO:** I would assume that the farmer has not got the technical or the instruments to test for phosphine levels.

**The Hon. I. COHEN:** Does it leave a residue after it has gassed off?

**Mr YEO:** No.

**CHAIRMAN:** If you have any supplementary information that may come to hand in relation to some questions that we have asked you, you are quite at liberty to send that information on to us. For example, if tomorrow someone were to give you some health reports to show either a greater or lesser incidence of abnormalities or illness in these particular areas, then by all means send those reports along. But we also sometimes ask some questions that are a bit more difficult to answer and that we would ask you to take on notice. The three in particular that I am about to ask you may be taken on notice. We will provide you with a copy of *Hansard* for you to check, and the questions will be in that transcript.

1. Is there the potential to alleviate your concerns surrounding the cotton development plan through the imposition of a buffer zone around the area?

2. What is your organisation's response to the economic benefits that the development of the cotton farming would bring to the region? In other words, what comments would you make on the extra jobs that would be created by the cotton farm, as against what jobs might be lost throughout that period of operation?
3. What would your position be with respect to a development application for another agricultural group, such as wheat or vegetables, that may use similar pesticides or pesticides that have as many problems?

If you have some quick answers on that, well and good. If not, would you take those on notice and send written answers to the Committee on those matters. How would you like to handle it?

**Mr NOSS:** The quick answer – and I would like to respond later in more detail – is that we live in an agricultural area, with wheat, vegetables and everything else being grown all around. We do not have a problem with that. We know that pesticides and insecticides are used. It is the sheer quantum and the time span of their use on particular crops that are causing our grave concerns. As to the economic benefit, I don't know. Maybe a dozen chippers will be used for a month every year. I have got 12 fellows, and it affects us. There are 12 full-time jobs. What was your other question?

**CHAIRMAN:** Buffer zones.

**Mr NOSS:** How big an area or distance do we need as a buffer zone? How are the sprays to be applied? Is it just by a ground rig? Does it have a skirt on it? I do not know.

**CHAIRMAN:** My understanding is that the development application suggests that they be ground rigs, except for wet weather, when it may be spread by helicopter. So you might like to take that on notice as well. I thank you very much for your time this morning.

(The witnesses withdrew)

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**JOHN FURNEY**, Flour Miller and Farmer, of 24 Meek Street, Dubbo, and

**PETER HENRY CONE**, Senior Area Manager, Cotton Australia Limited, of 44 Kamilaroi Road, Gunnedah, sworn and examined:

**CHAIRMAN:** Mr Furney, in what capacity are you appearing before the Committee?

**Mr FURNEY:** As a farmer.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Mr FURNEY:** Yes.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Mr FURNEY:** Yes.

**CHAIRMAN:** Mr Cone, in what capacity are you appearing before the Committee?

**Mr CONE:** As Senior Area Manager with Cotton Australia, representing John Furney.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Mr CONE:** I did.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Mr CONE:** I am.

**CHAIRMAN:** You said you are representing John Furney. You would also be  
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**Mr CONE:** Representing the cotton industry as well.

**CHAIRMAN:** If you should consider at any stage during your evidence that, in the public interest, certain evidence or documents you may wish to present should be heard or seen only by the Committee, then the Committee would be willing to accede to your request and take that evidence in camera. However, I would warn you that, whilst this Committee resolves to hear the evidence in camera and therefore treat it as confidential, Parliament always reserves the right to overturn the Committee's decision and make the evidence public. But you may have your evidence heard in private, as

opposed to in camera. Would either of you like to make a short statement first before we ask questions?

**Mr CONE:** I would, if I may. I propose to give a very brief outline of the proposal before the Dubbo City Council regarding the proposed cotton development on John Furney's property. By way of background information, John Furney acquired his property in the Rawsonville area back in 1976. It was one of a larger properties in that area. Most properties at that time were larger. Subsequently, a number of them have been subdivided. John's property, Oakben, remains whole by comparison.

In 1976 it had been developed in a small way for irrigation, primarily for the purposes of growing fodder for feeding lambs. Over the period 1976 through the mid-80s John Furney has developed it extensively for irrigation, during which he has grown crops including lucerne, soya bean, rye, millet, mung beans, wheat, sorghum and linseed. In 1998 John Furney decided to look at the possibility of expanding his options on his farm, particularly from the point of view of an additional rotation crop, and cotton was attractive both from the point of view of the current price at that time and because it simply slotted in with his existing system and did not require massive changes to his irrigation system or his normal farming practices.

In preparing to introduce cotton to his property, the Furneys subsequently found out that they would need a full development application, that would have to be put before the Dubbo City Council. In addition to that, they also became aware that the cotton industry would require that they prepare a best management practices document, which is standard within the industry at this stage. For the past three months John Furney has been putting things together to meet those two requirements.

In developing his best management practice program John Furney has advanced this fairly significantly. I think it is worthwhile to note the objectives that he has set out for that program. There are five major objectives. The first one is to develop Oakben into an environmentally sustainable irrigation property based on current environment management system principles. The second is to maintain Oakben as an economically sustainable rural production unit. The third objective is to develop 400 hectares of cotton on the property, to be produced in accordance with the Australian cotton industry's best management practices. The fourth objective is to minimise any impacts on neighbours, their properties and the general public as a result of farming activity on Oakben. And, finally, to introduce effective occupational health and safety procedures to the property.

In growing irrigated cotton on Oakben, very little change to the existing irrigation and farming systems is required. The irrigation set-up and farming system is much the same for lucerne and soya beans as the Furneys have been practising for a number of years. The only real major difference is that they are changing their seed type to cotton.

As part of the best management practice process, a spray and drift management plan is required to be put in place. It is a very comprehensive document, but a very practical one, that systematically identifies areas of risk to his neighbours, to the

environment and to any other relevant area. It specifically sets out procedures to minimise risk to those neighbours, et cetera. It also specifies individual people, be they regulatory authority people, be they agronomists, be they farm workers, et cetera. It specifies the responsibilities that each of those people has on the farm. Above all, it involves the Furneys approaching neighbours and discussing the proposed spraying regimes, et cetera, with them prior to the spraying season commencing.

In addition to that, the spray and drift management plan sets out specific parameters for monitoring things such as wind direction, wind speed and other meteorological data. It also specifies buffer zones for specific blocks on the property. In addition to areas of risk with respect to the riverine environment, the best management practice plan also identifies these in particular. The priority in a situation such as on Oakben is to put in place a storm water management plan, which basically is an emergency response plan as to how the irrigation system will be operated in the event of a large thunderstorm or a large rainfall event. It specifically ensures that the property has the capacity to store rainfall runoff and a system for managing it so that, in particular, water off the farm does not find its way back into the river or the riverine environment.

In planning to grow cotton on Oakben, John Furney has made a number of concessions, which are at considerable cost to his farm. These are aimed at minimising the risk to neighbours, the public and the environment. Those concessions include the planting of 100 per cent Inguard cotton, which is the trade name for genetically-engineered cotton. This specifically has been done to reduce the reliance on pesticide application, synthetic pesticide application. He has undertaken to withdraw one complete block of cotton closest to a concentration of small-acreage neighbours. He has planned extensive use of tall, forage sorghum crop buffers on boundaries to neighbours, firstly to reduce the potential for drift and secondly to provide a refuge for the Inguard cotton. He has undertaken not to use endosulfan, which is the primary insecticide currently used in the cotton industry, and he has also undertaken not to use a pesticide called Curacrom, which is a major problem from its odour problem.

As far as possible, all applications will be made using ground equipment. In the event that wet weather dictates, a helicopter may be used in that situation. There will be the installation of electronic weather-monitoring devices, and finally the implementation of a spray and drift management plan which includes consultation with neighbours.

In conclusion, I would like to draw to your attention that best management practice has been developed over a period of nine to ten years by the cotton industry following a major environmental audit of that industry. Out of that, procedures and planning measures have been put together which are now in the form of best management practice. Secondly, cotton is grown on a rotation basis. There is no such thing as a farm that grows only cotton. Specifically, soil management requires a very strict rotation, of which generally cereals and legumes are a major part.

The cotton industry has led the field in rural Australia in developing environmental management systems. Finally, the cotton industry leads Australia's

cropping industries in their research effort into pesticide reduction, insect pest management, system soil management, genetically-engineered crops, and the breeding of physical characteristics to make the crop less attractive to insects.

**CHAIRMAN:** A comment was made by a previous witness that the jurisdiction of this particular hearing is really to look at the process in the whole of the State of New South Wales for the future, and to consider what legislation might be brought in. It is not really in any way looking at your current development application that is before the Dubbo City Council. We would hope that what we do here today will not have any influence, either way, on that particular application. We are looking at it merely to give us a bit of an idea, for the future, on what is happening in other areas and considering whether what has happened here is a good or bad thing. For that reason, I would like to thank you both for coming along today. I appreciate that you may have been hesitant about doing so because it could be seen as inflaming the situation. I thank you for coming along and giving us the benefit of the process that we are going through today.

Are you aware whether this is the only council in the State that has provision within its local environmental plan (LEP) that the proponent has to have a development application for cotton growing?

**Mr CONE:** Yes, as far as I am aware.

**CHAIRMAN:** It specifically mentions cotton, does it?

**Mr CONE:** Yes.

**CHAIRMAN:** A couple of weeks ago, after we had Cotton Australia come to our hearing in Sydney, there was a comment, if I remember it correctly, that Monsanto had taken Inguard off the market for two years. Could you clarify that for the Committee?

**Mr CONE:** Yes. Monsanto is the commercial marketer who holds the rights to market the Inguard technology in Australia. They have not taken it off the market for two years. What would have occurred there is that their – and it is a very complicated process – but, basically, there is technology that has two toxic genes, technology that has four toxic genes, and so forth. The thing that you would be referring to is that Monsanto are holding off giving Australia the four-gene technology and that we are stuck with the two-gene technology. Basically, what the two genes versus the four genes means is that the four genes technology is stronger.

**CHAIRMAN:** And therefore you would use less of the four-gene pesticides?

**Mr CONE:** Yes.

**CHAIRMAN:** There was great concern by Cotton Australia and some others that it was a shame that it could not have been introduced quicker. But it is only a two-year period anyway, was it not?

**Mr CONE:** Yes.

**CHAIRMAN:** The buffer zones that you mentioned in relation to sorghum, what width are they?

**Mr CONE:** I might clarify this in regard to comments that you made earlier in relation to Oakben and the cotton industry. What we are applying in the cotton industry to Oakben is no different to what is being supplied to any other cotton farm. It is not a case of special requirements here. Extensively, throughout our existing cotton growing areas, we have been using buffers of very tall forage sorghum, which is roughly 10 feet high. What we are doing there is simply running a 16-foot combine width along the fence, which essentially is a physical barrier.

**CHAIRMAN:** Like a filter?

**Mr CONE:** Like a filter. But, again, a buffer is a fairly complex thing. There are several things that can constitute a buffer. It can be a physical buffer, such as our sorghum; it can be distance; and, typically in sensitive cropping areas, Inguard for example is not just grown in a paddock as a solid block. We strategically put it as a buffer in sensitive areas, so beside neighbours' properties we would put the Inguard there. So, as a buffer, we may have a physical forage sorghum buffer, backed up with a further buffer of Inguard cotton. There may even be open space there. So the buffer can be several things – giving distance and several different methods of reducing drift.

**CHAIRMAN:** In Cotton Australia's best management practice guidelines regarding approval to neighbours or notification to neighbours, does that apply to the immediate neighbour, or do you go right out?

**Mr CONE:** In the cotton industry at the moment, as a result of the National Registration Authority requirements applying to endosulfan, notifications are mandatory. Those notifications are something in the vicinity of 1,500 metres outside your property. In the case of ultra low volume formulations of endosulfan, then there is a scale, reducing back to 200 metres, for emulsifiable concentrate, which is the water-based large droplet type sprays. Those applications are subject to legislation, because there are label requirements to endosulfan. In a case such as we have with Oakben, we would apply those same requirements to all sprays, not just endosulfan.

**CHAIRMAN:** Is that 1,500 metres to a residence or to another property?

**Mr CONE:** To another property - to the boundary, I believe it specifies.

**CHAIRMAN:** You mentioned a rotation practice. The Committee has heard before that in rice irrigation areas they have a one-to-three rotation: that is, in any one year, two-thirds of the area is out of production, and only one-third is in production. Is there a similar thing with cotton rotation?

**Mr CONE:** It is very much a set rotation. It is aimed specifically at soil management, improving soil structure and so forth. As a general rule, it is three years cotton, two years of cereal crops, generally wheat, and one year or maybe two years of legumes.

**The Hon. I. COHEN:** Mr Cone, you went into some detail about the strategies that are being undertaken, particularly in regard to neighbours. How do the neighbours feel?

**Mr CONE:** That is part of the process when the plans are put in place. That will be John Furney's responsibility.

**The Hon. I. COHEN:** Are you getting support from the neighbours?

**Mr CONE:** Not that we are aware of, at this stage, no.

**The Hon. I. COHEN:** Are you getting opposition from the neighbours?

**Mr CONE:** We have not approached the neighbours at this stage.

**The Hon. I. COHEN:** Are you not aware of their feelings about a development like this?

**Mr CONE:** We are aware of their feelings through the media reports.

**The Hon. I. COHEN:** You are?

**Mr CONE:** Yes.

**The Hon. I. COHEN:** And what are those reports of their feelings?

**Mr CONE:** Negative.

**The Hon. I. COHEN:** Despite these defensive strategies that you have put in place, are you still going to be aerial spraying at any time?

**Mr CONE:** It is possible that aerial spraying could take place in a situation of very wet weather, where we could not drive a ground-based vehicle on the property.

**The Hon. I. COHEN:** Who would be responsible if there was a study on this type of development that identified that there was an escape of chemical, regardless of how you are doing your application, into neighbouring farms and into their rainwater tanks? Who would be responsible? Would you take responsibility for that?

**Mr CONE:** We would have to take ultimate responsibility. The legislative responsibility, if that occurs, falls into the hands of the State's Environment Protection Authority. So, if it was obvious that there had been a drift outside the bounds of the property, the Environment Protection Authority in the first instance would be obliged

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to investigate that one. The cotton industry would also investigate it because it would be contrary to our best management practice principles.

**The Hon. I. COHEN:** We have been hearing in the media some horror stories about this in the cotton industry. Are you concerned?

**Mr CONE:** We are concerned, and that is why we are working on putting these measures in place.

**The Hon. I. COHEN:** Do you think your strategies are foolproof?

**Mr CONE:** No strategy is foolproof. But we have a lot of experience and research to draw on, and we have to start somewhere.

**The Hon. I. COHEN:** Given the substantial density of the population immediately around the proposed development, does that not concern you?

**Mr CONE:** Anywhere there is a risk of contact with the community concerns me, to the point that I would be very insistent that very tight rules are followed. The other thing that gives me some confidence is that we have cotton growing on some 1,500 farms in eastern Australia, and we have a lot of areas such as Moree, Gunnedah and Narrabri where cotton is grown much closer to the towns than the proposed development is to Dubbo, and without major problems.

**The Hon. I. COHEN:** When you say closer to those towns, are you saying closer to any other habitation? Let me get this clear. I understand that the area you are talking about may not be the town as such, but it does have quite intensive land use and also habitation immediately surrounding it. So is that a bit of a fudge on the concept?

**Mr CONE:** No. If you take Narrabri, for example, there is a cotton crop within two kilometres of the main population area of that town. At Wee Waa there would probably be cotton crops grown within a kilometre of the residential area.

**The Hon. I. COHEN:** I was interested that you mentioned that you are actually using Inguard cotton as a type of buffer zone because of the reduced need for pesticide. I understand that the reduction is about 30 per cent. Is that correct? You are still using pesticide on the Inguard cotton first generation.

**Mr CONE:** Yes.

**The Hon. I. COHEN:** If you are still using pesticide on cotton alongside the Inguard cotton first generation, still using two-thirds of the quantity of chemicals that you are using on the other crops, does it not concern you that after a number of generations there could be significant problems and that you may have to use an increased amount of pesticide on a genetically-engineered crop?

**Mr CONE:** That certainly is a concern. The cotton industry has a specific scientific committee, called the Timms committee, which specifically monitors that

situation. So Inguard cotton is not just available to anyone who wants to use it; it has to be monitored, it has to be limited in the quantity so that we do not build up resistance to the point where more chemical would have to be used to overcome that resistance.

**The Hon. I. COHEN:** You have not achieved that in any other area of cotton production, have you?

**Mr CONE:** I am sorry?

**The Hon. I. COHEN:** To actually control the build-up of resistance to chemicals over generations. I am really concerned about that. We see a new you-beaut system of genetically-engineered cotton, and we say that we are using less pesticide, but over a period of a number of crops we end up with a compounding effect of a genetically-engineered product and a significant increase in pesticide usage. Would you agree that that is a reasonable fear?

**Mr CONE:** That is a possibility. In the real world, you have to look at the assumption that the cotton industry is moving towards reduced reliance on pesticides to reduced-use pesticides. We have a very sophisticated research program that focuses heavily on insect pest management and that uses a range of tools, such as predatory insects, biological insecticides such as bacillus thurengensis.

**The Hon. I. COHEN:** What is the common name for that?

**Mr CONE:** I do not think there is one. Dipel is the trade name for that product. We have very successful commercial trials of feeding compounds, where we actually apply foodstuffs to crops from aircraft to feed the predatory insects, in order to build up large populations of them. So that we are actually managing predatory insects to control detrimental insects, which predominantly are heliothis. So it is an overall program.

Inguard cotton is only one part of that reduction, as are feed sprays a part of it. A very important aspect is the scouting and monitoring, whereby each cotton farm hires a qualified agronomist. They just have to do that. That agronomist looks at the crop, on average, every two to three days, counts the eggs that have been laid by the detrimental insect, mainly the heliothis, counts the eggs numbers and the presence of the predatory insects, and balances them up. So it is just not a case of, "It's Monday morning, so it is time to spray."

I have heard comments that we spray every three days. That is simply not correct, because we would not spray for three days running for an insect that has a life cycle of 14 days. That would simply be a waste of money. So we have got all these insect pest management tools, where we are actually juggling measures. In effect, the last resort is to apply synthetic chemicals such as endosulfan.

**The Hon. I. COHEN:** You are actually mixing two modalities. Has the industry conducted studies or made any assessment of the value, economically and socially and environmentally, of developing an organic genetically-engineered-free

production process? I understand what you are saying about predatory insects and so on, but you are really mixing the processes there because the effectiveness of that is in an organic production mode, would you not agree? And has the industry looked at that?

**Mr CONE:** The answer to that is yes, the industry has looked at pure organic cotton production. In fact, we have had probably three major cotton producers attempt that. They have since withdrawn their attempts, simply on the economic ground that they could not produce an economic crop on current-day organic processes.

**The Hon. I. COHEN:** Did they factor in environmental impacts and downstream impacts in terms of the cost to the community?

**Mr CONE:** Yes. But I must qualify that. They have attempted organic cotton production. It did not work, economically, because the insects simply beat them; they could not get an economic yield from the crop to cover their costs. But that does not mean that that has been pushed aside as a bad idea. That is still being fostered, because all these things do not happen overnight, and research is ongoing. Some of the lessons picked up out of the organic experience are now being picked up in the insect pest management. Trapping crops, for example, is one thing that we have pulled out of the organic experience and put it into the insect pest management program.

**The Hon. I. COHEN:** Does the region supply cotton seed oil for the vegetable oil industry?

**Mr CONE:** Yes.

**The Hon. I. COHEN:** Is the production of that differentiated from the normal cotton production? Is that a separate crop altogether, or is it part of the major crop?

**Mr CONE:** It is part of the major crop.

**The Hon. I. COHEN:** So, is there a proper assessment of it as a food crop at the time of production in terms of pesticide usage – different from the levels of scrutiny that are occurring for the cotton crop that is going to be used for material production?

**Mr CONE:** Yes.

**The Hon. I. COHEN:** Who does that?

**Mr CONE:** That is done through our CSIRO people, who monitor our food quality and so forth. That has to be watched very closely, because the seed is also used as a stock food, along with the hulls and so forth. Of course, with the bad experiences we have had with Helix and so forth, we have to be very careful about keeping the tab on that one.

**CHAIRMAN:** We have a few questions that we would like you to take on notice and that you might respond to in the couple of weeks. Rather than you try to

take a copy of them, we will give them to *Hansard* and they will be included in the transcript. I understand that you want to go into a short private session after that.

**Mr FURNEY:** Yes.

**CHAIRMAN:** The questions on notice to Mr Cone are:

1. Can you explain any potential advantages to the community that are available from the proposed developments?
2. Does Cotton Australia see any potential impacts of the cotton development upon the region's population, property or environment?

The questions that I would ask Mr Furney to take on notice are:

1. Could you outline the reasons behind your decision to lodge a cotton development application in the region?
2. What is your response to the opposition by people in the area to the introduction of cotton farming?
3. What measures have you taken to minimise any impact of pesticides on persons, property or the environment in your development proposal?

(Evidence continued in private session)

**Evidence of PETER CONE and JOHN FURNEY taken in private session:**

**CHAIRMAN:** John, did you want to make any comment or make any statement?

**Mr FURNEY:** No. I think Peter has said enough about what we are doing.

**CHAIRMAN:** There is a fair bit of local interest. The reason that the remainder of your evidence will be heard in private, as opposed to in camera, is that the evidence can still be used publicly, but that procedure obviates the opportunity for hecklers to disrupt the proceedings. I invite members of the Committee to ask questions.

**The Hon. I. COHEN:** Mr Furney, I might ask you a question. Have you, in your experience, witnessed ill effects on any of your workers in the industry in terms of contamination through chemicals used in cotton growing?

**Mr FURNEY:** No.

**CHAIRMAN:** I might just clarify that. Mr Furney is not in the cotton industry yet.

**The Hon. I. COHEN:** So you have not started cotton growing yet?

**Mr FURNEY:** No.

**CHAIRMAN:** Nor is the industry in this district, but it is close by at Narromine.

**The Hon. I. COHEN:** One of you mentioned about irrigation. How much of that is going to be on farm and how much of it will be by way of extraction from the river?

**Mr FURNEY:** It will be all from river water. We have got an irrigation licence to water from that area. We have an area of around 400 hectares of cotton.

**The Hon. I. COHEN:** In doing that, do you take into account the effects on the quality of the water flow in the river systems?

**Mr FURNEY:** Yes. We have allowed for that in the best management practices for cotton farming.

**CHAIRMAN:** In this particular area, there are no new irrigation licences that have been issued, not this decade anyway.

**The Hon. I. COHEN:** So you are functioning on your existing irrigation licence for this production, are you?

**Mr FURNEY:** Yes. We have been here since 1976. We are using the same irrigation, the same water and the same licence on the same ground. The only difference is that we are going to put a different seed in the ground.

**The Hon. I. COHEN:** Have either of you had any experience with non-irrigated cotton?

**Mr FURNEY:** No.

**Mr CONE:** I have a lot, yes.

**The Hon. I. COHEN:** Is it successful?

**Mr CONE:** It is successful in the right climate. You are reliant on natural rainfall to supply your water. In the Namoi Valley, for example, in the Gunnedah area, last season – because we had masses of rain in August, September and October – the dryland cotton was almost as good in some cases, yield-wise, as irrigated cotton. However, the previous year only about two crops survived because of lack of rain at a critical time. So non-irrigated cotton growing is very risky. The inputs are much less, however, the risk of getting a good yield is high.

**The Hon. I. COHEN:** In terms of the proposed development, what percentage of the cotton would be grown from genetically-modified seed, and what percentage would be seed owned by non-Australian companies or multinational companies?

**Mr CONE:** One hundred per cent of his crop is going to be Inguard.

**The Hon. I. COHEN:** One hundred per cent?

**Mr CONE:** Yes. He has got approval specifically to do that.

**The Hon. I. COHEN:** I thought you had said it was important not to go in wholesale with Inguard.

**Mr CONE:** Yes. But, taken over the Narromine area, other farms have been cut back there to allow for this. The maximum that we allow for Inguard in any one season this coming year will be 50 per cent. So that, in the valley, 50 per cent has to be Inguard and 50 per cent has to be conventional cotton, in order to maintain a susceptible gene pool. So, in this case, John has been extended the privilege of having 100 per cent of his farm, at the expense probably of someone else's farm.

**The Hon. I. COHEN:** In your situation, have you seriously looked at organic cotton?

**Mr FURNEY:** We have had a look at it, but all the consultants say it is not quite ready yet.

**The Hon. I. COHEN:** Could I say this. I have been looking at an advertisement in a glossy magazine in the city about organic tampons. There appears to be a colossal market for this, absolutely huge on an international scale. When you take into account that Sainsburys and other significant retail importers in the UK et cetera are going ballistic over the genetically-engineered issue, it really is something worth giving serious consideration to.

**Mr CONE:** There were three properties that we had. One was out here at Narromine and two of them were in Queensland. They identified that very motive: that, if they could produce organic cotton, they would make a killing. They went into it on the basis: Okay, we are going to lose three-quarters of our yield, but we will get a price premium that will compensate for that. But John O'Brien's lost the lot of his crop at Narromine; he just did not have anything to pick. So he has gone back to normal work. But he still has not lost sight of that premium price if he could actually grow organic cotton.

**The Hon. I. COHEN:** Are you concerned that your current usage on the cotton crop could negate your opportunity, at a later date, to go organic on that product?

**Mr FURNEY:** If you can go organic, grow it, and get a better price for it, you will do it.

**The Hon. I. COHEN:** You may not get a better price per hectare, but you may well find yourself with a sustainable crop.

**Mr CONE:** In overall cotton production, we spend something like two-thirds of our yield on insect control. We would dearly love to be able to get rid of that cost. That is the reason for the sharp focus on insect pest management and better ways of weaning ourselves off synthetic chemicals. Certainly, over the last ten years, we have come a long way. When we first kicked off growing cotton in Wee Waa back in 1961, it was sprayed up to 24 or 28 times per season. On average, in the Namoi Valley last year, it was a total of nine applications. So it is research that has done that.

(The witnesses withdrew)

(Public hearing resumed)

**DOUGLAS ALLAN HERD**, Director, Environmental Services, Dubbo City Council, Church Street, Dubbo,

**PAUL JAMES ANDERSON**, Manager, Building and Development Services, Dubbo City Council, Church Street, Dubbo, and

**JOHN STANLEY DAVIS**, Manager, Environment and Health, Dubbo City Council, Church Street, Dubbo, sworn and examined, and

**GREGORY JOHN GEOGHEGAN**, Manager, Strategic Planning, Dubbo City Council, Church Street, Dubbo, affirmed and examined:

**CHAIRMAN:** in what capacity are you appearing before the Committee?

**Mr HERD:** As Director of Environmental Services, Dubbo City Council, so as to give you information on behalf of the Dubbo City Council in respect of an application for cotton farming in Dubbo.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Mr HERD:** I did.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Mr HERD:** Yes, I am.

**CHAIRMAN:** John Davis, in what capacity are you appearing before the Committee?

**Mr DAVIS:** As Manager, Environment and Health.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Mr DAVIS:** Yes.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Mr DAVIS:** Yes.

**CHAIRMAN:** Paul, in what capacity are you appearing before the Committee?

**Mr ANDERSON:** As Manager, Building and Development Services, Dubbo City Council.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Mr ANDERSON:** I did.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Mr ANDERSON:** I am.

**CHAIRMAN:** Greg, in what capacity are you appearing before the Committee?

**Mr GEOGHEGAN:** As Manager, Strategic Planning, Dubbo City Council.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Mr GEOGHEGAN:** I did.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Mr GEOGHEGAN:** I am.

**CHAIRMAN:** If you should consider at any stage during your evidence that, in the public interest, certain evidence or documents you may wish to present should be heard or seen only by the Committee, the Committee would be willing to accede to your request and resolve into camera and take your evidence confidentially. However, I would advise that the Parliament has the right to override our decision to take your evidence confidentially and make it public. I remind everybody that we are not here to look at the merits of a particular application that is before the Dubbo City Council. The Committee would particularly like to know what made Dubbo City Council decide to require a local environmental plan to start with, as it is one of the first councils to adopt that course. So it is the big picture that we are looking at, not an individual application. Would you like to make an opening statement?

**Mr HERD:** Thank you. Just very briefly, the reason we are here today is to give you a brief overview of the application that has been presented to Dubbo City Council in respect of cotton farming in the local government area. I would take you through it quickly, and deal particularly with the terms of reference that the Committee has given us. We believe it falls within those terms of reference. I have asked three of my managers to come here so that, if there is any question that you would like to ask on the detail of certain aspects of this application, or how it got there and what it is up to at the moment, they will be able to answer those questions for you.

There is one other aspect. John, the Manager of Environmental Health, might have some other issues besides cotton farming that he may wish to deal with and give you some information. It is not necessarily related to cotton farming, but to other

issues within your terms of reference. I do not know whether we can proceed on those lines or not. But we will deal with that when we get to that point.

**CHAIRMAN:** I am certainly interested in hearing evidence on the disposal of chemical drums and a whole host of other issues that relate to the management of councils and their operations and the operations of their residents.

**Mr HERD:** There is a plan that I can tender to you. This is the area in question so far as the development is concerned. I think you may have a black and white that has been produced to you, but it may be easier if you have the coloured copy.

**The Hon. J. R. JOHNSON:** Is it the area shaded in green?

**Mr HERD:** No. It is the area that is outlined in the dark border. If I could make a statement on how we got to where we have on this particular development. I would open by saying that the Dubbo local government area historical situation is that there is no previous experience of cotton farming as part of the established agricultural environment. Consequently, irrespective of the potential scope of interpretation of the terms “intensive agriculture”, in theory or practice in other areas, within the area of planning control exercised by Dubbo City Council as the responsible authority there is no known case of cotton farming established as an “existing use” or anything like that in the Dubbo local government area as far as we know.

Cotton farming is not part of the environment within which the agricultural enterprises operate in the Dubbo local government area. In the course of preparation of our rural LEP in 1997, the consultations with the rural land owners identified concerns (those related principally to the agricultural practices necessary to produce a cotton crop, especially the intensive use of pesticides and the consequences to nearby crop and animal farming enterprises) expressed by them about the potential impacts on existing agriculture should cotton farming be introduced into the area of Dubbo City Council’s planning responsibility as a new agricultural enterprise. That was the public consultation process by which we arrived at a particular decision insofar as our strategy was concerned.

In response to the concerns expressed by the Dubbo community, and having regard to the Dubbo City Council’s duty of care on behalf of that community, Dubbo City Council ultimately recognised that cotton farming was not currently a part of existing “agriculture” or “intensive agriculture” in Dubbo, and resolved that, before it could become so by de facto means – that is, through being introduced – to define cotton farming independently of those generic terms. Again, that is just reiterating where we have come from.

Council’s action therefore was to ensure that the issues were carefully considered, and not to prohibit cotton farming in Dubbo, in good time prior to any proposal to actually farm for that purpose. So it was more of an issue as far as the community was concerned, so we took on board their concerns and we explored their issues and determined that, rather than prohibit the actual cotton farming in these areas,

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at least it should be actually permitted, but that the council should have a look at it and get the consent required before any determination can be made.

A number of the issues that people brought up can be explored at a later date if that be the case. That was our concern. In other words, we are treading very carefully, and we are trying to be unbiased as far as the whole of this development is concerned. Obviously, we are the people in the middle who have got to make the decision one way or the other, as far as whether it should or should not happen, given the circumstances of the case. So that is, very briefly, where we got to to determine that cotton farming was an activity that did require council consent.

I would now give a brief history of where the application has come from. I think some of that information may have been imparted to Stephen at one stage. We did get our development application for the cotton farming. The proposal was to plant cotton over an area of about 675 hectares, with up to 400 hectares of cotton being planted with cotton during any one season. The proposed cotton crop was to be irrigated. Crop spraying by ground rig or by helicopter application was to take place in wet times. The property was known as Oakben. A combination of cotton and Inguard was to be planted. It was also to follow best management practices.

Since that time there has been a minor amendment to the application, whereby they are putting in some buffer areas. But, essentially and in principle, it is still the same application over a slightly different area of land. The property is still Oakben and there is still another property just down the road from there but still in the Rawsonville area. We undertook the public advertisement and notification period that we considered appropriate at the time. We thought it should be advertised; we thought it should be publicly notified simply because of the concerns and the interests that the people in that area had at the time that we were formulating the strategy and, in turn, the local environmental plan. So we advertised that, sent out letters, and we received responses from 1,289 people. I think out of that roughly 1,300 people, 1299 were basically against it and one was for it.

We then referred the information that we had before us to the government authorities for their advice. They are under no obligation to give us any information or to assist us if they did not so desire. There were no licences or approvals that were required from the government authorities. But they, in their wisdom, have come along and agreed to help us and give us advice in respect of the issues that have been raised by various people, and there are quite a number of people. The government authorities, in turn, have also got their own detailed and specific information on some of these issues, and we are very interested in getting hold of that material.

We had a meeting with the applicant, the developer and the representatives of the council and the government authorities in mid-May, and the government authorities who were at that meeting explained the issues from their specific points of view, and as a result of that meeting the developers went away to address quite a few of those issues. To date, of course, we have not had any meeting or response to those issues. We are still awaiting that information to come back so that we can better assess the application with the information that we do have before us.

It is possible that we still might not have sufficient information to be able to properly assess it, and it may have to go back to the developers or the applicant. We are not sure until we get this further information. But, as I say, we are in the middle of the developer and the people who are objecting to it. We have got to be very careful what course we take, and we have got to be very certain about the information that we do gather. The council then needs to make a determination on that application, given all the information that is before the council.

As I said earlier, I have asked John, Paul and Greg to be here. They are specifically here to answer any questions that you may have on details relating to the application. Greg, who is concerned with the strategic planning aspect, looked at the strategy and the LEP; and Paul and his branch have responsibility, on behalf of the council, to assess the development information. John, of course, from an environmental point of view, has issues that do arise from time to time, and he has another area of concern that he wishes to discuss with you.

**CHAIRMAN:** Perhaps, John, we might go on to some of those other areas of concern that you have.

**Mr DAVIS:** The areas of interest do not relate to the cotton development, but I think they fall within the terms of reference of the Committee. Firstly, I would like to read a statement that I have prepared.

Governments, the Murray Darling Basin Commission and government agencies are presently calling for innovation in farming in an attempt to halt, and over time, reverse land degradation, which is evident to most of us and of major concern for future generations.

I am concerned, as a result of my own dealings with officers of the New South Wales Department of Land and Water Conservation that for defendable, but in my opinion unwarranted, argument previously proven land use practices may not be trialled at a government level in western New South Wales. As an example, I would advise that regional landowners, field workers and scientists are agreed to a proposal to trial proven land management techniques proposed by Mr Peter Andrews of Tarwyn Park, Bylong. Those trials are proposed to be in the Dubbo area.

Assistance for the proposed trial has been denied at a regional level by the department. This is the second time such denial of opportunity has occurred with respect to this matter. I believe that departmental officers are not being adequately guided to make decisions on innovation, and accordingly real opportunities to advance sustainable land management are being lost.

Secondly, I would like to refer to an incident in relation to pesticide management. A complaint was received within the last few years from within the Dubbo City Council area regarding a claimed chemical sensitisation occurring from previously living among intensive agricultural activities in another rural centre and that local domestic activities, such as spraying, within a residential area were actually

contributing to that chemical sensitivity. That is one issue that has been raised but that has not been raised before the Committee.

Thirdly, I would like to raise the issue of the "Drum Muster" program. I assume that the Committee is aware of the Drum Muster program. For those of you who may not, I will speak about this matter. The Drum Muster program was organised to assist in the collection of used chemical containers on farms. The responsibility for Drum Muster was placed upon local government. Councils had tried to work with the Drum Muster organisation to make this possible, but unfortunately there have been a lot of problems in relation to adequate cleaning of the chemical containers.

There are 29 councils here in western New South Wales involved in a regional waste co-operative called Netwaste. We are not getting involved with the Drum Muster program at this stage because of an incident recently that we were told about in Gunnedah, where a number of drums were collected and shredded and were found to be still contaminated and not useable in another form. So the Drum Muster program, for all its good intentions, is very difficult at this particular point to implement. It is a pretty important issue.

**CHAIRMAN:** How do you see it being corrected? How do you solve the problem?

**Mr DAVIS:** At this particular point in time we have got to ensure that the chemical containers are cleaned to a standard that is suitable for their proposed use. We intended, through Netwaste, to offer the Drum Muster organisation the opportunity to work directly with contractors who could provide a use for the shredded and processed material, but Drum Muster has said it cannot deal directly with contractors because of controls within the Environment Protection Authority and that it is necessary for local government to be involved.

Local government is not in a position to provide those end markets for these products. It seems to me that we have a situation where we are being asked to collect the drums, process those drums, but, at the end of the day, the product cannot be used. I really do not know what the answer is.

**CHAIRMAN:** What is regarded as suitable cleaning? Is it triple lock, or what?

**Mr DAVIS:** Triple rinsing and piercing the drums. But it does not seem to be doing the job.

**CHAIRMAN:** I thought we were told in Sydney that the drum muster was supposed to be done by the agents who sell the chemicals. So they are actually asking the councils to do that now, are they?

**Mr DAVIS:** They are asking the council to be part of the process, to act as the middle men to provide the collection facilities and to work with the contractors.

**The Hon. J. R. JOHNSON:** You talked about the Drum Muster organisation. What is the organisation?

**Mr DAVIS:** I am not quite clear on that. We act directly with a particular gentleman who represents Drum Muster. Drum Muster, I believe ---

**The Hon. J. R. JOHNSON:** Is it a private venture, or a co-operative of various councils, or what?

**CHAIRMAN:** I think it is the chemical companies themselves.

**Mr DAVIS:** The chemical companies are using the Drum Muster program as a way of bringing the chemical containers in.

**The Hon. J. R. JOHNSON:** They are using the program, but who is the causing cause of it?

**Mr DAVIS:** I do not know what the genesis of the program is.

**The Hon. J. R. JOHNSON:** Has it got a headquarters or an office?

**Mr DAVIS:** The Local Government Association has offered its approval to the system but, as far as I know, we are only dealing with a gentlemen via a mobile phone.

**CHAIRMAN:** You might take that on notice and get some more information on that. We will also ask Peter Howat from Nufarm about that.

**Mr DAVIS:** I would appreciate that.

**CHAIRMAN:** I know that the Drum Muster did not work, but how was it proposed to work? Were the farmers to bring their chemical drums in and leave them at the tip at a certain spot?

**Mr DAVIS:** That is correct, yes, on a certain day. There were a number of ways that it could be administered. Then a contractor would come round, shred the drums and would be responsible for the disposal of those drums.

**CHAIRMAN:** It is a pity it does not work, because empty drums are a major source of contamination.

**Mr DAVIS:** I agree.

**CHAIRMAN:** Most farms end up with numerous drums, and if they are near the river, as soon as there is a flood we end up with a slight blockage in the river caused by a number of trees, you can get 20 or 30 chemical drums sitting in the middle of the water.

**Mr DAVIS:** That is correct.

**CHAIRMAN:** There has got to be a solution to that problem. Is there any other comment before we go to questions?

**Mr ANDERSON:** I have no specific comments, no.

**CHAIRMAN:** Greg, have you got anything to enlighten the Committee on how you, as a strategic planner, incorporated this proposal in the LEP to include cotton? I presume it was not as a result of concern that you did not like cotton per se, but that it was to do with chemical use associated with it.

**Mr ANDERSON:** The history of this goes back about four years. The process of preparation of what is now the 1997 rural LEP began in 1995 with a series of three rounds of community meetings throughout the rural area. There were about 25 meetings in all. We went out with a quite open mind as to where we were going to go ultimately, initially with a strategy and then the LEP which would give expression to that.

The issues raised by the community ultimately drove many of the provisions of the LEP. Perhaps the most unique of those is the ultimate status of having defined cotton farming as a specific use and assigning it a consent status. That came specifically from the repeated concerns expressed by the rural attendees at those meetings – for the most part, people who lived on the land or who worked the land. Their concerns derived principally from pesticide use and practices related to their use, and their concerns about conflict – conflict with their own agricultural enterprises; and, secondly, but I guess more by reputation than by any specific scientific evidence that was available to them or to us, the allied concerns relating to health and so forth.

So, as a result of those concerns, we drafted an LEP which identified cotton in the manner you see. That is ultimately what was exhibited. At the time of the exhibition of that LEP we received no expressions of concern as a consequence of that exhibition relating to that proposed status of cotton farming.

**The Hon. J. R. JOHNSON:** Mr Davis, is there any intensive spraying in this area on any other properties?

**Mr DAVIS:** It has not been brought to council's attention if there is. But I imagine there would be seeing there is intensive agriculture here.

**The Hon. J. R. JOHNSON:** We have been told that there are numerous health risks. I want to know whether it is fact, or whether it is hearsay, that there has been deterioration of certain people's health, and more particularly on a regional basis. If there are considerable numbers of people affected by aerial spraying, among others, would that phenomenon be reported to the local area health boards and would that information be made available to the councils?

**Mr DAVIS:** I have not been made aware whether that sort of information is available to the council in relation to the specific development. We are still collecting evidence in relation to those matters.

**The Hon. J. R. JOHNSON:** It was said that this Drum Muster organisation would undertake the shredding of the drums. I take it that they are all metal drums. It was said, however, that the end product could not be used for their proposed use? What is their proposed use?

**Mr DAVIS:** My understanding in relation to the incident in Gunnedah was that the drums were plastic and that the shredded material was intended for re-use in children's play equipment as a recycled plastic product, but the product was found to be at a level of contamination that was not suitable for that use.

**The Hon. I. COHEN:** Could you let the Committee know if you think that councils have the expertise and resources to effectively manage the issuing of penalty notices as outlined in the Environment Protection Authority's discussion paper.

**Mr DAVIS:** I could not comment on that without further investigation.

**CHAIRMAN:** You might like to take that question on notice.

**Mr DAVIS:** I certainly will.

**The Hon. I. COHEN:** I appreciate that, thank you. I wonder what occupational health and safety measures council adheres to in relation to the use of pesticides by council.

**Mr DAVIS:** Council is involved in pesticide use in our Parks and Landcare Division. We have two codes of practice: one in relation to weed spraying on parks and ovals, and the other one is in relation to weed spraying for noxious plants. Both those documents are available to the Committee if it so desires.

**CHAIRMAN:** Would you mind tabling those?

**Documents tabled.**

**Mr DAVIS:** Dubbo City Council also has a management plan for orphan hazardous materials. So, if there are hazardous materials that are found on the side of the road from time to time, we have a plan for dealing with those issues as well. That document also is available.

**Document tabled.**

**The Hon. J. R. JOHNSON:** Does that happen often?

**Mr DAVIS:** No. I would suggest that in the last five years we would not have had more than a handful of incidents.

**The Hon. I. COHEN:** Does the council receive complaints from workers using chemicals? If so, how many complaints are received? Do you receive complaints from the community expressing concern about chemical use?

**Mr DAVIS:** I am not aware of any complaints from workers in that regard. That is another section of council that would handle that. But we can take that question on notice as well, if you so desire.

**The Hon. I. COHEN:** Thank you. I would appreciate that.

**Mr DAVIS:** Once again, without having the figures in front of me, I would suggest that there would not be more than a handful of complaints related to chemical usage over the last five years. However, the issue of spraypainting in residential areas has been an issue. But I do not think that is covered by the terms of reference of this Committee.

**The Hon. I. COHEN:** Have there been any reports of damage to other crops from spray drift at all?

**Mr DAVIS:** I am not aware of any.

**The Hon. I. COHEN:** In terms of release of contaminated tail waters, have you had any complaints regarding this being a breach of the New South Wales Clean Waters Act?

**Mr DAVIS:** I cannot think of any instances at this stage. I can certainly check that matter out through our records.

**The Hon. I. COHEN:** If you might take that matter on notice as well.

**Mr DAVIS:** I will. But, in relation to the previous question ---

**The Hon. I. COHEN:** Damage to adjoining crops from spray drift.

**Mr DAVIS:** Yes. I have recalled that an incident did occur where a landowner advised that the council spraying regime on the road had caused some problems to his grapevines.

**The Hon. J. R. JOHNSON:** Had it?

**Mr DAVIS:** It was some time ago, and it was not investigated to my knowledge. It was brought to my attention well after the event.

**The Hon. I. COHEN:** Is your council aware that some other councils in New South Wales have actually banned roadside spraying? Bellingen and Byron are two that I know of.

**Mr DAVIS:** I am not aware of that. But that may be known by our Parks and Landcare Service. I am not personally aware of that.

**The Hon. I. COHEN:** Would you be interested in investigating that and alternatives methods of dealing with the problem?

**Mr DAVIS:** Council is currently developing an environmental management plan for the city which is intended to rationalise issues that are relevant to spray drift, and we will be looking at all methods of control. Certainly, that will be an issue worth following up.

**The Hon. I. COHEN:** We had some discussion about the pesticide containers and their disposal. Is there an issue, or potential issue, in the council's opinion, in the burning of the stubble and the burning of containers that have not been stored? Is that a significant issue?

**Mr DAVIS:** It is something that has not been talked about at this stage.

**CHAIRMAN:** You raised the issue of residential pesticide use, whether it be for spraying fig trees where the spray might blow over the fence or onto vegetables in a backyard and perhaps even spraying for spiders and ants. What comments would you care to make to the Committee on those issues? Do you get many complaints about those sorts of things?

**Mr DAVIS:** No, we do not get a lot of them. I think it is a community education issue. Those people that are sensitised, I think, need to make their neighbours aware of what is going on. Perhaps it is appropriate for council to become involved in that process of education on the use of pesticides. I think it is a community issue that needs to be dealt with by the community, and we can be of assistance there.

**The Hon. I. COHEN:** What is your opinion regarding a minimum that residents, school bus routes, waterways or areas of environmental significance should be away from pesticide application in order to avoid spray drift? Do you have a policy on that?

**Mr DAVIS:** No, we do not. My own opinion is that different circumstances warrant different buffer zones and there is a lot of work that would be required before we could suggest anything there.

**The Hon. I. COHEN:** A previous witness who appeared before the Committee today mentioned that the application was dispensing with the aerial spraying from aeroplanes but that in certain circumstances a helicopter would be used. Has the council investigated the impact of that? I am wondering whether helicopter usage is a step forward, or whether the downdraft could create problems of its own. Does council have any opinion on that?

**Mr DAVIS:** Paul might be able to answer that.

**Mr ANDERSON:** That is one of the parts of the additional information that we are seeking from the applicant at this stage. There is some concern that application of chemicals by helicopter may have an impact that is as adverse as there is by fixed-wing aircraft. But, as I say, we are in the process of gaining additional information from the applicant in that regard. We do not believe that we have the expertise to answer that question at this stage.

**The Hon. I. COHEN:** Do you have any other area that you can call on for that expertise? Have those studies been done? Given that cotton is such a significant industry, has it been trialled in the United States? And are there reports on spray drift resulting from different methods?

**Mr ANDERSON:** I am not aware of a trial being done anywhere else in Australia or in the US. Under the best management practice guidelines that are issued by Cotton Australia, there is a little bit of information in there on cotton spray drift and the control of spray drift. In respect of the particular application before Dubbo City Council at the moment for the commercial growing of cotton at Oakben, there is some information that has been provided by the applicant in a draft format for a spray drift plan. That illustrates how this applicant intends to control spray drift in respect of his particular applications.

**The Hon. I. COHEN:** Who is responsible if that goes through the EIS and is given the go ahead and complaints arise from neighbouring farmers about contamination of their crops, or from the school bus proprietor, or someone else is affected? Who is actually responsible for that?

**Mr ANDERSON:** In the consideration of a consent, if council were to issue a consent in this regard, it would also be approving the spray drift management plan. So I would assume that there is really a two-pronged attack for a breach of that consent: one being through the Environment Protection Authority and its pesticide inspectorate, and the other one being through the Land and Environment Court regarding a breach of a consent condition.

You raised a question about setbacks. The only setback that council actually specifies under its local environmental plan is in relation to our 1S small farm estates. We require dwelling-houses to be set back 150 metres from a zoned boundary, where that zoned boundary abuts either the 1A or the 1I intensive or dryland agricultural zones. That 150 metres was a direct derivative from a State legislation for the Environment Protection Authority for spray drift and other nuisance chemicals.

**CHAIRMAN:** I would just follow up a question that the Hon. Ian Cohen asked. This has got nothing to do with any local application. Who does the council feel should be responsible if there is cowboy spraying? Should the consultant be responsible for suggesting that a particular chemical should be used on a particular crop? Should the spray rig operator or the aerial operator be responsible? Or should the farmer be responsible? Or should it be a combination of all three?

**Mr ANDERSON:** I think it should be a combination of all three, with joint and several liabilities. The contractor, on my understanding, would actually say to the property owner, "You need to spray this certain chemical at this time to prevent impact from a certain bug or disease." Then a contractor is appointed to come in and do the job. It is my opinion that they would all be liable for non-compliance with a spray drift management plan as we have suggested.

**CHAIRMAN:** But, if the farmer says, for example, "I want you to go and spray that crop with this particular recommended chemical, but don't do it outside the guidelines," and the sprayer goes and sprays outside the guidelines, should the farmer be responsible?

**Mr ANDERSON:** I would argue that the farmer still has a degree of responsibility insofar as the contractor is operating on land under the control of the farmer, and therefore he should have the control that would enable him to stop that contractor from acting outside the guidelines when the farmer becomes aware of that fact.

**CHAIRMAN:** And say, "I won't pay you if you do it outside the guidelines"?

**Mr ANDERSON:** Yes.

**CHAIRMAN:** Certainly, in a situation where the farmer wants a particular crop sprayed with a chemical at a stronger mix than normal and the applicator says, "No, I won't do that," the farmer could keep going until he finds one who will, obviously he should be liable.

**Mr ANDERSON:** That is right. And the aerial applicator himself should also be liable for working outside the set of recommended guidelines. If you look at the circumstances with crops other than cotton, such as the cereal crops and those sorts of crops grown throughout New South Wales, the landowner virtually provides the land and grows the crop, whereas an agronomist comes in and actually takes control of the crop, deciding what it is to be sprayed with, when it is to be sprayed, and in what quantities. So there is a liability in the agronomist coming in and virtually taking over control of the growing crop, whereas the agricultural landowner provides the land and whatever is required to grow the crop.

**CHAIRMAN:** In other words, you are saying that the Act should be drafted such that commonsense should be to the fore and that if a matter gets to court the Act should not prevent someone who has contributed to it also being liable?

**Mr ANDERSON:** That is right. If you take a parallel to some of the recent legislative amendments to the Environment Protection Authority, whereby joint and several liability clauses were built in. Those are the issues that I am saying probably still need to be brought into this sort of legislation.

**CHAIRMAN:** Obviously, there obviously needs to be a legislative provision so that, for example, if a farmer took reasonable steps to stop spraying at the wrong

time, or with the wrong chemicals, and did everything reasonably possible, he should not be liable?

**Mr ANDERSON:** Yes. There is a duty of care, and if he has maintained that duty of care and taken all reasonable steps that are required, there is probably an argument that that liability is reduced or diminished.

**The Hon. J. R. JOHNSON:** I ask this question of John Davis. There is no cotton grown in your local government area at the present time, is that right?

**Mr ANDERSON:** I think I might ask Paul to answer that question.

**Mr DAVIS:** At this time, sitting here in this hearing today, the council is not aware of any crops that are grown ---

**The Hon. J. R. JOHNSON:** I am talking about cotton.

**Mr DAVIS:** Yes, cotton crops that are grown within the city with any consent. We were aware of a crop that was grown for trial purposes, in a different location to the one over which the actual application has been lodged. When we interviewed the person involved, he was unaware, or claimed that he was unaware of council's planning requirements and the requirement for consent, and he has undertaken not to grow any additional trial crops or any crops for any other purposes until such time as he is able to gain consent from council.

**The Hon. J. R. JOHNSON:** People who are concerned about the effects of cotton growing and any of the applications that may be made to control or eradicate bugs or whatever. If the council makes a decision that grants a landowner or leaseholder permission to plant cotton, and subsequently a number of actions are taken, can you see council being enjoined in any legal action? If so, does the council have or envisage having indemnified itself?

**Mr ANDERSON:** As with any determination that council makes, be it an approval or a refusal, there is a chance – probably an even chance – that the council will end up in the Land and Environment Court, either through a disgruntled applicant not being happy with the conditions of the consent or the reasons for the refusal, or on a third-party appeal on a point of law under class 4 proceedings under the Land and Environment Court Act. In either case, council does not have the ability to indemnify itself under the Act. Council's decision is a decision that is made under the Act, and a determination which is made under the Environment Protection Authority Act is open to appeal and challengeable by a person taking it to the Land and Environment Court. In those circumstances, as I previously said, there is no indemnification available for council.

**The Hon. J. R. JOHNSON:** After all these consents have been granted, could you see a time where concerned citizens, other landowners who maintain that their crops have been affected, or the water that they may have in tanks on their property has been affected – and I emphasise that this is after the council has granted consent, and

after it has gone through all the processes – can you see that the council ultimately can be held responsible for granting the application in the first instance?

**Mr ANDERSON:** A lot of it would depend on the application that was lodged with council and on what information was available to council when it made the decision, and whether or not that application in itself actually contained a spray drift management plan or other form of management plan that said that what you are talking about would not actually occur. In my opinion, if council were to grant consent to an application that said that was not to occur, and it did occur, the applicant or the person controlling the development – and cotton farming in the Dubbo city area is development – would themselves be liable because they would not be complying with the consent that was issued by council.

It could be argued that council could be joined in any action taken in the Land and Environment Court because the council issued that consent without having properly researched that matter. But my experience would lead me to say that in those sorts of cases the onus comes back to the person taking the action to prove that council did not take that matter into consideration when determining the application. So I suppose the short answer to your question is a yes, but it is also a no.

**CHAIRMAN:** Basically, councils are not liable provided they have taken due care.

**Mr ANDERSON:** Provided we have taken due care.

**CHAIRMAN:** And researched it thoroughly.

**Mr ANDERSON:** And researched it thoroughly, and taken all steps necessary to determine the potential impacts, which is what council is required to do for any development under section 79(c) of the Environmental Planning and Assessment Act. If we have followed those requirements set out under the Act and we have issued a consent or made a determination in accordance with that Act, we have a certain degree of protection afforded to us by the State government, which is the owner of the Act and which also is the owner of our local environmental plan because an LEP is a legal document that is gazetted in the *Government Gazette*, and hence it becomes legislation, the same as a speeding restriction.

**CHAIRMAN:** I thank you for your time and for the information that you have given the Committee. However, there are a few questions that I would ask you to take on notice and respond to as soon as possible. Those questions are:

1. In which areas would you like to see improvements by State government agencies such as the Department of Urban Affairs and Planning and the New South Wales Environment Protection Authority to minimise the risk of impact on any person, property or environment from use of pesticides?
2. How important is town planning to minimising incidences of local conflict between incompatible land users?

(The witnesses withdrew)

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**SHIRLEY CHRISTINA JEFFERY**, School Bus Operators, of 94 Warren Road, Narromine, and

**ANDREW JOHN MONTGOMERY**, Primary Producer, of “Taranah”, Nyngan, sworn and examined:

**CHAIRMAN:** Shirley, in what capacity are you appearing before the Committee?

**Ms JEFFERY:** I am appearing for myself and my husband, who are school bus operators.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Ms JEFFERY:** I did.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Ms JEFFERY:** Yes.

**CHAIRMAN:** Andrew, in what capacity are you appearing before the Committee?

**Mr MONTGOMERY:** As a private citizen.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Mr MONTGOMERY:** I did.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Mr MONTGOMERY:** I am.

**CHAIRMAN:** If you should consider at any stage during your evidence that, in the public interest, certain evidence or documents you may wish to present should be heard or seen only by the Committee, then the Committee would be willing to accede to your request and take that evidence in camera. However, I would warn you that, whilst this Committee resolves to hear the evidence in camera and therefore treat it as confidential, Parliament always reserves the right to overturn the Committee's decision and make the evidence public. Shirley, would you like to make a brief statement before we ask you questions?

**Ms JEFFERY:** I have some notes and I would like to read from those, if I may.

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**CHAIRMAN:** As long as we will have time for questions.

**Ms JEFFERY:** I will start, and you tell me if I am being too long, and then you can keep me quiet. How about that?

**CHAIRMAN:** Right.

**Ms JEFFERY:** We left Nevertire in January 1974 because we could no longer tolerate the chemicals associated with the cotton industry. We had put up with ten years of chemical assault. Spray drift affected everyone and everything – our home, our school bus and even the local school.

We moved to Narromine, purchasing a home and school bus runs, never imagining that cotton would spread so far east. Unfortunately, it did. The Buddah-Byron school bus service that we operate on the Warren Road, Narromine, is regularly sprayed by chemical applicators. On some occasions I needed to use the windscreen washers and wipers to clear the chemical off the windscreen.

It is not just aerial spraying that has been a problem but also ground rigs used by traditional farmers for weed control, fire breaks and normal crops, et cetera. Narromine Shire Council weed control spray rigs have had little or no regard for the school bus or children standing waiting at their pick-up/set-down stops. No spray warning signs are displayed on the roadside by council, and the sign on their spray rigs is useless. By the time one reads the sign on the vehicle it is too late to close vehicle windows and shut off air vents, et cetera.

On one occasion, while operating my school bus, I met the Narromine Council spray rig with its boom spray in full operation. As we passed each other the operator made no attempt to stop spraying. There have been many occasions when council spray rigs have failed in their duty of care and have put the community at risk. How can the Narromine Council implement, monitor or control spray practices for the district when the council staff are not spraying chemicals safely.

Some farmers put up signs when they are going to spray, and instead of removing them when spraying is finished they leave them on the roadside for weeks and weeks. Others do not bother putting signs out at all. How can this be good neighbour policy or best management practice?

After I reported a spray incident on 9 December 1996, the Environment Protection Authority asked to interview me on video as the Hon. Pam Allan wanted a video of my complaint. This was organised by Dubbo Environment Protection Authority staff the next day. The perpetrators took nine days after the same request to take part in an Environment Protection Authority video interview – quite long enough to practise or cook up a good yarn to get themselves out of trouble. They said it did not happen. Why would I report the incident if it did not occur? I had no ulterior motive.

Some months later I decided to have some blood tests done. The test results showed I have multiple chemical contamination and the medical specialist involved

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suggested I stop driving the Buddah-Byron service to stop further deterioration of my health. It was obvious that 30 years of driving school buses under spray drift conditions had created health problems for me.

We employed an extra driver, and my husband took on the Buddah-Byron service. On 9 February 1998 my husband reported a helicopter incident to the Narromine Chemical Liaison Committee and the Environment Protection Authority. His report is as follows:

*I encountered an aircraft spraying a cotton crop while travelling south along the Warren Road having just picked up four children in my school bus. I slowed speed to allow the helicopter to finish its run, thinking it would then hold back and let me pass. This did not happen. The helicopter continued with its spraying. I had to stop the bus to avoid being sprayed and then waited. The helicopter continued spraying and made no attempt to let me pass.*

A very detailed fabrication of the incident given by the perpetrators was eventually received by us some five months later. Why would my husband, a man with more than 30 years experience owning and operating bus services, report the incident if the helicopter pilot had not put the school bus and its occupants at risk? He had no ulterior motive.

It is interesting to note that after my husband's complaint the family with the four children who had been on the bus at the time of the spray incident was asked to leave the house they were renting. The house was then relocated out of our bus pick-up area. Some bus operators are reluctant to report careless chemical spray drift and try to keep the incidents quiet. They do not want retaliation.

The Narromine Chemical Liaison Committee is not a broad representation of the community. It was meant to have an independent chairman. Instead, it has a cotton grower as its chairman. The committee members are predominantly cotton farmers and people earning income from the cotton industry. The only exceptions are the Narromine Shire Council Director of Environmental Services and the Dubbo Environment Protection Authority representative. Our local community has become disillusioned with the Narromine Chemical Liaison Committee. Two friends of ours have left Narromine. They were sick and tired of getting nowhere and receiving the run-around when they made a spray drift complaint.

Narromine's population has dropped by 200 since the last census. If cotton brings money and people to a town, why has the population dropped? Some banks have closed, some shops have closed, and as student numbers drop teachers have been lost from the schools.

The irrigation industry's good neighbour policy, and now best management practice, are only words. We need all people using chemicals to be accredited and accountable for their actions. Until they are forced to be accountable for their actions, there will be no improvements for communities at large. Irrigators and their employees have learned over the years that they are untouchable.

Chemicals sprayed on paddocks and roadsides are not the only problem. The Orana Aviation chemical evaporation pond, situated at Narromine aerodrome, has been a problem for years. The pond puts off a vapour drift when not maintained properly. I have lodged numerous complaints, the latest on 25 May 1999. On each occasion council intervention has not rectified the problem – there has never been anything by band-aid solutions.

Narromine Council staff have told me that Orana Aviation will be moving to a new site closer to Trangie before the next cotton season. Council staff have also told me that the pond will still be used at Narromine aerodrome for part of each cotton season. Environment Protection Authority chemical services executive, Mark Gorta, visited my home about two years ago, when we discussed a number of issues, including the evaporation pond. He said it was too close to the residential subdivision that we live in and should not be allowed so close to the town.

An Environment Protection Authority monitor was placed at our residence and samples were sent away for testing. Samples were also taken from the pond site. I have never received the results from the pond site sampling, only a note from the Environment Protection Authority saying that the sample results were late.

Aerial applicators are the people we are told to trust while they are spraying our crops. They can't even use best management practice with their evaporation pond! What chance does the community have when the Clean Air Act is not being adhered to or enforced? Where are the rights of ordinary people? Surely we are entitled to clean air and a safe environment.

The problems I have spoken about today are a concern to many, not just for my husband and I. Hopefully, the Standing Committee will take on board the issues I have raised and something will come out of this inquiry.

**CHAIRMAN:** Andrew, do you have some comments to make?

**Mr MONTGOMERY:** Yes, I will make an opening statement. I also have some documents that I would like to issue to members of the Committee.

**CHAIRMAN:** What are they?

**Mr MONTGOMERY:** There are some chemical analysis results from a fish kill on my property in 1993. I will refer to them as I go through. I have got an opening statement to make.

**CHAIRMAN:** Before you do that, we will have a motion to table them.

**Documents tabled.**

**Mr MONTGOMERY:** There is one portion of that evidence that I would like to be looked at in private. I will refer to that before I get to it.

**CHAIRMAN:** Proceed.

**Mr MONTGOMERY:** My name is Andrew Montgomery, and I live at Nevertire. I have lived there all my life on my farm, named “Taranah”. I have become more and more horrified at the problems that are being caused by widespread agricultural and other chemicals being used around our district, and it seems everywhere else, but more particularly in the Warren-Nevertire-Nyngan area, as this is where my wife, my family and I live.

Things like the deterioration of the native vegetation that is left, especially around the perimeters of cotton farms, and also the unexplained birth defects et cetera around our area are a cause of concern. For example, there are three birth defects from three families who live here or work on my neighbouring farm.

There are also other major problems created by the agricultural pesticides being used, specifically in the beef industry, eg Helix and endosulfan, with seemingly no repercussions on the two industries that are responsible, that is the contract chemical applicators and the cotton industry.

Having lived in Nevertire all my life since 1956, I know that there are many less people living in this small district now than there were. When I was in primary school during the years 1961 through to 1967 there were in excess of 100 children going to the local primary school. There are now 36 students. I may stand to be corrected, but I can remember only one child with any serious problems who was going to school when I was there. As I recall it was eugenic; it was not caused by the environment.

From my observations over the past 30 years of cotton farming around our district, there are some major problems confronting everybody living and working with agricultural chemicals, and that is through their application by aeroplane. It is just too uncontrollable and too inaccurate, especially with the use of ultra low volume formulations. May times I have witnessed chemicals being applied by air, and the drift was astonishing.

There was one incident on my neighbouring farm where our neighbour was spraying a sovereign yellow, pre-emergent chemical I believe it to be, and I was watching from the shire council road. If you would like to look at the documents I have given you, it is page 3 on the map. The aeroplane was spraying in a pattern to and from the shire road at 90 degrees to it.

**The Hon. I. COHEN:** Are you talking about the circle now?

**Mr MONTGOMERY:** Yes. There is a little square written on there, and Elsenor is the property that I am referring to, and “Taranah” is my property alongside it. There are a heap of little banks and drains and things drawn on it. The spray could be seen at least 400 metres – or one and a half power pole spans – away from where the plane was spraying, before it got to the stage where you could not see it any more.

I have also witnessed the results of aerial application of selective herbicides to a wheat crop, with large gaps where the chemical was not sprayed. And, when the spray was applied at the correct rate there was almost a 100 per cent kill. This hit-and-miss approach must be having serious effects on the resistance of the target pests to all chemicals.

I would really like to see this Committee think seriously about the limiting of aerial spraying in the light of some of the evidence that you will look at in a minute. That concludes my opening statement.

**The Hon. I. COHEN:** You have both had separate experiences with aerial spraying. Would you consider it acceptable if there was ground spraying? Would you support the use of chemicals under a ground spraying regime? Also, in terms of aerial spraying, you referred to light aeroplanes. But what is your opinion, Ms Jeffery, being a bus operator moving through the areas and the experience of the helicopter spraying as opposed to aeroplane spraying?

**Ms JEFFERY:** We have found, from the experiences that we have had, that helicopters beat the chemical. You only have to see what happens when a helicopter is leaving the ground or coming down to land how it beats up the dust. We have found that it has the same effect of the aerial spraying application; it beats the chemical and disperses it. We have found no improvement with the application by helicopter.

**Mr MONTGOMERY:** It is interesting that you ask about ground spraying. On my trip to Dubbo, about 3 kilometres east of Nevertire this morning, there was a ground spraying rig some 500 metres from the public road, I presume spraying a weedicide as it was on a wheat or barley crop, and the smell of the chemical almost made me ill while I was driving on the highway.

I purchased a Mercedes tractor in 1978, and in some of their publicity material was information about some boom sprays that were available in Europe 21 years ago that had shields over them for the express purpose of stopping drift, and Europe is very much more closely settled than we are. Now, that technology was available 20 years ago; I want to know why it is not even being looked at out here.

With regard to my interest in pesticides and oversprays, it goes back to 1978 and 1979. On my own farm I grew a small plot of linseed. If you refer to page 2, which is the diagram of my farm, there are two hatched areas. In 1978, I had a 73-acre – about 30 hectares – area of my farm (of 2,045 hectares) sprayed with a specific non-DDT based chemical. If you refer to page 1, on 18.9.78 what did I have in my cattle? It is 0.09 parts per million of DDT. The following year I planted another small block of linseed, 120 acres, sprayed by the same contractor. Again I specified a non-DDT based chemical. And we have got 0.15 parts per million in my cattle straight after the spray.

So I took the decision then that, if I had ordered a DDT based chemical, it was my responsibility that I got overspray. I specifically asked the company, which was Grazcos, not to use a DDT chemical, and now I have got this turning up in my cattle on

my own land. I took the albeit goody-two-shoes attitude to ban chemicals from my farm altogether, and I have not used chemicals on my farm since that 1979 incident.

If you look at page 1, again in 1986 I had more DDT contamination. Next door just happened to be growing soya bean. They were controlling insects. I was advised in 1978 that I was very close to being quarantined because of the chemical overspray. That is why I took the decision not to allow any agricultural chemicals on my land from that day till now.

I am now in the process of doing a cattle care course, which also required me to take a farm chemical users course – of which I do not know the results yet as to my ability to go and buy and use agricultural chemicals. It seems to me that what I learnt at the farm chemical users course is certainly not being applied by the aerial applicators in almost all instances. That is despite all these sorts of overspray problems, and they are still occurring.

I am sorry I have not got copies of each of these for each of the members of the Committee, but the land clean-up now is one headline, and that was dated 28 January 1999 – remember this is not me saying this; this is what has been printed for public viewing. There are other instances. I go back to a family at Trangie fighting to retain clean-green image – another Land expose on February 16, 1995. CUZ was the culprit then. It is now endosulfan.

The cotton industry has been at pains to point out that it won't be another E list. No, it may not be, but they are still going to be using aircraft for spraying their crops. It may be some other chemical next year. That is my biggest concern.

**The Hon. I. COHEN:** Mr Chairman, could we have those tabled?

**CHAIRMAN:** Do you want to table them? We can get copies of The Land easily.

**Mr MONTGOMERY:** They are only newspaper articles. That is all that is there.

**CHAIRMAN:** If those are the only ones that are there, you can table those.

**Mr MONTGOMERY:** You can have a list of all of those. That is no problem. It is just so that you know it is not just me going on about this. Page 1 that I have tabled came from the Department of Agriculture. With our cattle care, we are required to have a tail tag history of chemicals on our farms, to see whether we have a problem with regard to chemical contamination of our cattle. That is the big buzz word thing in the cattle industry at the moment. It really does frighten me that we are continually seeing this all across New South Wales and in southern Queensland.

If we could go on to page 4 (a) through (c), there is an Environment Protection Authority results of an analysis of samples taken in 1994. I would invite you to have a look at page 4(c) and the right-hand column where it has been circled. That was a

control dam of 1 kilometre, measured by the Soil Conservation vehicle from the closest cotton. That was taken as a control. The chemical they were looking for was endosulfan. There was very minimal drift conditions on the particular morning that these chemicals lobbed in my dams. I urge you to think about buffer zones when you look at all the other evidence that has been coming in from all the other applicants. But that was a kilometre away, and the wind drift in that particular situation is almost zero.

There are lots of things there from the Environment Protection Authority. I will go on to pages 5 and 6. After we had this chemical overspray incident with regard to the fish kill that page 4 refers to, we were notified by the Environment Protection Authority that they would not pursue the matter with the offending company, which in that case was Bundamba Pty Ltd, formerly Macquarie Valley Air Spray. We were asked to go to mediation.

The mediation took two or three days of our time down here in Dubbo and it cost quite a considerable amount of money. The letters regarding the mediation are there, at pages 5 (a) through to (e). The mediation, as far as I was concerned, was a total waste of time. In the very first spray that took place after the mediation they were back over the boundary fence again.

**CHAIRMAN:** Before you go off that one, I would like to refer to the Environment Protection Authority letter, which says:

*We are satisfied that there is sufficient evidence that the waters of the dams in question were polluted by the activities, but at this stage it is decided not to institute any legal proceedings.*

Did they tell you why they decided not to institute proceedings?

**Mr MONTGOMERY:** No. You might refer to page 6 of the Pesticides Act, which I have supplied there.

**CHAIRMAN:** That is the answer.

**Mr MONTGOMERY:** I presume that is why, but I do not know that to be the case.

**CHAIRMAN:** In other words, section 37 of the current Pesticides Act states that it is an offence to cause risk, and that a person shall not wilfully or without reasonable cause do anything likely to cause a risk. So, what you are saying is that it is difficult to obtain a prosecution.

**Ms JEFFERY:** It is impossible.

**Mr MONTGOMERY:** How can you prove wilfulness?

**The Hon. I. COHEN:** I think that will change, actually.

**Mr MONTGOMERY:** I certainly hope so.

**CHAIRMAN:** That is exactly the sort of thing we are looking at. We are running a bit behind time, and members would like to ask you a few questions, so would you bear that in mind.

**Mr MONTGOMERY:** By all means.

**Ms JEFFERY:** Can I just say that I would like to contradict what Peter Cone from Cotton Australia said.

**CHAIRMAN:** If we can allow Andrew to finish first.

**Ms JEFFERY:** I am sorry, Andrew. I thought you had finished.

**Mr MONTGOMERY:** That is alright. The next little bit is on page 7 of the documents I have tabled. I would like this particular part to be dealt with in private.

**CHAIRMAN:** Could we leave that till last?

**Mr MONTGOMERY:** We certainly can. That is not a problem. As I stated, I am a primary producer, primarily involved in cattle production. I draw your attention to page 8 (a) through (f). I do not know whether any of you gentlemen run a business selling primary products or whatever. As I stated, I have not used chemicals on my farm since 1978, and yet on 20 December I received a letter from the New South Wales Department of Agriculture, with my tail tag on the top of the list, saying that I was on a Helix monitoring list.

If you look through those documents, you will see that we had to fill out a form from the Pastures Protection Board with regard to whether we used chemicals - in this particular case CFZ. In part 2 on page B it says, "Since January 1994 have any of your cattle been grazed on land adjacent to a cotton farm, including stock routes or private property? Answer "yes" or "no" or "not sure"." Well, because I am physically right alongside a cotton farm, we answered "yes". So, straight away, I am on that list whether I need to be there or not. If you look down a little bit further, you can see that we wrote a letter to ---

**The Hon. I. COHEN:** Could I ask you a question while you are on that one?

**Mr MONTGOMERY:** Yes.

**The Hon. I. COHEN:** Are you on that list because of results of tests?

**Mr MONTGOMERY:** No, because of my proximity to a farm. If you look at the map on page 3, you will see "Taranah" is an L-shaped block alongside "Elsenor", and that is why I am on it. You might also note that the people on the other side of the highway are on that list as well. That means that they have a physical buffer zone of some 500 metres, because there is a railway line and a highway.

Because we had been having a bit of a look at this, we started to look through how we could get ourselves off that listing. I was able, at great pain, to extract from Macquarie Valley Agricultural Services a letter stating that they had not used CFZ on "Elsenor" during the 1993-94 cotton season. So therefore we were able to get our tail tag number removed from that. It was still a problem, because we now have to modify our whole management process because of what our neighbours do. I am finding that more and more distasteful.

I have had all the country along my boundary quarantined for the last six months, simply because they are growing cotton there. I cannot use that land without some risk to my own cattle or cattle that I may have there on agistment. That is a real worry to me. I do not know whether you people who are in business would like it if the statutory authorities came to you and said you must cease trading or quarantine that much of your business for six months of a financial year. It makes trading pretty awkward. And I think it is all due to the fact that the Pesticides Act is very hard to police.

**CHAIRMAN:** We might go to questions before we run out of time.

**The Hon. I. COHEN:** Mr Montgomery, as a landowner do you see any avenue for redress there? Is there any way that you can go to make the neighbour or authorities responsible at the present time?

**Mr MONTGOMERY:** It has been related to me that if I see that the cotton industry is not doing the right thing that I should take them to the civil courts. Mr Kelly just read from a letter from the Environment Protection Authority, which decided not to take on this particular incident of the fish kill. I ask you why. I suggest it could be financial. I certainly would not be willing to risk my whole farming enterprise on the off chance of being able to successfully prosecute my nextdoor neighbour. It is almost financially impossible for a small farmer like myself – and there are lots of other small farms round the area and elsewhere in New South Wales – because, whilst that word "wilful" is in the Act we have almost not got a leg to stand on.

**The Hon. I. COHEN:** You set out details of incidents clearly in your evidence, even though they might not be supported by action under the Act. Do you have any other evidence from other communities of this type of situation?

**Mr MONTGOMERY:** I do. I did not bring them with me today. The Gunnedah area is rife with the same sorts of problems.

**The Hon. I. COHEN:** Perhaps you could furnish us with that information on notice.

**Mr MONTGOMERY:** I would be able to put you in touch with people in the Gunnedah district that are having these same sorts of problems, yes.

**The Hon. I. COHEN:** Ms Jeffery, I understand you have concerns with the type of chemicals that are used in cotton production, as well as what is said to be used as against what is actually being used. Could you explain that to the Committee?

**Ms JEFFERY:** You mean what the Cotton Australia representative said?

**The Hon. I. COHEN:** Yes.

**Ms JEFFERY:** No. What I wanted to say was that he misrepresented the situation when he said cotton was not grown twice in the one block of country. That is not right. Having operated buses for 30 years and having gone the same road day after day and year after year, we have found just the opposite. They use a cotton trash machine, like a big lawn mower and mulcher type of thing, and they mulch all the cotton trash up, and the cotton goes back in the following year. We have seen that over the last 30 years. It is still going on. So I feel that he misrepresented the situation there.

The Dubbo City Council seem to have a lapse of memory. I do not know which one said it, but one of them said that he could not recall any spray incidents being reported about their spray rigs in Dubbo. I know for a fact that they received several reports, and one from the Orana Heights Primary School because they sprayed the oval right nextdoor to the school and the principal and some of the parents complained. So I feel that is a lapse of memory there.

**The Hon. I. COHEN:** Mr Montgomery, as a farmer, can you see any application method that you would consider to be safe and appropriate? Are you opposing the use of pesticides per se, or are there methods which in your experience could be undertaken that would do the job and protect the neighbours?

**Mr MONTGOMERY:** From equipment that I have seen advertised, especially in literature from Europe, there is equipment available for use on ground rig applications. These shielded boom sprays have to be something that should be looked at, simply because they alter the very fine floating droplet to the stage where it either goes onto the target crop or it drips onto the ground in a larger droplet form that cannot just float off in the breeze.

With regard to whether I do or do not like chemicals, I have chosen not to use chemicals on my farm. I will qualify that, however. Twice I have had spot spraying done by the Castlereagh Macquarie County Council for Bathurst burr control, because by law I am required to control Bathurst burr on my farm. Both times it was not very well done. I don't know whether the applicator really did not know what he was doing or what, but I was very disappointed in the results, to the point that I would not do it again.

**CHAIRMAN:** What was used?

**Mr MONTGOMERY:** They used a Roundup, but I don't know whether it was Monsanto's Roundup, this last Bathurst burr season. I think it was MCPA, but I am not

sure of that. But that was done to fulfil a legal requirement. I did not like having to do it, but I had a Bathurst burr problem and I did not have the time nor the physical ability to get at the burrs because it was very wet and it was impossible to physically plough them out. So it was a case of give it a go and spray what we could.

But the results were very disappointing. Okay, it was probably an application problem. But I get back to the aerial part of it. I have been through the terms of reference, and some of the terms of reference relate to sustainable agricultural activities which currently rely on pesticide use. As I see the aerial spraying of pesticides, it is really asking for a major problem with resistance by the continued use of aerial application, simply because there are big areas that are missed.

I have seen this in a wheat crop. They are large paddocks admittedly; they were 1000-acre paddocks, and there are strips 100 metres wide, right down the middle of the paddock, every second or third run of the aeroplane. That means there is a resistance patch that must be in the middle of that crop. The crop is still infested, and the insect that survives the spraying will reproduce itself. There will be a certain proportion of those insects that will be resistant simply because they have been in touch with that chemical. It is too much of a hit-and-miss thing with aerial application of chemicals.

**The Hon. J. R. JOHNSON:** Mrs Jeffery, as a result of your blood tests, what is the prognosis?

**Mrs JEFFERY:** That I have multiple chemical contamination. I have that documented.

**The Hon. J. R. JOHNSON:** That is what the results have shown. What is the prognosis? What is likely to happen?

**Mrs JEFFERY:** I was tested for organochlorines?

**The Hon. J. R. JOHNSON:** But what is likely to happen?

**Mrs JEFFERY:** I come from a long line of Scottish long-livers and tough nuts, and I will be flat out if I can keep up the tradition, the way I'm going. Is that simple enough for you?

**The Hon. J. R. JOHNSON:** It is too simple for me. What does the doctor say is the likely effect?

**Mrs JEFFERY:** He said to get out of the area and to try to keep myself away from chemicals. I wear a mask when I go out to hang my clothes on the line or to work in the garden, because I never know when there is going to be a drift or there will be odour from this evaporation pond at the aerodrome. I tried to wear a mask on the bus run, but that was just plain ridiculous so we pay an extra \$500 a week to put a driver on, and you don't do that unless you have got a problem.

**The Hon. J. R. JOHNSON:** As a result of the buses being sprayed, have you heard of any of the children having a health problem?

**Mrs JEFFERY:** Nearly all of the children that came from the cotton growing area on this particular service – like, that came from Byron agriland – they all had continual respiratory problems: runny noses, coughs, and the majority of them had puffers. They all seemed to be puny, sickly type of children.

**The Hon. J. R. JOHNSON:** Mr Montgomery, you have told us that you have taken a very conscious decision to use no chemicals. Has that reduced your income?

**Mr MONTGOMERY:** I don't honestly believe so. I did use two yearling or less-age calves last year that could possibly have been put down to pulpy kidney. But, out of a herd of 230 head, I think two calves is a very small loss to sustain. I do see the absolute use of chemicals with regard to agricultural and the sustainability of agricultural being a major problem in the future simply because the genetic base is getting very used to being supported by chemicals. I cite the chicken industry in particular.

I have a small amount to do with the chicken industry up above Newcastle, and they use a lot of hormones, et cetera, to grow their chickens. When I first became involved with these people, when I met my wife in 1983, they were getting one runt per batch of 25,000 birds. They are now getting runts to the order of 400 and 500 per batch. If I were a chicken grower, I would be starting to worry pretty drastically about that, especially when they are looking at a turnoff period of some six weeks. That is what is down the track for all our other industries, cotton included, as I see.

Back at the turn of the century, whilst the cotton yields were very low, because of close genetic proximity to tobacco, and therefore the nicotine in tobacco, it had a natural chemical resistance. I just see that the cotton industry has bred itself into a hole, literally chasing high yields. The cattle industry I see going the same way because of its use of the 7-in-1 and 5-in-1 vaccines to stop the likes of pulpy kidney. The weak side of the genetic base is being supported.

**Mrs JEFFERY:** BT cotton was held up as the answer to the chemical problem. It has been shown that it is not. This last cotton spraying season Inguard, or BT cotton, has been sprayed 16 times. If it was such a wonderful plant, why did it need to be sprayed 16 times? That has been in the paper several times, and there has never been a cotton grower stand up and say, "That is incorrect" and ask for a retraction.

**CHAIRMAN:** What is your comment about Dubbo City Council having some through planning in advance?

**Mr MONTGOMERY:** I think it is a great thing because nobody seems to know or care or be looking for any problems in the future. That is what I see. I went to a meeting of the Bogan Shire Council on Monday night, and they are having the same sorts of problems. The people that are looking at putting the cotton in, the ones that are right close to their water supply, say, "Oh, no, we're not putting cotton in." But, at this

very moment it would be a very stupid move to put cotton in simply because cotton prices are terrible.

**CHAIRMAN:** I thank you very much for your documents and for the evidence that you have given us this morning. I do have some questions that I would like you to take on notice. They are:

1. Can you briefly describe your concerns regarding industry-sponsored efforts to manage and regulate pesticide use?
2. Can you expand on your concerns raised in your submission about Narromine Council's use of pesticide spray rigs?
3. What has been Narromine Council's response to the concerns you have raised regarding council's roadside application of pesticides?
4. Can you expand upon the view raised in your submission that the New South Wales Environment Protection Authority should have the capacity to overturn local council relating to pesticide use and management?

(Mrs Jeffery withdrew)

(Evidence of Mr Montgomery continued in private session)

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**Evidence in private of ANDREW JOHN MONTGOMERY:**

**CHAIRMAN:** I understand Andrew wants to talk to us in private briefly about an agreement that he has with a neighbour about spraying.

**Mr MONTGOMERY:** If you would refer to page 7 of the information I have given you. We had a fish kill, which is documented, along with the chemical analysis. The Environment Protection Authority went down this course of mediation. Just for your interest I should say that, after being through mediation, I consider mediation to be where the wronged party is made to feel guilty. I say that tongue in cheek because of what has happened since.

I draw your attention particularly to item No. 3 on page 7. It says that if aircraft are to be used for spraying of pesticides on Elsenor, the aircraft is not to be turned over the Taranah property. I would take that to mean not go over the boundary, which is on page 3 of the map of the Elsenor and Taranah boundary, which is common for the whole length of Elsenor and about three-quarters of the length of Taranah.

I was ensured by the Environment Protection Authority that solicitor, who at that stage was Murray McArdle, that my fears were totally unfounded with regard to the policing of this matter. The very first time Bundamba Pty Ltd sprayed Elsenor I had a canary-yellow dual-cab Hilux parked on the boundary fence, and the plane literally flew over the top of me three times, as if to say, "Up yours, Jack, we will do as we like." That was only two months after this agreement was signed.

So, with regard to policing specifically the aerial agricultural spraying industry, I really have a worry because I have been through it. I am watching this very plain country; there are no trees between me and the cotton. I can see everything they do from my living room – and they know I am watching them. But they treat me with disdain – after this agreement. It is my concern that this Committee should look very seriously at re-writing the Pesticides Act, especially looking at the word "wilful" in it. That is a sincere worry of mine that this should not happen again.

When you go through all the documentation that I have given you, and you get to the endosulfan survey for instance, again we ran the risk. If I had to sell my cattle in Dubbo, I ran the risk of taking a 20 to 30 per cent dockage – just simply because I am alongside a cotton farm. There is another overspray incident at the moment that is being investigated by the Environment Protection Authority. That involved a helicopter. So, if you are thinking that the helicopters are okay, I would like to say that this is also a problem. It has already happened.

I was rung by my neighbour, "Please come and have a look at the helicopter and how much less drift we are getting." That was after we had already been sprayed. It is not cricket. And yet the cotton industry – and I single the cotton industry out because it is the one that I am next door to, and it does not necessarily mean the cotton industry only; it is anybody who uses aerial application of chemicals.

**The Hon. I. COHEN:** The cotton industry would be fairly intensive?

**Mr MONTGOMERY:** About 85 per cent.

**The Hon. I. COHEN:** Is there any other crop that has a similar use?

**Mr MONTGOMERY:** Soybean. I don't know whether you people watch television much, but you see advertisements for soy products, putting them forward as being healthy. If there is contamination in cotton, why isn't there contamination in soybean? It is exactly the same chemical regime that is being used.

**The Hon. J. R. JOHNSON:** There was an article in yesterday's or today's *Herald* about soybean.

**Mr MONTGOMERY:** I don't get any of the local papers or any papers because we live out of town. But it is a problem, and it does not seem to be being addressed by anybody. The Environment Protection Authority, when we went through this mediation, seemed to have the attitude, "So what? Who cares?" The attitude of the cotton farmer in this particular case, Robert Pengilly, was, "It's only a few fish in a farm dam. They won't do anything." He was right. This was two days after it happened. That is a real worry to me.

**The Hon. J. R. JOHNSON:** Tell us about those fish. Were they introduced fish?

**Mr MONTGOMERY:** They were put there by flood. There were mainly bony bream, but we also found Murray cod and yellow belly dead. One of the men from Fisheries at Condobolin or somewhere came and had a look, and National Parks and Wildlife came and had a look because they have got the same problem with cotton alongside the marsh. As far as I can see, that is an environmental disaster waiting to happen because there is nobody watching them. That is about all I wanted to tell you.

The only reason I wanted this in private was because the only way they would be party to this agreement was if it was not publicised. This has got to the stage where I think it needs to be publicised. I have been approached by another farmer that I am doing work for at the moment in my other business, in earthmoving. He has been approached by his nextdoor neighbour with regard to using endosulfan this coming cotton season. He said, "What am I going to do? I don't know what to do. I don't know what to ask for." I am going to show him some of the things that he can ask for. I cannot give him this agreement as something to go by. But there is a real problem.

The industry has this perception that they are untouchable now. It has been said to me, "If you use 2,4-D," - and 2,4-D is the big thing that the cotton industry hates because 2,4-D is extremely toxic to cotton - they just trot the label out and say, "Here, brother, look at this." It says on the label that you cannot use it near a susceptible species. I don't know whether you know it, but the cotton industry is a fairly big user of 2,4-D during the winter period because it controls weeds that they cannot control

with anything else. But, talk about it during the cotton period and they go off their brain.

(The witness withdrew)

(Evidence in private session concluded. Public hearing resumed)

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**BARBARA DOREEN ELDERSHAW**, Home Duties, of 3 Hyronimus Avenue, Wellington, sworn and examined:

**CHAIRMAN:** In what capacity are you appearing before the Committee?

**Ms ELDERSHAW:** As publicity officer for the Australian Network of Environmental Watch People Affected with Chemicals, known as ANEW PAC.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Ms ELDERSHAW:** Yes.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Ms ELDERSHAW:** Yes.

**CHAIRMAN:** If you should consider at any stage during your evidence that, in the public interest, certain evidence or documents you may wish to present should be heard or seen only by the Committee, the Committee would be willing to accede to your request and resolve into camera. However, I should warn you that Parliament can overturn that decision of the Committee and make your evidence public. Would you like to make an opening statement before we ask you questions?

**Ms ELDERSHAW:** In 1994 I rose and spoke at the National Environmental Law Conference in Melbourne and asked questions regarding chemicals. From about 1995 onwards I have done a lot of broadcasting, travelling, researching, and writing up of cases of chemically poisoned people all over Australia. Chemical poisoning includes chemical sensitivity and multiple sensitivity. Chemical poisoning, I believe, is when a person goes grey, usually the left side is paralysed, and goes right out to it.

Imagine sitting and driving a car and you have your foot on the accelerator. When that paralysis hits, the foot automatically goes down on the accelerator. One of the few people in Australia, a doctor, actually witnessed the paralysis striking. That was in 1973 in the lower Blue Mountains. My doctor actually saw it happening. I have found another doctor in South Australia who actually witnessed it happening to a little boy six years old. I believe that that factor is one of the things that could well be the answer to a lot of accidents on the land, on roads, and even in the sky in aeroplanes and helicopters. Pilots have told me that the left side of the body is very necessary when flying. I know nothing about planes or helicopters. But this is happening all over Australia.

It particularly affects people from 45 to 50 years onwards. There is a build-up of chemicals over a period of time. Usually, when they get to a certain age, there is a certain amount of build-up and stress can bring on a chemical attack, and you just go out to it. This is happening to a lot of rural men. One thing that my research has done is bring the rural men out; they have spoken up. A lot of them have stayed quiet for

years. A lot of them, when they ultimately got to their doctors, were told they were initially made ill when they were only 16 to 24 years old.

A lot of rural women also have told me a lot of stories, particularly relating to arsenic. The old sheep dips were arsenic-based, and a lot of the women were ill when they were only little girls. Of course, as they have got older, the arsenic has built up. Of course, you have the natural chemical arsenic and then you have got the synthetic chemicals, like the endosulfans, the DDTs and all the rest of it.

I used to be on the land; I used to breed cattle. My biggest fear is for the cattle industry. I went on radio in 1994, as soon as I got back from Melbourne, and warned about the chemical Helix, warning that any cattlemen who were feeling a bit odd or a bit funny should not try to drive but should get to a doctor fast, because what was on that data sheet on Helix was not what everybody else was trying to say at the time.

There is so much illness; it is not only children being born but our grandchildren who are affected. I have photographs of a farmer and his son in another State, and I have even got a photograph of my own face, when I just walked past an open doorway, and the eye looks as though I have been socked in the eye. But that was from the hydrocarbons on the dance floor and the fumes came out and hit me. I had one inhalation and I was sick for three months.

So that is basically what I have been doing. I have been recording and writing up medical histories. A copy of each batch went to the AMA. Another copy went to the Minister for Agriculture, and another copy went to the Minister for Health. Both Ministers of this Government moved on my recommendations. I pointed out, for instance, that Parkinson's disease was affecting much younger men further out west in sheep areas, where there are a lot of chemicals used on sheep.

**CHAIRMAN:** What particular pesticides are you most concerned about?

**Ms ELDERSHAW:** All of them, really. It is all the synthetics. For instance, endosulfan is part of a group of chemicals. You do not talk about a chemical; you talk about which chemical of which group. Endosulfan and DDT and dieldrin are all a member of a group. That is one group of chemicals that attack and damage the central nervous system. That came out in 1982 in the US Armed Forces of the World chemical list. I have got a copy of it there.

In the next column are chemicals that cause irreversible damage. That is now hitting men in the sheep industry. The Diazinon and Roundup are in the same group of chemicals. Many times I have read in papers that have been acknowledged overseas that Roundup will prove to be the monster of them all because of the inert surfactants. This is where I clash with chemical companies, both in Melbourne and Sydney, over the inert surfactants, because my argument always is that if our doctors know what the inert surfactants are, then they know what they are up against.

But the chemical companies keep saying to me, "It is our trade secret." Of course, I have always come back and said, "Put a chemist in the laboratory and we will

soon tell you what your chemical is made up of anyway.” So why not give our doctors a fair go? Our doctors just do not know what they are faced with. At present, we are fortunate enough that we have the testing facilities at Newcastle University, but it costs about \$450, and most of these affected people have got families and they do not have that sort of money.

**The Hon. J. R. JOHNSON:** Ms Eldershaw has considerable documentation, and she might like to make that available to the Committee. It could be returned.

**Ms ELDERSHAW:** Yes, I have material here from 1993 from America and all over. Some material from Sweden just came in in May.

**CHAIRMAN:** If you could make that available, we will peruse it and send it back to you within the next couple of weeks.

**Ms ELDERSHAW:** If you could copy it, that would be fine.

**The Hon. I. COHEN:** I am interested in what you are saying about Roundup. There has been a great deal of debate about the various models of Roundup and Monsanto’s assurances that the surfactants in the more recently produced Roundup are far more inert than in earlier products and that there is not the same environmental or health problems. Would you like to comment on that?

**Ms ELDERSHAW:** Monsanto do not produce it any more.

**The Hon. I. COHEN:** They do not produce it?

**Ms ELDERSHAW:** I do not believe so, no. I think that period where they own the product ---

**The Hon. I. COHEN:** The patent.

**Ms ELDERSHAW:** I think the period where they own it for 20 to 25 years has run out now.

**The Hon. J. R. JOHNSON:** So it is open slather.

**Ms ELDERSHAW:** Yes. The trouble is that three years ago I was told of chemicals coming in through Western Australia being unloaded in Western Australia and being shipped across to the eastern coast by truck. I tried to tell that to somebody in Canberra, but down there they are just a pack of idiots in the government departments. It could well be that the Roundup is being manufactured in a country like India – although the Indian government has come down pretty heavily on a lot of illicit chemical companies and shut many of them down. But they could be manufacturing it and we would not even know what is in it.

**The Hon. I. COHEN:** I have given information that it is not the surfactant so much as the chemical component of the product that has been shown to be the problem. Do you have any comment on that?

**Ms ELDERSHAW:** Do I have any comment on what?

**The Hon. I. COHEN:** The current status of Roundup and what is causing the problems.

**Ms ELDERSHAW:** I have a Roundup summary, if you would like that.

**The Hon. I. COHEN:** Perhaps we could have a look at that. The Glycosate was not taken into very big regard with glyphosphate. Formaldehyde and all the other chemicals are in that, as is mentioned in the Roundup summary, but that was put together by scientists from all over the world. It was published in New Zealand. But then, in May, one of the scientists in Sweden sent me some of the papers, and I have copies of them here. He has urged that glyphosphate be reviewed.

**The Hon. I. COHEN:** What is your opinion of the genetically-modified products?

**Ms ELDERSHAW:** I fear for the grain industry because, if it comes in 2001 with the genetically-modified wheat and barley and so on, I think it is going to be the biggest trap for our grain growers, because it virtually means, as you probably know, that Monsanto have taken over just about 54 or 56 grain companies in the world, and they want to control all of the grain market and the seed market. However, a lot of countries are starting to rebel.

I know a lot of the wheat growers – and I know a few of them because a little bit of wheat used to be grown on my place – are starting to think twice too, because if they do not have their own seed in the future, particularly the smaller countries, they won't have any food. It is as simple as that. Already, reports have come in that grain producers in America who go to a bank to get a loan to plant a crop they have to sign a piece of paper to say that they are going to use X amount of chemicals. When I was down at Orange at a Landcare meeting I was talking to a farmer there. I was telling him about this. He said to me, "Don't be surprised if you find that it already is happening in this country." I said, "I hope not."

**The Hon. I. COHEN:** Earlier today a witness talked about phosphine and the gas that is given off in the grain trap as a pesticide.

**Ms ELDERSHAW:** Yes. I have interviewed men who have actually worked on those grain dumps. Those who were fortunate enough to have a companion, and realised there was something wrong when the paralysis hit them, because they could not talk, are still alive. But those who were on their own and working on grain dumps dropping the pellets, they are now dead.

**The Hon. I. COHEN:** In terms of the toxicity of the gas given off, what is the condition? Has it a short-term effect, or is there a residual effect of that chemical?

**Ms ELDERSHAW:** It is the atmospheric conditions. I can give you an example. About two years ago in Wellington my cat started to go berserk, jumping up against the window and the door and so on. The cat is the most chemical-sensitive creature on this earth. I opened the door, and a smell came in. People started to get sick. Now, that is chlorpyrifos gas. It escaped out of the silos. It travelled as far as Bakers Swamp, which I think is about 12 miles away.

A couple out there rang me when they recognised the smell, because they were off the land themselves, and they became sick. Then I found that people in Wellington were sick. When I found a young mother with four children whose legs and feet were going tingly, that is when I got onto the Grain Board and ripped into them. He did not want to tell me what they had used, but I found a fellow who actually worked there and twisted his arm and got out of him that it was chlorpyrifos. That chlorpyrifos I took particular note of, because each evening, when the night air would come down, the chlorpyrifos smell would become even heavier.

Of course, Wellington is in a valley. I took particular note of how the winds changed. The wind one day changed three times in 15 minutes. Of course, that chlorpyrifos is getting moved around all the time, and it is just travelling. It could have gone as far as Dubbo the first night after the wind changed and brought it back from Bakers Swamp. It could have gone on to Dubbo and possibly the people of Dubbo would not even know that they were inhaling it, and then the wind changed and brought it back again.

**The Hon. I. COHEN:** Was there any scientific evidence or action by any government department on that matter?

**Ms ELDERSHAW:** I don't know about in this country.

**The Hon. I. COHEN:** I am sorry to interrupt you. Was there any evidence collected by any government department? Was there legal action on that?

**Ms ELDERSHAW:** The Environment Protection Authority was notified and so also was an officer in the Health Department.

**The Hon. I. COHEN:** But was there any action taken by any department?

**Ms ELDERSHAW:** Probably not. I think one of the Environment Protection Authority officers came out and talked to me. But, as to whether they did anything or not, I don't know.

**The Hon. I. COHEN:** Thank you.

**CHAIRMAN:** Thank you very much. There are three or four questions that we ask you to respond to on notice. We will send you a copy of the transcript and it will have those questions. So you might respond to those for us. They are:

1. What do you see as the major dangers to persons, property or the environment from pesticides use or misuse?
2. What legislative or policy measures do you believe are required to be instituted by Commonwealth, State or local government agencies in managing pesticide use?
3. What improvements can farm chemical manufacturers, distributors and applicators undertake to improve the management and use of pesticides?

(The witness withdrew)

(Luncheon adjournment)

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**ROBERT MEADLEY**, Director of Environmental Services, Narromine Shire Council, of 41 Fifth Avenue, Narromine, and

**JOHANNES HONNEF**, Planning Officer, Narromine Shire Council, of 104 Fourth Avenue, Narromine, sworn and examined:

**CHAIRMAN:** Mr Meadley, in what capacity are you appearing before the Committee?

**Mr MEADLEY:** As Director of Environmental Services.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Mr MEADLEY:** Yes.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Mr MEADLEY:** Yes.

**CHAIRMAN:** Mr Honnef, in what capacity are you appearing before the Committee?

**Mr HONNEF:** As Planning Officer.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Mr HONNEF:** Yes, I did.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Mr HONNEF:** Yes.

**CHAIRMAN:** If you should consider at any stage during your evidence that, in the public interest, certain evidence or documents you may wish to present should be heard or seen only by the Committee, the Committee would be willing to accede to your request and resolve into confidential session. However, I must warn you that the Parliament may override our decision and that your evidence may be made public. Bob, would you like to make an opening statement before Committee members ask questions?

**Mr MEADLEY:** For the council and the Health Department, since 1991 I have carried out sampling of rainwater tanks and water supplies in rural areas on four or five different occasions. In 1991 to 1992 I assisted the Health Department. In 1993-94 they requested further information on how far pesticides drifted. And I did it again in 1996 and also last year, 1998, to try to confirm how far endosulfan chemicals drifted in the

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environment. My calculations reveal that it drifts at least 11 kilometres at very low levels, well below NH&MRC levels.

**The Hon. J. R. JOHNSON:** Was that on the periphery or in close?

**Mr MEADLEY:** That is fairly well on the periphery and well away from the crop that is being grown.

**The Hon. J. R. JOHNSON:** Is it stronger in close?

**Mr MEADLEY:** Yes, at higher levels, but still again well below NH&MRC levels. The highest level, in all my samplings since 1991, was 1.7 micrograms/litre. That is a very low level.

**CHAIRMAN:** What are acceptable levels, in your view?

**Mr MEADLEY:** The acceptable levels under the NH&MRC are much higher than that. It is outside my expertise to say whether those levels are in any way harmful. I just don't know the answer to that. The principal reason that I carried out the testing was so that the Health Department would know how far the chemicals drifted.

**CHAIRMAN:** You have given us a document. Would you like to table that?

**Mr MEADLEY:** I understood from Steve that that was the procedure. I also understand that you need four copies. I am sorry, but I prepared it all on Friday, and that was as far as I could go. But you have got one copy of everything that I wish to submit.

**Documents tabled.**

**CHAIRMAN:** Do you want to make any further statement, or will we go straight into questions?

**Mr MEADLEY:** That is all I have to say.

**CHAIRMAN:** We have a series of questions which, if we do not get round to asking them, we will ask you to respond to on notice. Who is on the Narromine Chemical Liaison Committee?

**Mr MEADLEY:** Two growers of cotton, two non-growers of cotton, myself, the Environment Protection Authority sitting as an observer, an agronomist, two spray applicators and two concerned citizens. The independent chairman, just recently appointed, has been the mayor of Narromine, but the committee has had a reasonably successful year this year, and we have not had a meeting. We have been able to resolve the complaints that we have by using the executive, which is either myself or one of the cotton growers on the committee whose name is Trace Mayes.

**CHAIRMAN:** Th two non-cotton growers who are farmers, are they cattle growers?

**Mr MEADLEY:** Yes, they are. One of them is David Kinsey and the other is Stuart Crawford. Stuart is a mixed farmer now; I think he does grow some cotton out there now.

**The Hon. J. R. JOHNSON:** How were they elected or chosen?

**Mr MEADLEY:** There were two public meetings, and all that information is in there. They were eventually selected at one of the public meetings that were held.

**CHAIRMAN:** What problems do you encounter with the aviation chemical evaporation pond at the Narromine airport?

**Mr MEADLEY:** It does get odorous at times.

**CHAIRMAN:** Could you explain to the Committee what it is there for?

**Mr MEADLEY:** Chemicals are applied by plane and the residues are washed off onto a concrete slab, which is graded to what is called an evaporation pond, and those chemicals are washed off that and into this pond, which is fenced. At times it does smell, but it is not a major problem. But occasionally it does smell and it needs either more water added to it to dilute it or else it could be oxygenated.

**The Hon. I. COHEN:** When you are saying it is not a major problem, what analysis have you made of what is occurring in the surrounding area? You say it is not a major problem, but we have chemical cocktail there, presumably.

**Mr MEADLEY:** That is right.

**The Hon. I. COHEN:** How are you assessing that?

**Mr MEADLEY:** The Environment Protection Authority principally assessed it.

**The Hon. I. COHEN:** Has the Environment Protection Authority tested the water at various intervals? What is the testing regime?

**Mr MEADLEY:** I have not been privy to what the Environment Protection Authority has done. You would have to ask someone from the Authority.

**The Hon. I. COHEN:** Do they come out at a regular interval and notify council that they are going to test?

**Mr MEADLEY:** No.

**The Hon. I. COHEN:** So you have no idea what the regime is?

**Mr MEADLEY:** No. But I wouldn't think it would be very often. I think it would be more on a complaint than anything else.

**CHAIRMAN:** There were some telephone calls made in school time, so it must have been at the end of November or early December last year, when a school bus was sprayed with a chemical.

**Mr MEADLEY:** That was the unfortunate incident this year.

**CHAIRMAN:** Can you tell me where that is up to?

**Mr MEADLEY:** What happened was that the school bus driver pulled up in front of my home with the school students on board, very upset that he had been sprayed by a chemical on the backwater road. I asked the students if they were okay. Most of them said that they were okay. I think they thought that they were going to score a day off school, but they weren't that lucky; they had to go to school. And, as soon as the bus went back to the depot, which is the chap's home, I went round and swabbed the bus, put all the swabs in a container, put them in the council fridge and contacted the Environment Protection Authority on their hotline.

Late that day the Pesticides Inspector came out and took the swabs from me and took them away for analysis. I have not received anything back in writing on the swabbing, but I understand that it was negative. There was no tracing. But, if you know something more than I know, I would appreciate knowing it. But I have not heard anything more on that. I did inquire, and that is what I was told.

**The Hon. J. R. JOHNSON:** You did not hear that it had any detrimental effect on the children's health?

**Mr MEADLEY:** No, I didn't, Mr Johnson. But it was a fairly bad one, and it occurred in an area where there were lots of trees. I put it down to the fact that there was no signage or a farmer on the road letting the bus people know what was going on. That is where the system will always fall down. If they don't put their signs out and take them away when the spraying is finished, or unless there is a physical presence on the road. If there had been a physical presence, everything would have been okay.

**CHAIRMAN:** The bus drivers have a two-way radio on the bus, don't they?

**Mr MEADLEY:** Yes, they have. We have all the bus timetables, but it didn't work too well on that last occasion, did it?

**CHAIRMAN:** I understand the excuse was that the bus driver came three minutes early.

**Mr MEADLEY:** That may be. We went and had a look at the site. It was fairly well wooded there, and perhaps there was some room for the pilot to say he did not see it. But it was very unfortunate.

**CHAIRMAN:** Do you have guidelines that they should put out road signs when they are undertaking spraying?

**Mr MEADLEY:** Yes.

**CHAIRMAN:** It just did not happen that day?

**Mr MEADLEY:** That is right.

**The Hon. I. COHEN:** On that issue: you are saying there was a complaint. When the bus arrived at the school did you question the children? You swabbed the bus on the outside, I presume. Was there evidence of any spray or any contaminant on there?

**Mr MEADLEY:** No, there was not. I took about 15 or 16 swabs, and that afternoon when the inspector from the Environment Protection Authority came out he swabbed the bus internally as well. I would have thought he would not have got a good a result as I would have got because I did it within 15 minutes of the bus pulling up at my place, or thereabouts anyway. It was not a long period of time after. He did not come out until seven or eight hours later, or something like that.

**CHAIRMAN:** Is that the Environment Protection Authority in Dubbo or in Bathurst?

**Mr MEADLEY:** In Dubbo, Angus McDonald.

**The Hon. J. R. JOHNSON:** Do you get many complaints as a result of aerial spraying?

**Mr MEADLEY:** The Narromine Chemical Liaison Committee has been able to assist the Environment Protection Authority in reducing the number of complaints. There is no doubt about it: Cotton Australia don't want complaints, and the best way to resolve the problem is to have a committee, especially with a couple of very prominent cotton growers on it, to ensure that these problems don't occur. What happened in the 1998-99 season has been that we have been able to resolve them in-house by using either myself or Mr Mayes to go out and research these problems and solve them. A couple of them were ones that could have been fairly major.

**The Hon. J. R. JOHNSON:** Have you heard of any effects on the citizens that have caused the Health Department any concerns – where doctors or local hospitals have reported maybe birth defects in not only humans but in cattle, et cetera, and where the Health Department has either, on an area basis or a State basis, put out any reports?

**Mr MEADLEY:** I think that the draft report put out by Victor Paskovich as a result of the 1991-92 sampling, which was the first one I became involved in, was a fairly useful report on those issues. As far as personally, I do not know of any, but I do know that at one particular time I visited a property not long after a spray event, and I

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noticed that I was affected as well, very slightly, in the throat, the same as the lady concerned who had run up and complained.

**The Hon. J. R. JOHNSON:** You went out how much later?

**Mr MEADLEY:** Ten minutes, I suppose, or 15 minutes – somewhere about that. And that is the only time. I do know that the concerned citizens of Narromine are all in the Operation Baseline program, and I am quite sure that other witnesses would have mentioned that to you. They are all having their blood sampled before, during and after the season, and they are having those samples analysed. You should speak to them more about the results that they are finding.

**The Hon. J. R. JOHNSON:** Is the council concerned about collating evidence?

**Mr MEADLEY:** Well, in hard form. All those complaints are kept on council records, and have been for the past three years since the Narromine Chemical Liaison Committee started, and even some before that.

**The Hon. J. R. JOHNSON:** What are they showing up?

**Mr MEADLEY:** They are showing up, thankfully, a decline in the number of complaints. In recent months, Mr Honnef and council have worked out a system to minimise spraying events close to the urban areas by requiring new growers to adopt certain other standards. Mr Honnef could fill you in more on that, if you wish him to.

**CHAIRMAN:** Perhaps at this stage Mr Honnef might like to make a statement.

**Mr HONNEF:** I will read a statement. The first part is to do with “Land Use Implications of Pesticide Use in Intensive Agriculture”. Agricultural land uses within the “General Rural” 1(a) zone of Narromine Shire Council’s local environmental plan are currently permitted without development consent, provided they are not intensive livestock holdings or any other use which comes under Designated Development in the Environmental Planning and Assessment Act.

The reason for requiring development consent for any land use is to assess its impacts and to minimise conflicts that a particular use may cause to surrounding land uses. The use and management of pesticides in intensive horticultural developments can impact onto surrounding land uses, be they residential or other agricultural uses, if they are not carried out in a suitable manner.

For this reason, some councils have attempted to require development consent applications for intensive agriculture, such as cotton. To overcome this problem, Narromine Shire Council is looking at another option for minimising the impacts of conflicting land uses. Our concerns are not what type of agricultural land use people have or where they have it; our main concern is how they are carrying it out and what impacts they are having on the surrounding land uses.

So the direction that council is taking is to have a suitable policy in place to ensure that the operations of intensive horticulture, such as cotton, is carried out using best management practices where they are available. Council currently has an intermediate policy in place for any new cotton developments. This policy was discussed with Cotton Australia prior to it being introduced. I will read out what our current policy says:

*The development of new Cotton farms within 5km from the edge of the 2(v) zones [which is the urban zone] within Narromine Shire is permissible subject to an internal audit of Best Management Practices to be completed prior to the first sowing (of cotton). Growers will need to attempt to achieve an external audit within the first 3 months of the first sowing.*

*Certification of external approval is to be obtained before the second crop is planted.*

*The development of Cotton beyond 5km from the edge of the 2(v) zone is to be carried out in accordance with the Cotton Industries Best Management Practices Manual (December 1997) or any standard that supersedes it, in accordance with the Industry Implementation Programme.*

Our next step will be to include all intensive horticultural land uses in our new development control plans covering “complying development” and “exempt development”. This will enable council to allow such developments provided they are carried out using best management practices and any other guidelines in place. I think our approach of focusing on the practices used by the agricultural industry, rather than limiting where such industries are to be located, will ensure that these industries can operate successfully next to other land uses without adverse impacts. However, to achieve this we will obviously need appropriate guidelines for industry and other departments.

**The Hon. J. R. JOHNSON:** In the first part of your statement you said something to the effect of “approved use”. Have you got that there?

**Mr HONNEF:** Approved use or consent, yes.

**The Hon. J. R. JOHNSON:** Is that before you can actually plant cotton?

**Mr HONNEF:** Of the actual policy, sorry?

**The Hon. J. R. JOHNSON:** No. It was one of your statements in your opening address. It was to the effect of approved use.

**Mr HONNEF:** Do you know what the context of it was?

**The Hon. J. R. JOHNSON:** I have just told you. However, I will have a look at your statement later. Further down, you made a statement that other councils

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required approval before cotton could be planted, that the person wishing to undertake that enterprise has to have development approval.

**Mr HONNEF:** What I said is that, currently, under our local environmental plan --

**The Hon. J. R. JOHNSON:** No, not yours, but others.

**Mr HONNEF:** Yes. They require development consent.

**The Hon. J. R. JOHNSON:** What others?

**Mr HONNEF:** Dubbo City Council, for instance, requires a development application.

**The Hon. J. R. JOHNSON:** But "others" is more than one. Do you know of any others, other than Dubbo?

**Mr HONNEF:** I do not personally, but I could get that information for you.

**CHAIRMAN:** You talked about the next stage of going on to include horticultural uses in your new development control plans.

**Mr HONNEF:** Yes. That is not to just focus on the cotton industry, but also other intensive horticultural industries or agriculture industries which use aerial spraying or other spraying.

**CHAIRMAN:** Have you got some examples of that?

**Mr HONNEF:** We have got lettuce growers and other horticultural uses within the shire.

**CHAIRMAN:** But they do not use aerial spraying. You would need undertake aerial spraying for 25 acres of lettuce.

**Mr HONNEF:** That is only with aerial spraying, but also ground rig spraying, that we require best management.

**CHAIRMAN:** What conditions do you have on boundary spraying?

**Mr HONNEF:** Off the boundaries? How far, do you mean?

**CHAIRMAN:** Yes.

**Mr HONNEF:** So far, we have a consultant coming in. He is looking at the cotton industry's best management practices and guidelines. So we are still in the process of coming up with some dead-set guidelines.

**The Hon. I. COHEN:** So, at the present time, it is unregulated – you have not got any regulations in place?

**Mr HONNEF:** No.

**The Hon. I. COHEN:** I know you are saying that you will, but at the moment it is pretty much open slather.

**Mr HONNEF:** What we require at the moment is that they show us the audit that they have done. So that, over the next few months, we will be trying to iron it out. At the moment, we are discussing it with industry.

**The Hon. I. COHEN:** Mr Meadley, you mentioned a consultative body that was set up.

**Mr MEADLEY:** The Narromine Chemical Liaison Committee.

**The Hon. I. COHEN:** On that committee you have got two growers and two non-growers. How were they selected? You said that was done at a public meeting. What was the process? Was it a public meeting called by council?

**Mr MEADLEY:** Both meetings were called by council.

**The Hon. I. COHEN:** And these people were elected?

**Mr MEADLEY:** Yes, that is right.

**The Hon. I. COHEN:** How many people were at the meetings?

**Mr MEADLEY:** I think there were about 30 or 40 in the first one. The minutes of those meetings are with you.

**The Hon. I. COHEN:** Are they a cross-section of the community? How was it advertised?

**Mr MEADLEY:** It was advertised in the normal manner, in the media. It was not a major publicity event though.

**The Hon. I. COHEN:** The two non-growers of cotton were cattle growers, is that correct?

**Mr MEADLEY:** Yes.

**The Hon. I. COHEN:** And they are people who have been active in this area, are they?

**Mr MEADLEY:** Yes. David Kinsey, especially, has been active on the committee. That is correct.

**The Hon. I. COHEN:** What would you say if I put it to you, Mr Meadley, that there has been a fair degree of intimidation of people in the community who have been speaking up against the cotton industry? Is there any validity in that at all?

**Mr MEADLEY:** No-one wants to see intimidation of any sort.

**The Hon. I. COHEN:** We would all agree with that. But has there been intimidation? Is that a reasonable statement to make? Does the committee reflect a broad cross-section of the community?

**Mr MEADLEY:** In my opinion, the committee has been viewed as acting reasonably favourably by the concerned citizens, yes. The interesting part about last season was the concern expressed by cattle growers with the cotton industry. That in itself has been very useful in resolving further problems with regard to cotton sprayers. There is no doubt about that – absolutely no doubt.

**The Hon. I. COHEN:** You mentioned the taking of the swabs from the bus involved in the school bus incident and you said that the result of the analysis of those swabs was negative. Could you comment on whether your council has the expertise and resources to effectively manage, for example, the issue of penalty notices and undertake all the processes of policing inappropriate practices?

**Mr MEADLEY:** Well, to get the resources to do all those things would be a bit difficult. The Environment Protection Authority itself has only one Pesticide Inspector to look after a substantial portion of New South Wales. I think we are able to react to problems when they arise. The new protection of the environment legislation is helpful to us. We certainly have not issued any penalty notices under that section yet, but, gradually, everyone is becoming more aware of these things, and penalty notices are a matter of course for council – mostly in dog infringement and litter infringement notices today, much more than they were five or six years ago. It think it is a gradual tightening of the screws, as perhaps a way of putting it.

**The Hon. I. COHEN:** Has your council received any complaints or expressions of concerns by workers within the council who use chemicals?

**Mr MEADLEY:** There was another complaint received this year from the actual workers of the council who had been sprayed on a road.

**The Hon. I. COHEN:** They were sprayed whilst working on a road?

**Mr MEADLEY:** That is right.

**The Hon. I. COHEN:** Were they sprayed by a ground rig?

**Mr MEADLEY:** No, by an aerial spray.

**The Hon. I. COHEN:** What action occurred in that?

**Mr MEADLEY:** They filled in a complaint form. I got a response form from the actual aerial applicator. The matter was then referred to the growers, the people who should have had signs out or should have had a physical presence on the road.

**The Hon. I. COHEN:** Was there any action undertaken?

**Mr MEADLEY:** No.

**The Hon. I. COHEN:** Was there any action on behalf of the workers?

**Mr MEADLEY:** No.

**The Hon. I. COHEN:** Has there been any medical testing of them to see if there will be any long-term implications of that spraying?

**Mr MEADLEY:** Not that I am aware of.

**The Hon. I. COHEN:** How does that comply with occupational health and safety measures in terms of looking after your council employees?

**Mr MEADLEY:** I would say it is probably fairly marginal. But what you must remember is that the guidelines are only voluntary, the chemical application guidelines.

**The Hon. I. COHEN:** Nevertheless, you had workers who made complaints. Where have those complaints gone, and where should they have gone?

**Mr MEADLEY:** I don't know. I referred the response, and I sent a copy of the response back to the principal complainant, a chap whom I know quite well on council, and I suggested to him that it might be a matter for him to raise through the occupational health and safety committee of council.

**The Hon. I. COHEN:** He was the property owner?

**Mr MEADLEY:** No.

**The Hon. I. COHEN:** A staff member?

**Mr MEADLEY:** Yes.

**The Hon. I. COHEN:** He has not taken that matter further?

**Mr MEADLEY:** I don't know. I only get called into the occupational health and safety meetings occasionally. I don't go to a lot of those meetings. He could have, but I am not aware of it.

**The Hon. I. COHEN:** Have there been any complaints over the release of contaminated tail waters into the environment? You mentioned before the risk of release of contaminant in the environment, is that correct?

**Mr MEADLEY:** I think there is.

**The Hon. I. COHEN:** When you say you think there is, are you basing that on any facts? It is all very well to think there is, but does your council undertake monitoring, or regular assessment? You have major chemical industries here, and you know where the water is running out. Do you test on a regular basis?

**Mr MEADLEY:** As far as I am aware, there is no tail water that is not recycled on the properties. As far as I am aware, there are none.

**The Hon. I. COHEN:** So nothing escapes?

**Mr MEADLEY:** That is right.

**The Hon. I. COHEN:** Not even in times of flood?

**Mr MEADLEY:** Well, that is right.

**The Hon. I. COHEN:** A witness told this inquiry today that fish were actually found in the dam, and they had got there through flooding conditions. So, although fish can get into the dams, you say there is no escape of water from the dams?

**Mr MEADLEY:** Oh, well, 1990 was a tremendous year, and you could well be right about 1990. Those were flood conditions, weren't they?

**The Hon. I. COHEN:** That is certainly a time when there is an escape.

**Mr MEADLEY:** One would hope that there would be substantial dilution of any concerns.

**The Hon. I. COHEN:** I have got a media release from the Minister Land and Water Conservation dated 17 July 1996. In it, the Minister says:

*The Central and North-west water quality program technical papers released today show:*

- *a general increase in pesticide concentrations during the past three seasons in the Namoi and Border Rivers basins. Levels in the Gwydir and Macquarie Valleys have remained the same.*

Do you have any comments on that?

**Mr MEADLEY:** I am fully aware of those reports, and I was pleased to hear the principal phrase that the Macquarie Valley has remained the same.

**The Hon. I. COHEN:** That has remained the same in terms of an unregulated industry. You have just said that you are going to regulate. Is that acceptable?

**Mr MEADLEY:** The Macquarie Valley has a very good record, going back many, many years, and I am very pleased that it has that record.

**The Hon. I. COHEN:** Do you have records of testing of the rivers?

**Mr MEADLEY:** Testing of the rivers?

**The Hon. I. COHEN:** Yes.

**Mr MEADLEY:** Yes. That is carried out at least twice a year.

**The Hon. I. COHEN:** Do you have those figures? Are they accessible? Could this inquiry perhaps get access to those?

**Mr MEADLEY:** Yes. I did not bring them with me, but you certainly could.

**The Hon. I. COHEN:** Could you take that on notice? These are historical figures which might be of value.

**Mr MEADLEY:** Sure.

**The Hon. I. COHEN:** Do you have in your council area any reports of damage to other crops from spray drift?

**Mr MEADLEY:** There have been concerns with the use of herbicides. I am not aware of any that have come through council though. There have been a couple that have come to the Narromine Chemical Liaison Committee, and we have referred them on.

**The Hon. I. COHEN:** To where?

**Mr MEADLEY:** To the farmers concerned.

**The Hon. I. COHEN:** Is there any punitive action at all, or was it just in an advisory capacity?

**Mr MEADLEY:** There is no punitive action as far as the committee is concerned, but the farmers concerned may have taken their own private action. But I don't know.

**The Hon. I. COHEN:** What, and fined themselves?

**Mr MEADLEY:** Well, take legal action against the adjoining farmer.

**The Hon. I. COHEN:** Does it seem a little lax, perhaps, that in such a topical area we have no real controls as yet? You are saying they are on the way, but we have a committee that just advises the perpetrator of the chemical misuse and nothing comes of it. Do you think that that would be a reason for cause in the community, that there are very loose guidelines on what are major chemical usages in this area, an area covered by your council? Does that concern you?

**Mr MEADLEY:** It would concern me if any of the health indicators were of a serious nature. So far, all health indicators that we appear to have in our area do not indicate any problems.

**The Hon. I. COHEN:** So there is no evidence, through your medical records in the local area, of chemically-induced health problems?

**Mr MEADLEY:** I would not have access to any of those local ones, but there are certainly none on a State basis. The recently-released Cancer Council figures put out by the New South Wales Health Department showed that the major cotton producing areas of New South Wales all appear to be at or below the State average as far as cancers are concerned. I live in the area too, and I am as much concerned as you are about those sorts of things, because I have spent 35 years of my life in the western area of New South Wales. I take this matter very seriously because I certainly do not want to die of cancer – not from that area anyway.

**The Hon. I. COHEN:** Other than chronic fatigue syndrome, there was nothing like children having rashes and respiratory problems? Do you have any evidence of that, anecdotal or official? Did the council undertake to communicate with the department about those types of figures?

**Mr MEADLEY:** No, there has been no real research in that area undertaken by me. You would have to speak to the local doctors about that; I couldn't really help you there.

**CHAIRMAN:** The Environment Protection Authority draft paper raised the question: Should there be contributory liability by the farmers? In other words, at the moment, the Environment Protection Authority cannot proceed very successfully in court anyway with litigation against a sprayer under the Act. But, at the moment, there is no contributory liability in the farmer. In a situation where you have local guidelines, and those guidelines say that the farmer should put out signs to warn that spraying is being undertaken, in case a bus should come along, is that then an example where you consider the farmer should have been liable, or at least shared some of the responsibility?

**Mr MEADLEY:** Well, certainly, it is poor form if they do not carry out those guidelines. I believe that in the eight years that I have been sampling, it is very pleasing to see that the restrictions on the use of chemicals on crops for the next season. But I think, personally, that endosulfan should be banned. That would resolve the majority of problems as far as my testing is concerned, and it would probably resolve a lot of the concerned citizens' worries as well. That appears to be the chemical that you

pick up all the time. That seems to be the one that has some residual life in it. The others appear to break down fairly rapidly.

**CHAIRMAN:** Is there any other choice with regard to heliothis?

**Mr MEADLEY:** There are a lot of choices. There are a lot of chemicals that they could use instead of endosulfan. Endosulfan is a cheap chemical, and it is a very interesting chemical, and it does not appear to have been able to produce resistance; the insects have not been able to produce resistance to it in the 40 years that it has been on the market. It is an amazing chemical, there's no doubt about that.

**CHAIRMAN:** It is a question we will ask some of our later witnesses, particularly from Nufarm. There was some discussion about the Environment Protection Authority chasing these people up. Do you think the Environment Protection Authority has enough resources? Do you think, if there were enough teeth put in the Act, the Environment Protection Authority would have enough resources?

**Mr MEADLEY:** They have got nowhere near enough resources; they couldn't possibly have. I mean, Angus is a very dedicated officer, but there is only one of him. If he gets a complaint at Condobolin, where they are going to be growing cotton this year, and then he gets another complaint at Trangie, he would want to be good! That is why you need these committees forming, and they are forming in most of the shires today. They seem to be performing a useful service.

The balance of the committees is an interesting one. The argument has been raised that our committee is industry-oriented. I would agree with that; it is. By the same token, problems appear to be reducing, and that is what we want.

**The Hon. I. COHEN:** In terms of the selection of that committee, were you there at that selection process?

**Mr MEADLEY:** Yes. I am still the foundation secretary.

**The Hon. I. COHEN:** Of the people from the community that were there, was anyone refused representation on the committee?

**Mr MEADLEY:** Yes.

**The Hon. I. COHEN:** Who was that?

**Mr MEADLEY:** The committee did not wish to work with Mrs Shirley Jeffery.

**The Hon. I. COHEN:** Why was that? Did she not constitute a valid representative?

**Mr MEADLEY:** I think that they felt that the committee would not be able to do constructive work, and that it would be too disruptive. They were all giving of their time for free.

**The Hon. I. COHEN:** So was she, surely?

**Mr MEADLEY:** Obviously. But there were no payments or anything towards this committee. I think at a later stage that view changed a bit, but certainly at the formation of the committee that was the view.

**The Hon. I. COHEN:** So the committee was simply selected, or partially selected, but there were people from the community with a valid interest in the issue, and they were blocked from being on the committee?

**Mr MEADLEY:** Well, there were two to be put on it, and the two that went on it had valid reasons to be on the committee as well.

**The Hon. I. COHEN:** What do you mean by valid reasons?

**Mr MEADLEY:** They were concerned citizens as well.

**The Hon. I. COHEN:** And the concerned citizens were blocked by whom? Was it by the majority of the committee, as one would presume?

**Mr MEADLEY:** Yes.

**CHAIRMAN:** So you are saying that there were two slots available?

**Mr MEADLEY:** Yes, two slots.

**CHAIRMAN:** And there were more than two people who wanted to go on the committee?

**Mr MEADLEY:** That is right.

**CHAIRMAN:** How was it worked out who went on the committee?

**Mr MEADLEY:** The committee in general – the public committee in the first place.

**The Hon. I. COHEN:** So it was not exactly an open election of members of the committee?

**Mr MEADLEY:** No. Sometimes it is hard to get people to serve on the committee, and you really do need cotton growers on it to solve these problems.

**The Hon. I. COHEN:** I appreciate that. You have got cotton growers on it. But perhaps you also really need to have environmentalists or concerned community

members on it with a contra position, so that you will have a committee that functions in a balanced way. Would you not agree with that?

**Mr MEADLEY:** I do believe it does function in a balanced way.

**The Hon. I. COHEN:** I did not actually ask you that question.

**Mr MEADLEY:** I know. I agree with what you are saying. There are two very dedicated concerned citizens on the committee who keep the committee on its mettle. They do.

**CHAIRMAN:** There are some questions that I would ask you to take on notice. Those questions will be in the transcript that you will receive. If you might send in some supplementary answers to those. Those questions are:

1. Can Narromine Shire Council outline the types of activities the Council or its contractors conduct that involve the use of pesticides (including fungicides and herbicides)?
2. Can Narromine Shire Council provide an estimate of the volume of pesticides applied by the Council and its contractors in any given year?
3. What local environmental plan or policy initiatives, such as buffer zones, have Narromine Shire Council employed to address incompatible land use regimes?

(The witnesses withdrew)

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**AMANDA JO-ANNE PAHL**, Secretary, Mudgee District Environment Foundation, of Unit 2, 6 Market Street, Mudgee, and

**BEVERLEY SMILES**, Secretary, Central West Environment Council, of Inana, Wollar, affirmed and examined:

**CHAIRMAN:** Amanda, what is your occupation?

**Ms PAHL:** I am a single mother.

**CHAIRMAN:** In what capacity are you appearing before the Committee?

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Ms PAHL:** I did.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Ms PAHL:** Yes.

**CHAIRMAN:** What is your occupation?

**Ms SMILES:** I am a small farmer who grows both organic vegetables and sheep. I am also the representative of the Nature Conservation on the Macquarie River Management Committee, and I appear as the Secretary of the Central West Environment Council.

**CHAIRMAN:** in what capacity are you appearing before the Committee?

**Ms SMILES:** Secretary of the Central West Environment Council.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Ms SMILES:** I did.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Ms SMILES:** Yes.

**CHAIRMAN:** If either of you should consider at any stage during your evidence that, in the public interest, certain evidence or documents you may wish to present should be heard or seen only by the Committee, the Committee would be willing to accede to your request and resolve into confidential session. But I should

warn you that the Parliament may override that decision at any time and make your evidence public. Who would like to make a statement?

**Ms PAHL:** Today I am representing the Mudgee District Environment Foundation, but I am also a member of the Mudgee Health Council and a member of the Living With Agriculture Committee, another name for the Chemical Liaison Committee in Mudgee. I am also a voluntary member of the New South Wales Health Reference Group – unpaid in all positions.

I would like to begin today by saying that problems with chemical application are not universal. They are usually very site specific and caused by a combination of crops being grown, chemical application practices and features of the environment. In the Mudgee region I believe four local factors contribute to problematic chemical drift. The first is that Mudgee itself is a site specific problem. We have a rapidly expanding local wine industry. There is a lack of industry training, and there is certainly a lack of enforcement agencies. Those who are risk are vineyard workers, rural residents, Mudgee residents, our natural resources, and other industries in our area.

Mudgee itself is situated 260 kilometres north-west from Sydney on the Central Tablelands at about 425 metres above sea level. The surrounding mountains and hills can elevate to 1,000 metres. The township itself is placed at the bottom of this large fertile valley, and its aboriginal name means “nest in the hills”. Our distinctive geographic and climatic conditions create unique temperature, wind and atmospheric patterns, and in particular air inversions, that assist off-target agricultural chemical drift and may unknowingly impact on the health of the community and surrounding industries.

Mudgee is renowned for quality wheat, sheep, cattle, lucerne, honey and wine production. Coal, fine wool and red meat also play a significant role. A dramatic increase in the planting of grapevines has seen a 400 per cent increase in three years, and the local industry plans to double again in as little as 12 to 24 months.

Evidence already suggest that inter-industry conflicts are currently arising regarding chemical use, seasonal timing and conditions. We do not know the amount of chemicals being used locally, the types of chemicals being used across the industries or the subsequent interactive effects. However, we do know that the 1993 Hunter Valley Vineyard Workers Health Surveillance Program suggests that the amount of chemicals applied to the same amount of land under vine – which at the moment is only about 4,000 hectares – was approximately 50,000 litres of wet chemicals and 45,000 kilograms of dry chemicals for one valley, for one industry, and for one year.

Young, inexperienced or needy workers are often used in these rural areas, with little or no training, no protective clothing, or no washing facilities. The importation of non-English speaking casual workers doing night spraying work creates further risks if they are unable to read or understand basic requirements. In such a small community such as ours, and with so little work available, people feel cautions about criticising.

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As farming activities become more intensive, so does the need for local monitoring and regulation. There has been a significant increase in the number of complaints of spray drift in the Mudgee shire from both community and industry. In February 1999 the Mudgee Health Council addressed the Mudgee Shire Council and requested a pesticide liaison committee. Council resolved to form a Living With Agriculture Committee, the first objective of which was “to develop a strategy to minimise land use conflict between rural dwellers and legitimate farming practices”.

Results of health surveillance tests of vineyard workers and spray operators in the Hunter Valley have flagged a warning to pesticide users to minimise risk. There is evidence to suggest that direct contact operators, such as vine handlers, may be at greater risk than trained spray operators, but that they may not in turn be protected by equipment, training or existing legislation.

In the early 1970s Mudgee shire encouraged diversity and community in outlying areas of the shire through the establishment of 4,000 10-hectare land divisions. Twenty-five years later, in December 1998, council adopted an “Intensive Agriculture for Rural Lands” note which supports large and intensive agricultural activities. These two policies’ aims conflict with one another. There is no development control plan. There has been no allowance for buffer zones et cetera in our local environmental plan.

Mudgee has a resident population of approximately 8,000, with another 8,000 in the outlying villages. The nearby town of Gulgong consists of another 2,000 residents, and the region can accommodate another 1,100 overnight visitors. Mudgee town residents may be unknowingly placed in the high risk exposure group, as they exist unaware of surrounding agricultural activities and risks.

Mudgee itself lies on the banks of the Cudgegong River in the upper catchment area of two major river systems – the Macquarie and the Goulburn. The Cudgegong Valley alluvial aquifer water is placed in the highest beneficial use category, that is, the town water supply. The Department of Land and Water Conservation recently identified this aquifer as “at high risk”, as the overlying soils are relatively permeable and the water table is shallow, allowing a good hydraulic connection to assist the short passage of pollutants from overlying land use activities. Future decisions about land use and management practices will need to take into account the overall implications on regional water quality.

The great demand for international markets is for residue-free or organic produce. In April 1998 the Australian wool industry lost millions of dollars of overseas orders as manufacturers switched to competing countries rather than face the increased risk of contaminated, unregulated Australian wool – possibly the best wool in the world.

In February 1999 the Australian beef industry was devastated at the results of endosulfan chemical residues in beef rejected from South Korea. The entire meat export market of \$3.4 billion has been hanging in the balance as industry tries to come to terms with the need for regulated and safe practices. Once again the product may be the best in the world, but unregulated industry standards are not.

Chemical residues are a potential health risk to products other than meat. Endosulfan is officially approved for use on 142 crops, and it is popular in the fruit and vegetable industries, despite the fact that it is listed as a potential disrupter of the human endocrine system.

This leads me to a page of conclusions. The conclusions I have come to are that there is no knowledge of the amount of chemicals being used regionally. There is no knowledge of the cross-section of chemicals being used regionally, that is, in local vineyards, cattle, sheep, pastures and so on. There is change in chemical reactions under varying climatic conditions. Off-target agricultural chemical drift does occur, with impacts on the health of the surrounding communities and industries.

Industry self-regulation of safe, legal chemical use does not work and is failing rural communities and threatening export industries. Industry standards must ensure fair and reasonable attempts to manage chemical safety. Industry standards must not require local communities to protect, monitor, regulate and enforce appropriate behaviour.

Public concern about the risks associated with chemical use does translate into loss of confidence in the quality of Australian agricultural produce and restricts access to domestic and export markets. Industry standards for agricultural production practices must ensure we can meet these future export market standards. Industry standards must ensure greater domestic consumer protection from these chemical residue levels. Industry practices need to consider the implications of overlying land use activities on natural resources such as regional water quality. The indirect costs of chemical misuse will ultimately be borne by other industries, that is, the health treatment industry.

As I said, the results of the health surveillance tests of vineyard workers in the Hunter Valley flag a warning to pesticide users to minimise risk. They also suggest that certain workers are at higher risk but are not in turn protected by existing legislation. There is evidence to suggest that with improved practices there are significant decreases in exposure rates for spray operators. Evidence suggests also that with improved knowledge of chemical use we can minimise the risks to local communities, industries and natural resources.

I have a series of recommendations for change as well. But, seeing that the overhead slide projector is not working too well, I will read them out. The recommendations that I would like to make for change are: regional chemical application codes of practice, as each different region has different requirements. I would like to see more appropriate weather stations and forecasts; mandatory chemical user training; chemical user licences; pesticide risk reduction programs; industry best management practices; buffer zones for waterways, towns, neighbours, et cetera; a neighbour notification system; an integrated pest management system; and regional produce maximum residue level checks.

Further recommendations are: industry and high risk residents health surveillance programs; regional air and water quality monitoring programs; the establishment of regional chemical waste sites; carrier vehicle signage and licences; road signage for spray vehicles near major roads; and restriction of carrier vehicles from public centres. I would like to see a regional pesticide register; a regional pesticide cap; the introduction of pollution licences; and incentives for pro-environment activity.

**CHAIRMAN:** Thank you very much for that. Beverley, would you like to make an opening statement?

**Ms SMILES:** Yes. I would like to give you an overview of the region. I have got a map here.

**CHAIRMAN:** We have got that map.

**Ms SMILES:** The Central West Environment Council covers a region from Mudgee, to Bathurst, Parkes, Forbes, Wellington, Dubbo and out to the Macquarie Marshes region. We have members who serve on committees in the Lachlan and Macquarie valleys and vegetation committees are starting to be formed.

**Ms PAHL:** I would like to add that the amount of chemical use that I gave you was related to an area of around 4,000 hectares, whereas in the upper catchment area of the Macquarie, which then flows on through to this area on the map, there are about 2,000 hectares of cotton. So it compounds as it comes downstream, and obviously would have a load effect on the waterways. This then goes on to become part of the Murray Darling Basin, which supplies almost 50 per cent of Australian agriculture. So you can imagine the enormity of the quantity of chemicals being used, the cross-section of chemicals being used, and the load effect as it goes downstream.

**Ms SMILES:** This region has a wide variety of agricultural activities, producing fruit, vegetables, grains, meat, wool, cotton and wine. Over the past 50 years these activities have become more and more dependent on the use of agricultural and veterinary chemicals.

There seems to be no way for the community to determine the annual quantity of chemicals used in this region, or the synergistic effects created by that chemical use. Chemical use seems to become an important issue only when export products are boycotted overseas, or when fish kills are too large to ignore. Yet the effects on human health and ecosystem viability of long-term, systematic chemical applications is not considered.

The Central West Environment Council requests that the Standing Committee on State Development recommend that the New South Wales Pesticides Act be amended to include: rights of notification; local planning controls; to require that intensive agriculture in sensitive areas be designated developments; and provide that there be no reliance on self-regulation.

**The Hon. I. COHEN:** There has been some discussion about elected groups to oversee the industry. You might have heard the previous witness in that regard. Could you expand on the setting up of the Living With Agriculture Committee? How was it actually set up, and is it reflective of community concerns in the area in an open way, or is there an imbalance through the greater representation of industry?

**Ms PAHL:** Since around September 1997 we have seen around 19 publicly recorded calls for drift management. The council was waiting until there was ultimately significant pressure that led to the forming of this committee. There were numerous discussions, and eventually the Mudgee Health Council addressed Mudgee Shire at an open day to publicly request the formation of the committee.

They would not permit the pesticide liaison committee to be established as such; they wanted to call it Living With Agriculture. So we accepted that. There have been four meetings since we were formed in February. I do not believe that the committee will go on to be any great success. The chairman of the committee was appointed by the mayor. He is also the chairman of the Chamber of Commerce and Industry as well as the chairman of the Wine Festival Committee. I do not believe he is acting in a fair manner at the moment.

We have managed to set up an incident reporting system, but I am told that at the moment that the spray season is benign, so that we have to wait for the malignant season to start before we actually get any reports. We may not see that for several months. I don't feel that the committee will get very far in the way of preventative action. To date I have raised half a dozen issues and I have been told that it is outside the scope of the committee; that we are just not there to worry about health and safety concerns; we are actually just there to wait and see what types of incidents occur.

**The Hon. I. COHEN:** You mentioned some 19 calls for drift management. Do you have specific examples of spray drift in the area and problems that have arisen from that?

**Ms PAHL:** For instance, if you look at the overhead, we have the wine growers warning farmers to take care. Every September there is an article in the local newspaper about 2,4-D drift – and 2,4-D is very volatile on its own, but, under our unique valley situation, it is even more prone to volatile conditions and is more susceptible to drift.

**CHAIRMAN:** There are two different sorts of 2,4-D.

**Ms PAHL:** Yes, there are.

**CHAIRMAN:** One is volatile and one is not.

**Ms PAHL:** Yes.

**CHAIRMAN:** We have got copies of that in our papers that you sent to us.

**Ms PAHL:** There are other incidents of drift occurring. One of the largest building companies in the area is preparing a case against our largest wine grower. The building company bought their land about 10 years ago, and the wife is actually multiply chemical sensitive, and as such she has had to go to a lot of trouble to build a case. That will result in litigation probably next year. We have letters from the Wine and Grape Growers Association noting our legitimate spray drift concerns, and we have other letters that have been in the community paper, calling for the same sort of management and confirming the identification of 2,4-D drift.

**CHAIRMAN:** Do you still have the organic wine grower Bill Walchrist at Wollar?

**Ms PAHL:** He has left. The vineyard is still organic. We have about four organic vineyards in the valley.

**The Hon. I. COHEN:** We heard today of persons not using chemicals on their own property but of there being chemical trespass of cotton growers nearby. With an organic producer like that, what sort of distance would they need to maintain their organic certification?

**Ms PAHL:** I am not sure, but under conditions that were actually recorded, the Mudgee Shire Council and I believe the Environment Protection Authority were involved in an incident where sulphur drifted 11 kilometres into town. I am not sure we would have to have, but one of our local shire councillors is also an organic wine grower, and he has about 200 hectares of inorganic grapes being planted at the moment, so we will know the results soon.

**Ms SMILES:** He has a very close neighbour that has some major development happening on the outskirts of Mudgee. Even with the land management practices implemented in setting it up, there was a lot of difficulty even getting the Department of Land and Water Conservation to have a look at what they were doing and being forced to re-vegetate their drainage lines.

**The Hon. I. COHEN:** This is the organic grower?

**Ms SMILES:** This is the inorganic grower. He is across the road from the local shire councillor. So the expectation of the organic grower is that he is going to have to put up indicators on his fence line when the spraying season starts up so that he will be able to measure the level of drift on his property to be able to maintain certification.

**The Hon. I. COHEN:** Would there be any recourse at the present time if that particular person lost his certification due to chemical trespass?

**Ms SMILES:** I am not sure if there has been any precedent of that. For me, the notification issue is very important for people that are certified as organic growers. When you have neighbours who use broadleaf sprays and that type of thing, it is always up to yourself to be the person who will ask them, "What is going on? What

are you using? Are you taking into consideration wind directions?" Legally, at the moment, there is nothing to protect organic producers.

**The Hon. I. COHEN:** Ms Pahl, you gave a number of examples of the international marketplace stopping the inorganic producers in their tracks. Could you give any other examples. You mentioned the wool industry. Is the wine industry being affected?

**Ms PAHL:** I am not sure. I think, locally, the honey production industry is being moved from cotton areas and resettled into other areas. We have a long association in the valley with honey production. It may not be a huge economic factor to us, but I would say that it is certainly having its impact there, for instance. There is conflict occurring in the community between cattle growers and the wine industry itself. I do not have any other types of industries that I can confirm it is impacting on.

**Ms SMILES:** It is mainly the beef industry and the wool industry that have had that international repercussion.

**The Hon. I. COHEN:** Could either of you answer this question. Have you considered the economic and social outcomes for the community of supporting organic and GE-free industry? We do hear significant arguments that, economically, things could go through the floor if there were much tighter controls and farmers were moving across to organic production. Would either of you like to comment on that?

**Ms SMILES:** I think there have already been statements made today about the track we are going down regarding chemical dependence and the possibility of whole food sources crashing through insect resistance. I think the agriculture system has changed over a period of time. I know in the Mudgee area, over say a 25-year period, there are mainly mixed farms, so that people are getting their incomes from a range of enterprises, not just concentrating on a monoculture system.

We have seen the Cudgegong Valley turning towards a very strong monoculture system which sets up all of those problems with increased insect attack and the need for the increased use of chemicals. So it is not something that is going to happen overnight, but we really are talking about the restructure of the agricultural industry away from that increasing corporatisation which downsized the amount of people moving on the ground.

I think an organic agricultural system actually needs more people to be effective. We are probably talking about higher-priced food, but I think that is going to come in the long term anyway, because at the moment the impact on our natural resources and the impact on our soils and those other types of adverse effects are not priced into our agricultural produce.

**CHAIRMAN:** You said that the proposal is to double the wine production in Mudgee vineyards in the next five to 10 years.

**Ms PAHL:** One to two years.

**Ms SMILES:** We have had 3,000 hectares planted in the last two years, and they are big companies. Prior to this time, Mudgee was a producer of small-volume, family boutique wines. Now we have got really big international companies moving into the area, and they are planting 500 hectares in a very short period of time.

**CHAIRMAN:** Do you think they are going to have the water to do that?

**Ms SMILES:** Sitting on the River Management Committee, that is one of the issues that we are having to deal with. The grape industry is a lot more efficient in its use of water because of its use of drip irrigation. It is much more expensive for them to set up. There is already a feeling that the grape industry has outgrown its economic effectiveness. In fact, the industry itself is calling for a halt on new plantings. I know that there are quite a few people in the Mudgee area that have gone ahead and put in acreages with no contracts at all, so they will be dependent on whatever the spot market is.

The jobs that are being created are jobs that are involved in the setting up of the industry – like, putting the posts in, putting the drip watering system in, and putting the plants in. Once the set-up period is over, those jobs disappear. Even though you have got very large areas of land planted now, in the pruning season the employment now is actually smaller than what it was when the wineries were just the small family concerns. Now, there is very tight use of labour.

**CHAIRMAN:** My question to you is that, you being on that Water Management Committee, you would know that there are no new licences being issued, and the reliability is 50 per cent, so that in any given year they could not expect to have more than 50 per cent surety that they will get the water that their licence says they can get. If it says they will get 100 megalitres a year, they can really only expect to get 50 megalitres a year. How are they going to get the water unless they get it from other existing practices?

**Ms SMILES:** The Department of Land and Water Conservation pushed into looking at buying up more licences. Because Windamere Dam is at the top of the system, they are trying to put together a policy to give them that water security. That is one of the jobs that the River Management Committee is balancing: the expectations of water demand in the lower Macquarie Valley, which at the moment is the largest user of water ---

**CHAIRMAN:** The dam was not built for Mudgee vineyards.

**Ms SMILES:** That is not what the community believes.

**CHAIRMAN:** There were not many vineyards there when it was built.

**Ms SMILES:** But they have bought a lot of water from downstream and moved it upstream. The unfortunate position with Windamere Dam is that it is not a

very good catchment for the size of the dam. With the last wet season we have had, the dam has hardly moved. So there has to be a real re-think of that resource issue.

**Ms PAHL:** It is my opinion that the way they have got around it – because I felt sure they had restricted the industry as well – but what they have done recently is that, the town water supply used to come off the ground water, instead of the surface water from the river, and now, after many many years they have decided that if they make the ground water available for other uses, they can take a small percentage of the surface water allocation available to the town itself. So, in the next year, we are about to start drinking river water for the first time in our history, and that will make the ground water available. In my eyes, that would enable another 5,000 to 10,000 hectares potentially available to the wine industry to open up – through the transfer of water that way.

**Ms SMILES:** There are conjunctive licences in the area.

**Ms PAHL:** So the Mudgee townspeople are going to take second-class river water and start drinking it, as opposed to the current system of drinking underground water.

**Ms SMILES:** There has been an embargo placed on two of the ground water zones at the moment, so there are no licences there now. So, all of that is sort of up in the air.

**CHAIRMAN:** The bigger groups interested in going into the Mudgee area have decided – now that they have been told that they will get 50 per cent reliability – have decided to go elsewhere. I really do not think you will find the wine industry doubling in Mudgee in the next five to ten years, except for that fellow who has 4,000 megalitres.

**Ms SMILES:** Yes, the people who are already sitting on the water.

**The Hon. J. R. JOHNSON:** Ms Pahl, you come to us from the Mudgee District Environment Foundation. How many financial members would you have?

**Ms PAHL:** I am not sure how many. I think around 30 or 40.

**The Hon. J. R. JOHNSON:** Beverley Smiles, how many financial members or affiliates do you have in the Central West Environment Council?

**Ms SMILES:** There are a dozen groups in the region.

**The Hon. J. R. JOHNSON:** You held up a map and talked about the devastation that would be wrought on the river and water systems as far as the Murray Darling Basin. Have you got any scientific evidence for that statement?

**Ms PAHL:** No, I don't. It is always the first question asked.

**Ms SMILES:** Actually, the monitoring reports that are coming out of the Department of Land and Water Conservation are showing especially high levels of endosulfan coming out of the northern rivers of New South Wales.

**The Hon. J. R. JOHNSON:** I am asking specifically about the statement that you have made about the Murray Darling.

**Ms PAHL:** I don't have any figures on the Murray Darling, but there are Department of Land and Water Conservation statistics available on the Cudgegong River, which is the area that we belong to.

**The Hon. J. R. JOHNSON:** Thank you.

**CHAIRMAN:** We have a number of questions that we will put on notice. We will incorporate those in the transcript that we will forward to you. Would you answer any of those that you feel we have not picked up on as we have gone through.

**Ms SMILES:** Could I mention something else about organic agriculture. The new policy coming from the State Government on sustainable agriculture covers what we are talking about today and needs reinforcing. Today's process will be helping with this sustainable agriculture policy: that is, to have better informed rural communities and reduced reliance of industry on pesticides. I think the Government is going down the right track with that policy.

**Ms PAHL:** Could I add one thing on a statement that I heard today?

**CHAIRMAN:** Yes.

**Ms PAHL:** You keep asking about information available from general practitioners and Area Health departments. A lot of the information that you give to your local general practitioner is suppressed at the office of the general practitioner due to a degree of confidentiality, so a lot of this information does not get recorded as a statistic as such, unless you go down to the hospital and it is recorded in that way. So we have these huge gaps of information because of the other systems that are in place. I think New South Wales Health needs to address some of the criteria gaps as well.

**The Hon. J. R. JOHNSON:** There are very important reasons for those protocols.

**CHAIRMAN:** We will be talking to the Rural Health Unit in Gunnedah tomorrow, and that unit should have a specific interest in this. So we will ask them about that. I thank you very much for your evidence and for coming along today. The questions on notice are:

1. Could you outline any concerns you have with the "right to farm" style notices that Mudgee Council is distributing to potential purchasers of land in areas zoned rural?

2. Can you outline the reasons behind your submission advocating the introduction of appropriate weather stations and compulsory chemical user licences as possible solutions to pesticide management problems?

(The witnesses withdrew)

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**PETER DUNLOP HOWAT**, Manager, Research and Development, Nufarm Australia Ltd, 103-105 Pipe Road, Laverton North, Victoria, sworn and examined:

**CHAIRMAN:** In what capacity are you appearing before the Committee?

**Mr HOWAT:** In the capacity of Research Officer for Nufarm and representing Nufarm Agricultural Chemicals.

**CHAIRMAN:** Did you receive a summons issued under my hand in accordance with the provisions of the Parliamentary Evidence Act 1901?

**Mr HOWAT:** Yes.

**CHAIRMAN:** Are you conversant with the terms of reference of this inquiry?

**Mr HOWAT:** Yes, I am.

**CHAIRMAN:** If you should consider at any stage during your evidence that, in the public interest, certain evidence or documents you may wish to present should be heard or seen only by the Committee, the Committee would be willing to accede to your request and resolve into confidential session.

**Mr HOWAT:** I have read that, and I do not believe that should be the case.

**CHAIRMAN:** Do you want to make a short statement before we ask questions.

**Mr HOWAT:** I have a presentation that I would like to make, if you do not mind.

**CHAIRMAN:** By all means.

**Mr HOWAT:** I will concentrate in that presentation on the perspective of Nufarm as the largest chemical company in Australia, and put forward some of the things that the company sees in terms of initiation or innovation and diversification of the industry – things that we have done that we believe have helped in the sustainability and changes in the agricultural chemical industry per se that have helped in terms of the management and use of pesticides here in New South Wales but obviously also in Australia.

I have some overheads. You will have received – and I have a copy of – the Avcare submission. That is the industry body. It is to be presented at the Committee's meeting in Sydney in a couple of weeks. I will be referring to a couple of items from that submission. That is not the main part of my evidence. My evidence will really be on what Nufarm has done as a company.

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*Industry Initiatives – Avcare*

These are taken from the Avcare submission, but I want to put them up because they are industry initiatives, but they are also initiatives that Nufarm has become very much involved with in the agriculture chemical industry. You may be familiar with a number of those stewardship initiatives. Operation Clean Rinse was the rinsing of containers before they were disposed of. There was the industry waste reduction program, a very important one being Drum Muster, which was a levy being put on non-returnable containers.

There is a national collection and storage and disposal scheme. And Chemclear was a scheme to take a lot of agriculture chemicals from users and dispose of those appropriately.

Avcare is very much involved in accreditation, both for industry personnel and for premises. Again, for a company like Nufarm, all the staff within Nufarm have to go through Avcare accreditation. Many of the staff are at stage 2 or stage 3 of that accreditation.

There is also another stewardship program put in place called Love and Care. There are some posters around. I am sure that Avcare will show those to you at your meeting in Sydney. That is to show people the hazards of carrying agriculture chemicals in the cabins of standard cars rather than carry them in appropriate cars or vehicles. Those are the strategies that Avcare have put in place, and, as I say, Nufarm, the largest agriculture chemical company in Australia has been involved in that.

*Avcare Accreditation*

Avcare and Nufarm support other industry initiatives, whether from the National Farmers Federation, which has a farm care accreditation scheme which is based very much on the Avcare one. Aerial operators have a spraysafe scheme that they have in place. Again, the agriculture chemical industry is involved in that.

The cotton industry has a code of best management practice that was put together with the input of the agriculture chemical industry. Avcare and Nufarm are also involved very much in sustainable agriculture. Integrated pest management. All the agriculture chemicals that are now put on the market, and have been for the last few years, one of the questions that we ask ourselves as a researcher is: Where does this fit into the scheme in terms of integrated pest management? What effect will it have on beneficial insects?

We have also seen over the last few years in Australian agriculture the adoption of minimum tillage. It has been a very important thing, with farmers changing farm systems for the benefits of reduced erosion and a whole range of things. The chemical industry, of course, is very much involved with that.

Another area in which Avcare and Nufarm have been involved is resistance management. There are a number of Avcare industry bodies that look at resistance

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management, whether it is from insecticides, fungicides or herbicides. Nufarm sits on many of these committees that are held under the auspices of Avcare. So those are two quick overheads to show you some of the things that Avcare, the industry body, has been doing. And Nufarm, as a company, has been involved in those.

### *Nufarm management initiatives*

Nufarm, in their own right, have conducted a number of changes over the last few years, and has embraced a number of initiatives that we see that have helped in terms of management and use of pesticides in New South Wales and in Australia. Nufarm was the first company to be involved in the use of returnable 110-litre drums, or 1,000-litre tanks. The Nufarm names for these are Envirodrum and Envirotank. I have a leaflet here that I will hand on to the Committee. I will talk a little bit more about this later, but that is one of the initiatives of Nufarm.

We have also gone out of our way, particularly in our research and development, to see where we could change products that might have been liquid in form, to dry products. There are many benefits of that, and I will point to some of those as well. We have looked to make higher concentration formulations, increasing the use of higher level active.

I would like to point out also some of the information that Nufarm as a company has supplied to farmers. One of the things that we have seen over the last five to ten years is an increase in the information that farmers are trying to get. Nufarm has responded to that, and I will show you some of the types of leaflets and information that we have provided. I will go through those four points.

The first one really has been, I believe, quite a significant change in terms of farmers' usage or handling of chemicals. That brings me to the use of these Envirodrums or Envirotanks. The Envirodrum itself is a 110-litre tank that is a returnable container. It is fully sealed. It has a lot of benefits. One of the first is that it has reduced operator exposure. He does not actually take the top off the container to tip it out; he actually affixes a hose to that and he can fill his tank straight away. So it has reduced operator exposure. There is no drum disposal; they can return these 110-litre drums or 1,000-litre tanks.

They don't have to triple-rinse them because they don't actually open the container at all. These are very handy for storage or transport, again because they have not been opened. Nufarm as a company has quite a large product range. I will show some of those in a minute.

We actually colour-code these drums to reduce confusion. One product is in a certain colour, and another product is in another colour. We also have some herbicides and insecticides in these special 100-litre drums. To stop contamination with that, the affixing point for the hose from a drum that has herbicides in it has three prongs; and, for an insecticide, it has a four-prong fitting – so that you cannot take insecticides out when you should be looking for a herbicide.

These returnable drums are exempt from this Drum Muster levy, which is 4c a litre on all drums that are not returnable. That came into place from 1 February this year. So this Envirodrum system was introduced by Nufarm, but it is now starting to become a standard for a lot of other agriculture chemical companies.

### *Liquid herbicides available in refillable containers*

Here are a range of products that we as a company would actually provide in these 100-litre drums or the 1,000-litre Envirotank – all refillable containers that the farmers take, pay a deposit on, and then send the drums back to us. We have all the advantages that I showed you in the previous overhead.

### *Percent sales in returnable containers*

I just take some of the products on that list – Trifluralin 480 and Diuron FL. This is the percentage of our sales that are actually in these returnable containers. As you can see, over the last three-year period, there has been quite an increase in the use of these products. We have had some of these products on the market for only four or five years. I was out looking at some of the trials that we had in a farmer's paddock last week, and I was talking to a farmer about these Envirodrums and these containers. His words to me were, "They are the best thing that the agriculture chemical industry has done. He was just rapt in using them.

### *Nufarm management initiatives*

Another initiative that Nufarm has taken and which I believe has helped in the management and use of pesticides in New South Wales is this move into dry products. Some of the benefits of this are listed. Obviously, there is a reduction in the use of solvents; a change in packaging form, going to a form of packaging that can be disposed of; increased safety in handling; ease of measurement; and a whole range of other things that are listed here. That is an initiative that the company has taken to help with the management and use of pesticides.

### *New slide (??)*

First of all, there is a list of products that we as a company have converted from a liquid product to a dry product. We sell them in both forms, but many farmers find them very easy to handle in the liquid form.

### *Dry product adoption*

For interest, there are three products, and the movement from 1994 to 1998. That is information on the adoption of these products in dry form. A couple of them are reasonably slow, but with some of them over 60 per cent of that product is actually sold in a dry form.

**The Hon. J. R. JOHNSON:** What happened between 1994, when it went sky-high, and then down in 1996?

**Mr HOWAT:** In that year there was a shortage of liquid material, and the whole market went down in terms of liquid. It just shows the percentage that was sold in that as a percentage of the total market. So, the whole market was down in that one year, and we had more dry product that we sold on the market. I don't think it was an adoption thing; it did not go backwards in terms of farmer usage. In terms of area used, it did not go backwards.

### *Reduced number of 20-litre drums*

If we take the liquid products that we have put into our returnable drums, and the liquid products that we have actually made into dry products: I have put those together over the last five years, and this is the reduced number of 20-litre metal drums – which has been the normal standard for pesticides – that we as a company have replaced over that five-year period. In 1998 we had 341,000 less 20-litre containers out there, by replacing them with either refillable Envirodrums or dry products.

### *Reduced number of 20-litre drums due to dry products and refillables*

There is a significant saving to farmers as well. As I mentioned, from 1 February this year there has been this Drum Muster levy, which for farmers is 4c a litre or kilo of material that is not in a returnable drum. That means that for every 20-litre drum the farmer will have to pay as a levy. Obviously, for these containers, if they are dry products, or if they are in refillable containers, they do not have to pay that levy.

**The Hon. J. R. JOHNSON:** Where does the levy go to?

**Mr HOWAT:** The levy will actually go to a whole range of people. At the moment, a company has been set up through Avcare and through the participating people involved, like the National Farmers Federation. That money will be allocated to people like shire councils or individuals who set up and use that money, or can use that money, for disposable systems. They may be setting up things like drum crushers; or, if they are plastic containers, they might be setting up something that actually breaks up those drums. So the money from the levy is actually being allocated – or will be allocated, because it has not at the moment, because it has just started – to those people who apply for it, to be able to help dispose of the drums.

### *Information to farmers in NSW*

I have just two more overheads. These are some of the things that Nufarm as a company has done in terms of management and use of pesticides in New South Wales in this case, but also across Australia. This is the use of information and publications that we would put forward to farmers.

I have listed a number of publications. I have brought along a folder, which I am happy to provide to you. We have a thing here called “New Farmer”, which is a magazine which, in this case, has on the front of it, information about our Envirodrum

system. We also have a leaflet that tells them about transfer equipment that you can use. We have a spray diary, and we have a whole range of other things.

The important point that I want to make about this is that this is the sort of information now that farmers are asking companies or us to do. In the past they would have sought this information from government or semi-government groups. A lot of this information is now being provided by people such as our company.

### *Information to farmers in New South Wales*

On that list is "Volatility of herbicides". We have put out a publication on volatility of herbicides. We have put out a publication on "Dry formulations" and "Transfer equipment". I will provide that in this folder of information that I have here for presentation to the Committee. That is what we have done as a company in terms of management and use of pesticides. I will leave the presentation there and take questions.

**CHAIRMAN:** Did you want that documentation?

**The Hon. I. COHEN:** I would move that the Committee have tabled the Health Surveillance Program for Vineyard Workers 1994-95, a report from Wine Care, and also a report "Wine Care Health Surveillance Program for Vineyard Workers", funded by the New South Wales WorkCover Authority.

### **Documents tabled.**

**CHAIRMAN:** We will take a copy of those and return those to you. Going backwards: In the second-last overhead you referred to about 5,000 leaflets being mailed out. Who got those? How many farmers are there?

**Mr HOWAT:** In New South Wales we have, like everyone else, a farmer data base. We use the existing farmer data base for that. In the areas that we would look to put a lot of our products – which are mainly broken into two areas – we would have a cotton selective area of names, and the other would be cereal and sheep farming areas. We would target a total of something like 23,000 farmers in that area. We only put those out on request from farmers; they are not sent out to every farmer.

**The Hon. J. R. JOHNSON:** Why hide your light behind a bushel? It is not only farmers who are interested in your products; it is farmers' neighbours, and it is members of Parliament. If I could make a suggestion to you: What about inclusion in magazines like "The Farmer" or in rural press such as "The Land"?

**Mr HOWAT:** I would make two points about that. One is the list of things that we actually send out to farmers. The others are actually sent out to our sales staff. That information is then provided, on request, by them. That is one. I have brought along a copy of "Australian Grain" and we are very much involved in some of the articles. I have an article here about "Keeping sprays where they belong", which is very topical. When the people were writing that – Peter Hughes from the Queensland –

were actually involved in that. We provided information such as the volatility information that was there. Where possible, we try to get that sort of information in things like "Australian Grain" or that type of magazine.

**CHAIRMAN:** Is the Envirodrum only a Nufarm product?

**Mr HOWAT:** No, it is not.

**CHAIRMAN:** So others are using them as well?

**Mr HOWAT:** Yes. Nufarm was the first company to introduce their use. The Envirodrum is our name for it. We were the first company to use it, but it is nearly a generic drum. Certainly, the fittings on them are a generic fitting. It is called a micromatic fitting, made in the States. All people using those drums here in Australia, all the agriculture people, except for one company, as you would expect, are virtually all using the same fitting. So it is not like we are trying to get everyone trapped into our system. They can change it and use other people's drums as well.

**CHAIRMAN:** Is there any cost detriment to buying the chemical that way?

**Mr HOWAT:** There is no price difference. We actually have an \$80 deposit on that drum. Obviously, when we get the drum back, the farmer gets his \$80 back. Basically, the price of the chemical is the same whether they buy it in 20-litre drums or in the refillable drums. The advantage to the farmer at the moment is a slight financial one because of the exemption from the drum levy. But the real bonus to the farmer has been in the handling of the chemicals. Most of the surveys that have been conducted, where pesticides contamination has been a concern of farmers, has been the emptying of the drums into the spray tank, which is not an easy task to do. With this, they can actually do it from the ground. You just click the fitting in, and it pumps the chemical straight into the tank.

**CHAIRMAN:** What is the cost of the pump?

**Mr HOWAT:** The pump price can vary. We do not actually sell the pumps. We give advice on the pumps. The pumps range in price from anything from hand pumps that can be used, at basically \$250, up to a full diaphragm pump and motor of about \$1,800. In the initial stages of the introduction of the Envirodrums, Nufarm actually subsidises some people for the purchase of the pumps. But that has now stopped.

**CHAIRMAN:** Certainly, for the big users, it is a big jump forward. Obviously the small farmer would not be inclined to buy the 110-litre drums.

**Mr HOWAT:** Some smaller farmers would still take that much, but the dry products seems to be the area where the smaller farmers have taken them on. It is quite often easier to store, it is easier to manage, and quite often it is easier for them to manage where they do not have a liquid filling system, and they can use a hopper dry-

filling system. So we seem to see many of the smaller farmers actually going to the dry products.

**CHAIRMAN:** This morning we heard about the Drum Muster, and the group of about 30 councils in this area deciding not to participate in that because some of the people who sent the drums in did not triple-rinse them first. So the whole bunch were contaminated when they were treated together, and they were rejected. So those councils have pulled out of that program.

**Mr HOWAT:** That has been a major problem. You would remember that one of my slides was on the early campaigns of Avcare was do with this triple-rinse. It has been a major problem, where they have actually had to return drums to council tips and things, to get them fully clean. That is one of the difficulties, and it is an education matter. Now, it is going to start to become more of a financial burden to them. As it is now, farmers have been able to put them in places round their farms, in dams, and have been able to bury them or whatever. As that becomes more and more difficult for them, they are either going to go the way of either liquid or dry products, or they are going to have to start triple-rinsing them.

The other advantage that they have had is that most of the spray booms that farmers have now actually have attachments on them to allow them to do the triple-rinse. They actually put a spike in the drum and it pushes the chemical out and rinses the drum at the same time. They are now available and are sold when people buy a spray rig. That will make a significant difference. But it has been a major problem.

**The Hon. J. R. JOHNSON:** Mr Howat, is Nufarm an old company? If not, what are its antecedents?

**Mr HOWAT:** Nufarm was actually started in the mid-50s. It is a generic chemical company. It is an Australian company. We do not do research into new active molecules, or the synthesis of new molecules. We take products that are out of patent and we then sell them in Australia, and our development work is done on those products. Nufarm is now quite a large company. We had total sales last year of about \$1.1 billion.

**The Hon. J. R. JOHNSON:** You said that Nufarm is an Australian company. Is it Australian-owned?

**Mr HOWAT:** Australasian, could I say. At the moment, it is headquartered in Auckland New Zealand, but it is in the process of being transferred to Australia. I would suggest, without looking totally at the share portfolio, that 98 per cent of the shares would be owned by Australians.

**The Hon. J. R. JOHNSON:** Transferred to New South Wales, I hope.

**Mr HOWAT:** No, Melbourne.

**The Hon. J. R. JOHNSON:** Who is responsible for the freight to get your drums back to you – say, from the farm gate in to the agent, and from the agent to you – or do they go direct to you from the farmer?

**Mr HOWAT:** At the moment, what happens is that the farmer returns them to the agent, at which time he is credited back his \$80 deposit. It is Nufarm's cost; we have taken the cost to take from the agents back to our refilling sites. Initially, all the drums were filled either at our manufacturing site in Melbourne or in our manufacturing site in Kwinana in Western Australia. We have actually put in over the last two years a number of refilling stations. We have one in Moree and we have here in Dubbo, and we are about to open one in Wagga Wagga. You can imagine that one of the significant costs to us is the cost of returning the drum, if we had to bring it back to Melbourne each time. Now we only bring it back to Melbourne if it needs to be refurbished, in terms of fittings, or if it has been damaged and needs repair, or requires to be cleaned.

**The Hon. J. R. JOHNSON:** What is the percentage of returns where there is a deposit payable?

**Mr HOWAT:** It is basically 100 per cent.

**The Hon. J. R. JOHNSON:** You said that the drums are colour-coded.

**Mr HOWAT:** Correct.

**The Hon. J. R. JOHNSON:** I have read an article within the last few months about the colour-coding of certain drums. A person had written in, suggesting that the name also be on the drum – I think their suggestion was in white, irrespective of the colour of the drum, because of colour blindness. A person who sees red may be seeing it as brown.

**Mr HOWAT:** We have colour-coded the drums, but we have not changed the colour of the label because the label, as you know, is a registered legal document and we cannot change that. And we cannot change the colour of the writing on the labels, because that again is set, and you will find it either has to be white or black.

**The Hon. J. R. JOHNSON:** The label on the drum itself?

**Mr HOWAT:** Well, the label is wrapped around the drum, and it has to be either black or white. It cannot be coloured because of potential colour-blindness. But they are a fixed label on the drum.

**The Hon. J. R. JOHNSON:** What product do you get most complaints about?

**Mr HOWAT:** In terms of?

**The Hon. J. R. JOHNSON:** The people who live nextdoor to farmers who spray such and such.

**Mr HOWAT:** From that, we are the major supplier in Australia of phenoxy products, which are 2,4-D, MCPA, and those products. They would be the ones that, in terms of potential spray drift or damage, we would hear about most. In particular, there is a lot of concern about the use of those products anyway, and obviously there is legislation prohibiting the use of some of those products in particular areas at particular times. They also have an associated smell, and people are aware of that, and that is another complaint that we get. So, from our point of view, that would be the number one complaint.

**CHAIRMAN:** 240 ester.

**Mr HOWAT:** 240 ester is the best known, but that possibly works to its advantage a little bit: because it is well-known, and people know it is volatile; and people also know that it can be moved from spray drift. It seems to us, from what we see from farmer usage and from recommendations, that people are aware of that and are very conscious of it. Possibly, we would have more – I was going to say complaints – but probably like more inquiries on glyphosate, rather than 2,4-D, because people are not as aware of that.

In a sense it is a catch-22: people look at products such as 2,4-D ester and know it is volatile. Volatile movement means that if a pesticide lands somewhere, the product is naturally volatile and can move off and go somewhere else. They are conscious of using such a product. If you contrast that to where we actually have physical spray drift, which is somebody spraying and the droplets created during the spraying being moved by the wind, that can happen with every product. There is no distinction between products in terms of spray drift. But, if you are about to spray estercide, you are going to be very conscious of spray drift. If you are going to be spraying something like glyphosate, which you do not believe is as dangerous, you are maybe not as conscious of some of these environment effects. And it can drift. There is no difference in the spray drift between estercide as there is with glyphosate. So we quite often have concerns about glyphosate.

**The Hon. J. R. JOHNSON:** You made reference to the stench of something.

**Mr HOWAT:** There is a smell associated with estercide. There is virtually no smell associated with glyphosate.

**The Hon. J. R. JOHNSON:** If you take as a story Lever & Kitchen. Lever was working in a grocery shop and a woman came into him and said, "I'd better have a bar of that stinking soap." He started to put perfume with it, and that's how he made his millions.

**Mr HOWAT:** It works in two ways. I worked with a company before I started work with Nufarm, and we had an insecticide that had quite an offensive smell. No-one liked the smell, so we put a perfume in that. You don't think we got a lot of complaints from the farmers telling us how poorly it worked after that!

**The Hon. J. R. JOHNSON:** Do you keep statistics or look at health reports, if there are any, of people complaining or informing you of ill effects of any of your chemicals?

**Mr HOWAT:** I don't actually keep them. I am not an expert in that area.

**The Hon. J. R. JOHNSON:** Does the company keep them?

**Mr HOWAT:** The company has an expert in occupational health and safety in our company, and he keeps all the data on any information that we get, a telephone call or anything from our sales representatives on potential health problems. They are sent directly to him as the expert in that area. I do not have those figures.

**The Hon. J. R. JOHNSON:** Could you make that information available?

**Mr HOWAT:** I am sorry that I don't have them, but I am sure we could make those available, if you wish – how many incidents were reported to him. But they go directly to our occupational health and safety chap.

**The Hon. J. R. JOHNSON:** If we could have that on a confidential basis, that would help.

**Mr HOWAT:** Certainly. I will provide that.

**The Hon. J. R. JOHNSON:** It is up to you whether it is to be confidential.

**Mr HOWAT:** Thank you.

**The Hon. I. COHEN:** Mr Howat, has your company been involved in any studies to determine the cost and potential for application of pesticides without aerial spraying?

**Mr HOWAT:** Not directly, no. We have looked at a number of instances where aerial application has been a concern. One of those is the application to rice in southern New South Wales. We have spent a reasonable amount of time trying to look at some substitutes, product-wise, for the existing products. One of the main ones that concerns is a product called sodium MCPA, which we sell and is applied to rice. We looked at what we could in terms of making that product into a dry product, into a granule, and then broadcasting that; or putting it on by ground application. But I don't believe we have been directly involved in such studies, no.

**The Hon. I. COHEN:** What is your or your company's view on the reported medical condition of multiple chemical sensitivity?

**Mr HOWAT:** I would have to give a personal view because, as I said, I am here on behalf of the company. I am sure there are cases of that. We certainly know that there are different sensitivities to many of the pesticides that we use. We see that both in our own staff and also in people at our manufacturing site. It is difficult to

extrapolate from that and know whether the multiple sensitivities are as prevalent or as present in the community. But I certainly have no problem with accepting that there are differences in people's sensitivities to a lot of these products, as there is for just about everything else.

**The Hon. I. COHEN:** Do you have occupational health and safety records of that sort of thing that you could make available?

**Mr HOWAT:** We certainly do in the plant. We have a manufacturing site, as I mentioned before, in Melbourne and in Kwinana. All employees within Nufarm have annual medical tests and undergo blood sampling every year. Our staff at our manufacturing sites have three-monthly medical and blood samplings, at their own request, if they wish, and there is information kept on their sensitivity to these products, yes. Again, I could see if that information is available. I should be able to find that.

**The Hon. I. COHEN:** Multiple chemical sensitivity, and any impacts such as chronic syndrome, is of relevance in relation to your workers. If you have any information on that, that would be very valuable to the Committee.

**The Hon. J. R. JOHNSON:** Would that have been made available to the unions covering your workers on the site?

**Mr HOWAT:** It is made available to the individual personnel at the Melbourne site.

**The Hon. J. R. JOHNSON:** My question was about making it available to the union.

**Mr HOWAT:** I do not believe there are any union members on our site.

**The Hon. J. R. JOHNSON:** How many people work there?

**Mr HOWAT:** The information is made available to the individual workers.

**The Hon. J. R. JOHNSON:** How many people work there?

**Mr HOWAT:** There are about 400.

**The Hon. J. R. JOHNSON:** And no unions?

**Mr HOWAT:** No. The plant works 365 days a year. I don't think there has been a day missed through a strike there.

**The Hon. J. R. JOHNSON:** There are numerous places like that that are fully unionised where there are no strikes. There are about four million workers went to work today, and there may be 200 on strike. Unionism does not imply strike.

**Mr HOWAT:** No, that is right.

**The Hon. I. COHEN:** Does your company manufacture, import or have anything to do with any alternative pesticides, such as pyrethrum and niem?

**Mr HOWAT:** We have sold BT products. We have looked at niem a number of times. The major ones that I have been involved with have been used in trials in cotton and in tea tree, and we have had some trials in some vegetables. We have never been able, in those trials, to get sufficient control from the product such that we would want to continue development.

**The Hon. I. COHEN:** For the purpose of licensing all users of pesticides, what is your view on the registering of chemical users at the point of sale?

**Mr HOWAT:** Certainly, for schedule 7 poisons, I believe it is something that we should do, and we do do now. For the remainder of the products, I don't believe so. I think, with the courses that we have, both in the accreditation for resellers and for the farm care course, I don't believe we need to go further than that in terms of registration for every usage.

**The Hon. I. COHEN:** You do not believe there is any other area of licensing and training and education that should be introduced?

**Mr HOWAT:** It is going to be a continual process in terms of training, in terms of a new situation that comes along, and in terms of application of the product, as well as new uses. Where we have specialised uses, I have no problem with adequate and specialist training in those areas.

**The Hon. I. COHEN:** Would the proposal outlined in the Environment Protection Authority's discussion paper have a financial impact on the viability of your organisation?

**Mr HOWAT:** Very minor actually.

**The Hon. I. COHEN:** Very minor?

**Mr HOWAT:** Yes.

**The Hon. I. COHEN:** Given your views on education on the product and associated advertising within the industry, do you see that your company would have any responsibility in terms of misuse of pesticides in the community, and chemical trespass, in terms of the application of your products?

**Mr HOWAT:** I think we have recognised that application of our products is one area where---

**The Hon. I. COHEN:** It is a bit like being a gun salesman, isn't it?

**Mr HOWAT:** I think you need to make people very much aware of application. Application is one area where there has not been a lot of direct information supplied to the users of the product. We would like to see that change a little bit. It is an area in which there has not been a lot of development of expertise in application. A lot of farmers who have grown up with application, but who have not, in a sense, been adequately trained in it, may not be as familiar as we would like with the total theory of what is actually occurring when they are applying a pesticide. I think there is a lot of training that should go on, and I would certainly like to see that.

**The Hon. I. COHEN:** There is a bit of a contradiction, I suppose, in that you are trying to sell as much pesticide as you can, in terms of promoting your business. How does that sit with appropriate education on the dangers of pesticides?

**Mr HOWAT:** I think it sits very well, actually. I think the better that people apply our pesticides, the better they will get those pesticides to work, and the more likely they are to come back and use them again. The difficulty is in someone using them inappropriately and they don't do the job properly. That seems to be where we get into trouble. I would think that the more they understand about the application of our products, the better they would use them and, I would hope, decide to use them again.

**The Hon. I. COHEN:** From your company's point of view, do you see any changes in the Pesticides Act that would make things more fair and equitable, particularly for people who are victims of pesticide trespass, to clean up the industry so that your selling should perhaps be conscience-free?

**Mr HOWAT:** We would like to think that everybody uses our pesticides, and everybody else's pesticides, uses them appropriately, and uses them as per the label in every way.

**The Hon. I. COHEN:** Do you really believe that?

**Mr HOWAT:** I said we would like to think. We would like the people who, in some cases, use them inappropriately to be seen as the pariahs and as the people we do not want to supply our chemical to. We already do that in terms of our supply of chemical to resellers who are not accredited. Maybe that can be a case where we as an industry will have the teeth to say, "We don't supply to this or that person if they are people who are not going to use them appropriately."

**The Hon. I. COHEN:** Is there any mechanism available to you to do that?

**Mr HOWAT:** There is no mechanism not to supply to those people. There is a mechanism not to supply them to resellers who are not accredited. That mechanism is already available to us, and it can be used. Very often, those two things go together. If a reseller has not got the accreditation and has not got the staff, that is where you will usually have a problem. I am fully aware of this, because one of my tasks at Nufarm is to look after where we do have complaints about the efficacy of our products or

inappropriate use. It is more likely to come through one of those sources than from a more reputable source.

**The Hon. I. COHEN:** What sorts of complaints do you get?

**Mr HOWAT:** Mostly, the complaints we get are ----

**The Hon. I. COHEN:** And from whom?

**Mr HOWAT:** They would come through from farmers, who would either go through our sales representative, or back through where they actually purchased the product. It would be a concern about the efficacy of the product. They would be 90/10 on the complaint side: they would be 90 efficacy and 10 per cent that there was some damage to their crop.

**The Hon. I. COHEN:** As well as damage to crop, do you get complaints about damage to persons?

**Mr HOWAT:** I cannot recollect that I have had one dealing with a person. As I mentioned before, if it is a health and safety matter, it is directed to another person in our company. My responsibility is to look at the performance of the product, and I respond to those complaints.

**CHAIRMAN:** You would mainly get a complaint from somebody if they sprayed a crop – whether they had read the label or not – and it killed something that they did not intend to kill, would you not?

**Mr HOWAT:** No. As I said, the most likely cases are where it did not control the pest, or it did not work as well as they had wished or had expected.

**CHAIRMAN:** So you are not getting the sort of complaint that the Hon. Ian Cohen is talking about; where it had something to do with a neighbour? They would not come near you, would they?

**Mr HOWAT:** No, not normally. The only time that I have become involved – and it is more as a third party – is where one of our products was used inappropriately, and they might contact us to say, “What is your expertise? How much damage will occur? What will be the effect of this damage?” That relates to an understanding of the product. That is my expertise in the company.

**The Hon. J. R. JOHNSON:** Do you have protocols in place for people at say Walcha who have a lot of agriculture chemicals, and he goes on holidays, and where the fellow who takes over from him may not know that this is what he should do. Would the information be made available to him by a farmer?

**Mr HOWAT:** We certainly have in place a complaint procedure. We have product that we would divide into a couple of areas. One is a product performance inquiry, which would be something that may be directed to us from that person. In the

normal case, it would go to our regional sales representative. If he felt he did not have the knowledge there to try to explain what happened, it would then come to myself. So there is performance on product, and there is a separate area that looks at complaints – which may ultimately be that the product did not work as well as they wished, or that it may have damaged a crop in some way. There is a set procedure that we have in the company, yes.

**The Hon. J. R. JOHNSON:** As a result of complaints, have you ever withdrawn product from the market?

**Mr HOWAT:** We have had an instance where, through complaints, it was determined that there was some contamination within a batch of product, and we withdrew that product. But, in the normal case, no.

**The Hon. J. R. JOHNSON:** Was that a total withdrawal?

**Mr HOWAT:** Of that batch of that product that was put out, yes.

**The Hon. I. COHEN:** Have there been any cases of your chemicals having an effect beyond expectation, both to humans or the environment, where you have had to withdraw them?

**Mr HOWAT:** No.

**The Hon. I. COHEN:** What is your company's view on genetically-engineered products? Is this having an impact, or are you looking at a future market there for expansion?

**Mr HOWAT:** It has not had an impact on us per se at the moment, in terms of products in Australia, but I am sure you are fully aware that there is only one genetically-modified crop that is on the market here, and that is BT cotton. That has not had an effect on us as a company. That is an insecticide used in cotton, and it is not an area in which we sell a lot of products.

**The Hon. I. COHEN:** What is your relationship with Monsanto?

**Mr HOWAT:** We have a relationship with Monsanto in terms of the purchase of glyphosate material. We do not have any relationship ----

**The Hon. I. COHEN:** Are you an agent for Monsanto in Australia?

**Mr HOWAT:** No, we are not. We have instances where we ----. We sell glyphosate here in Australia. Monsanto's product is Roundup. It is off patents here in Australia, as you would be aware, and it has been for a number of years. Nufarm sells it here. We have actually manufactured some of the glyphosate itself; we have bought it from other sources from overseas; and we have occasionally bought glyphosate acid from Monsanto which we would then aminate and then sell. So we have a commercial relationship in that we buy some product from them.

**The Hon. I. COHEN:** Are you aware of the fair degree of controversy about surfactants in Roundup or glyphosate?

**Mr HOWAT:** Yes.

**The Hon. I. COHEN:** And the claim that there is a new edition of glyphosate in which the surfactant has been improved?

**Mr HOWAT:** Yes.

**The Hon. I. COHEN:** There is debate about that as well. Can you explain that? If I might add: I think there is a fair degree of concern about its environmentally safe usage. Has it been withdrawn from the American market?

**Mr HOWAT:** No. The glyphosate is a product that is water soluble. To work effectively, it has to be taken up in the plant. Because of that, when you actually buy glyphosate nearly 13 per cent of the product that you buy is actually surfactant, because the product, when it lands on the surface of the plant, has to spread out on the plant so that it can be physically taken up in through the plant leaf. So there is a high proportion of surfactant in glyphosate.

The basic surfactant used in glyphosate is a product called ethoxylated tallow amine. That is in there for the reason that it needs to be taken up by the plant. At certain concentrations, that glyphosate becomes toxic to fish and to tadpoles because the surfactant actually gets on the gills of those fish. At certain concentrations, when glyphosate is applied with very low levels of water, if you have tadpoles in there you will get a death of some of those tadpoles – through the physical presence of that component of the product.

That was identified a number of years ago by the Environment Protection Authority in Western Australia. It only really happens when you have a very low concentration of water: when you apply glyphosate to standing water which is at a low level, and therefore you have a high concentration of surfactant.

At that time Monsanto actually came out with another surfactant in its glyphosate which was less toxic to these aquatic organism, basically to frogs and to tadpoles. We as a company looked round and also came up with a surfactant that was less toxic to frogs at that time. We put that product on the market. Instead of our product being called glyphosate it is called Weedmaster 360, and it has registrations for use in aquatic areas, as does the Monsanto product.

Before that, glyphosate was registered for use in products that have aquatic uses. They were taken off that label. So now you have Roundup, or, as well sell it, glyphosate that does not have aquatic use registrations. You have specialist formulations of glyphosate. As I said, ours is called Weedmaster; Monsanto's is called Biactive. But they are different and have been registered by the National Registration Authority to be used in these aquatic situations.

**The Hon. I. COHEN:** Are you personally concerned with the higher resistance levels that develop as a natural usage of products of your company?

**Mr HOWAT:** Of our product, yes; and, of the industry, yes. As I mentioned in my introduction, Avcare has three committees that actually look at resistance to herbicides, insecticides and fungicides. I have been on that herbicide resistance committee since its inception in 1986, which was the first one in the world to do that. I was chairman of that committee for eight years. I have been involved for many years in resistance issues. I have been, and I am now, concerned about the evolution/development of resistance with all those products. That is one of the reasons that the chemical companies have put a lot of effort into integrated pest management, whether that be in weeds or in fungicides. One of those is to slow down or, if possible, stop completely its development of resistance to products.

**The Hon. I. COHEN:** How are you doing that?

**Mr HOWAT:** By the use of integrated pest management, where we could actually get away from farmers applying, year in and year out, one or more types of insecticides or fungicides. If you have a population of whatever it is – weed, insects or fungi – and you continually use the same product for the control of that pest, you eventually will select for resistance. That is well known. We have to make sure that does not happen. To do that, we must rotate chemicals; we rotate crops; we rotate everything that we can to take away that selection pressure, to lower that possibility of selecting for resistance.

**The Hon. I. COHEN:** Is that working?

**Mr HOWAT:** It certainly is. I don't think that we would have been able to continue our use of insecticide control in a number of areas – and cotton is one. We have had very good control of fungi in our top fruit because of our use of the integrated pest management system. Unless those measures were put in place, I think that would have been very difficult to near impossible.

**CHAIRMAN:** We have some questions that we will ask you to take on notice. What we will do is get you a copy of the transcript of today's hearing, and the questions will be in it. Would you take those on notice and furnish us with your response to them?

**Mr HOWAT:** Yes.

**CHAIRMAN:** That is, if you have not already covered those questions in your answers already. But there is one final question. I do not think your company produces endosulfan for cotton?

**Mr HOWAT:** We do sell endosulfan in the cotton industry, yes. We do not manufacture it, but we do sell it.

**CHAIRMAN:** One of our witnesses today suggested that one solution would be to ban the sale of endosulfan. Can you comment on that? In particular, are there other alternatives that are viable? Or is that too simplistic?

**The Hon. J. R. JOHNSON:** You can take it on notice.

**Mr HOWAT:** No, I think it is worth answering. I would not like to see endosulfan banned from use in cotton. I believe it is still a required product for use in cotton. You could make a case that we could substitute a number of products where endosulfan is being used in cotton sprays at the moment. The trouble with that is that it would put too much pressure on some of those chemicals that we would actually put in as replacements. So I certainly would not like to see endosulfan banned.

**CHAIRMAN:** Are they more expensive?

**Mr HOWAT:** Yes, more expensive. Then we would start to bring up some other problems in terms of the usage of those products in cotton – not just expense, no.

**CHAIRMAN:** In terms of resistance?

**Mr HOWAT:** Yes, in terms of resistance.

**CHAIRMAN:** In four years, there has been resistance.

**Mr HOWAT:** There are high levels of resistance to endosulfan already in cotton, and it has been there for many years. I was saying before that just about all the products that we have got in cotton at the moment, except for the ones that have been introduced in the last couple of years, we have quite high levels of resistance. Because of the strategy that we have in cotton, we have been able to continue the use of those products. Taking endosulfan out would just make it that much more difficult.

**The Hon. I. COHEN:** Do any or all of your products bioaccumulate? If no, what sort of testing have you been able to do in terms of bioaccumulation in the environment and in species?

**Mr HOWAT:** Bioaccumulation has not been a standard test in terms of products and products for registration here in Australia, but it is coming into place now.

**The Hon. I. COHEN:** At a Federal or State level?

**Mr HOWAT:** At a registration level. We have done a lot of work. With our major products that we manufacture, which I mentioned before – the phenoxy products 2,4-D and MCPA – we have actually looked into that and done work overseas to try and look at that. We have found that that is not the case. Those are the only products that we have done in our own right.

**The Hon. I. COHEN:** You are saying there is no bioaccumulation with those products?

**Mr HOWAT:** Of those products, correct.

**The Hon. I. COHEN:** What proof do you have of that?

**Mr HOWAT:** From the work that we have conducted in the United States. Those products actually came up for re-registration in the United States, and to do that we had to actually provide that sort of information.

**CHAIRMAN:** What about the overheads?

**Mr HOWAT:** I will provide copies of those and whatever else.

**CHAIRMAN:** That would be great. These are the questions that I would like you to take on notice:

1. Can you identify any areas of pesticide legislation and policy at Commonwealth, State or local government level that should be addressed to minimise the impact of pesticide use in New South Wales?
2. Are there any improvements that could be introduced in the area of labelling of pesticides and disposing of pesticide containers that may minimise damage to persons, property or the environment?
3. What is your view as to the appropriateness of allowing pesticides to be applied at lower than recommended dosage rates?
4. What is your view on the adequacy of weather stations and forecasting data in providing data for pesticide applicators?

(The witness withdrew)

(The Committee adjourned)