

REPORT OF PROCEEDINGS BEFORE

STANDING COMMITTEE ON STATE DEVELOPMENT

INQUIRY INTO THE USE AND MANAGEMENT

OF PESTICIDES IN NEW SOUTH WALES

At Gunnedah on Tuesday 27 July 1999

The Committee met at 10.00 a.m.

PRESENT

The Hon. A. B. Kelly (Chairman)

The Hon. I. Cohen
The Hon. J. R. Johnson
The Hon. I. M. Macdonald

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. I. Cohen 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.

VICKI ANN DOUBLEDAY, Secretary, Gunnedah Environment Group, of Mulwalla, Gunnedah, and

LEONARD JIM SANDERS, Farmer, of P.O. Box 466, "Gooriabh", Gunnedah, sworn and examined:

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

Ms DOUBLEDAY: As Secretary of the Gunnedah Environment Group.

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

Ms DOUBLEDAY: Yes, I did.

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

Ms DOUBLEDAY: Yes, I am.

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

Mr SANDERS: As a committee member of the Gunnedah Environment Group.

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

Mr SANDERS: Yes, I did.

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

Mr SANDERS: 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. However, I must warn you that the Parliament has the right to overturn the Committee's decision and make your evidence public.

Ms DOUBLEDAY: The Gunnedah Environment Group, whose membership consists of landholders, traditional mixed farming families, farm workers and townfolk, continues to advocate for the reduction of pesticide usage in the Gunnedah area. We are concerned about chronic low-dose exposure to chemicals.

We understand that sustainability is defined by the World Commission on Environment and Development and that the principles of sustainable development include intergenerational equity, conservation of biodiversity and ecological integrity, an anticipatory and precautionary policy approach, and social equity issues.

Many of our groups and members have had first-hand, albeit negative, experience with the social and equity principle of sustainable development that is occurring here in this area. That is seen by the Helix and the endosulfan debate. We are concerned that the Governments are failing in their duty of care to provide basic civil rights of clean air and water.

We have lost our right of choice, basically. We are concerned that there is no commitment to accountability for a number of stakeholders on this issue by a lack of strong legislation and an outdated Pesticides Act that is 20 years old, adding further fuel to the fire.

We believe that governments are either fundamentally concerned with economic rationalism and that the issues that are referred to in this inquiry that face this many communities are often outside this framework. We have to question industry's ability to self-regulate. If best management practices were occurring and were successful, would pesticides be showing up in our cattle, our rivers, our settlements and our water samples. I have evidence to present and to table to this Committee on those matters. The fundamental issue is that pesticides do not acknowledge boundaries, even if they are best management boundaries. That is a very short summary of our concerns.

CHAIRMAN: Would you like to formally table the documents?

Ms DOUBLEDAY: I would like to table this, and I would like to table evidence that was prepared by our committee to your Committee.

Documents tabled.

CHAIRMAN: Len, would you like to make an opening statement?

Mr SANDERS: Basically, what Vicki has put in that short formulation of the presentation contained the main concerns of the group and those who live in this valley.

CHAIRMAN: You mentioned, Vicki, that you would like to enlarge on a point.

Ms DOUBLEDAY: I would prefer if you asked questions and I could answer those. There is documented evidence of blood samples, sediment samples and rainwater tank samples in this evidence.

The Hon. I. COHEN: Ms Doubleday, I understand your submissions. Could you describe to the Committee some of the examples that you have about pesticide levels in humans, the proximity of spray drift and possible chemical trespass, and also any pesticide levels found in rainwater tanks and containers, and give an explanation of the proximity of spraying and your assessment of the problem?

Ms DOUBLEDAY: Firstly, there was a blood sample given to us by a farmer who runs beef on his farm. He lives approximately a kilometre downwind of a cotton farm. This occurred in 1996. He had a blood sample. He was quite ill. That blood sample actually shows a number of pesticides in his blood. What concerned him the most is that he has never used endosulfan on his property, and endosulfan is showing up in his blood. He is very concerned about that.

There is a billabong sample of the Bluevale Lagoon that actually shows endosulfan 1 and endosulfan 2 and endosulfate, which is actually the breakdown product of endosulfan. It is increasing as it breaks down. Endosulfan is actually bioaccumulative, and it increases as it breaks down. It is an organochlorin.

There are further examples. One of our members was quite ill over a twelve-month period. The table drain at the front of her house has been documented now to have a number of pesticides in it. That information is tabled there too. It took her a long time to get people to acknowledge that she was ill. The results here are a concern to the Gunnedah Council, as documented in the letter. She was taken to hospital on a couple of occasions due to her illness.

The Hon. I. COHEN: Did she use endosulfan on her own property?

Ms DOUBLEDAY: Absolutely not.

The Hon. I. COHEN: What was her proximity to the nearest users of endosulfan?

Ms DOUBLEDAY: Her building is actually within the same block of an agricultural depot and a shire council depot. So, we are concluding that there is runoff or something from that area.

The Hon. I. COHEN: Do you have information regarding pollution, water quality, effects on fish stocks and on other water-dependent animals and birds?

Ms DOUBLEDAY: Certainly.

The Hon. I. COHEN: You might have that in your written submission. Could you give a brief assessment on that?

Ms DOUBLEDAY: With the billabong, it is quite evident that it is in the billabong system, and that has to have some effect. I have got a clipping from the Northern Daily Leader, nearly 12 months to the day, showing that endosulfan and other chemicals have been found in the northern river system. They are quite concerned that the endosulfan is actually in the river system, and about the amount that we presume is being used in the area. The topography of this area means that when pesticides are used, they tend to circulate in the valley. It is in our trees, it is in our rivers, and it is in our water tanks.

The Hon. J. R. JOHNSON: Is there evidence for that?

Ms DOUBLEDAY: Yes, we have that evidence. It is tabled in my evidence.

CHAIRMAN: You have a newspaper article there entitled "Minister in a spin over cotton pesticide war". That newspaper quotes a couple of things, but one is that:

Gunnedah Council recently closed its aerial spraying facility.

We might ask the Gunnedah Shire Council about that matter. The other item in that article states:

A chemist, Mr Peter Dennis, saying he had observed a significant but unquantified increase in demand for medications for allergies and respiratory complaints and calling for an expert survey of Gunnedah health practitioners.

Has that survey been done?

Ms DOUBLEDAY: Not to my knowledge.

The Hon. I. COHEN: Can you give the Committee any information on, as I understand it, a class action being undertaken about the use of endosulfan?

Ms DOUBLEDAY: I will ask Len to answer that because he has been involved in the class action.

Mr SANDERS: At this stage there have been no results come from that class action. I understand that at the end of this year it will be before the courts. But, at this stage, it is in its infancy.

Ms DOUBLEDAY: That is to do with endosulfan, I believe. Are you talking about Helix too?

Mr SANDERS: Yes, that is to do with endosulfan. The Helix program is up and on its way, and the majority of it has been concluded. But the endosulfan class action is in its infancy.

The Hon. I. COHEN: I will address this question to either of you: Would you support the use of chemicals if there was a ban on aerial spraying and other application methods were applied?

Ms DOUBLEDAY: In today's society we are so dependent on chemicals. We cannot say, "No, no chemicals." We are not against chemicals. We are for pesticide reduction. If that is taking aeroplanes out of the air, yes.

The Hon. I. COHEN: Given the genetic engineering used on some of the cotton crops now, do you have any concerns that the industry is moving to genetically-modified crops and the unknown side-effects and its potential to affect water supply, and how that may affect human and animal health? Have you looked into that matter?

Ms DOUBLEDAY: I think the science has to be treated with caution. I am of the understanding that there is a race against time, that we are only just ahead of the bug. I have spoken to a few farmers who believe that their spraying has definitely dropped a small amount. But they still have to spray. The implications of that are a concern. I mean, Rachel Carsons 30 years ago spoke about the DDT, and 30 years on we are still arguing about the implications of the spraying of pesticides around in our environment.

The Hon. I. COHEN: Could you identify the major areas of pesticides legislation and policy that need to be addressed to minimise the impact of pesticide use?

Ms DOUBLEDAY: Firstly, we have to have stronger legislation. Len might like to speak more about that.

Mr SANDERS: In the Pesticides Act, as I understand it, there are two words "wilful intent". To prove wilful intent of chemical drift and chemical trespass and the destruction of both human and environmental health is nigh on impossible.

The Hon. I. COHEN: So the deletion of the "wilful" would satisfy many of your concerns?

Ms DOUBLEDAY: Definitely.

Mr SANDERS: It would certainly open up the system for litigation, and litigation is the only thing that is going to create a balance in this argument.

Ms DOUBLEDAY: Our Pesticides Act is 20 years old. It is totally outdated. Our communities are demanding a stronger Pesticides Act.

The Hon. J. R. JOHNSON: The purpose of this Committee is to update that Act.

Ms DOUBLEDAY: That is right.

The Hon. I. COHEN: In terms of problems under the Act, could you as local property owners and so on describe your relationship with people in the cotton industry and reactions to concerns about aerial spraying near your properties and issues of chemical trespass?

Mr SANDERS: There is no relationship whatsoever now. It is open warfare out there. It has now continued for many many years. In my case, it is in its twelfth year. Initially, back in December of 1989 I sent water samples to the analytical authorities in Melbourne. Even in those days they came back positive with synthetic pyrethroids and organophosphates. The concern was in place, and has simply deteriorated and degenerated, in both human and environmental health, since that time.

The Hon. I. COHEN: Has the industry in any way adjusted its practices in your immediate area through consultation or communication on the issue of pesticide trespass?

Mr SANDERS: In my immediate area, absolutely not. There has been little to no communication whatsoever. Basically, that's it.

Ms DOUBLEDAY: Industry talks about best management practices. We have to acknowledge that things have definitely got better over the last five years, but pesticides do not acknowledge boundaries. It is as simple as that. Everyone can be as careful as possible, but pesticides are drifting. That is the fact. That is in my evidence. Best management practices are not validated, they are not independently monitored or assessed. We are concerned that best management practices are internally monitored and assessed. There is no validation of best management practices.

The Hon. I. COHEN: Would you have a preferred option in terms of regulation and how to deal with best management practices?

Ms DOUBLEDAY: I think government must have some hand in that. I mean, you can say you are doing the right thing, but at least someone from outside comes in and has an audit. Can you imagine someone auditing your books and you saying, "I'm fine"? It is commonsense that we need someone from the outside or from government to come in and audit their best management practices.

The Hon. I. COHEN: As to the effect of chemicals on people in the community, could you comment on the availability of information, and assessment of the health of the community, particularly children? Is there adequate assessment, and what role does the government play there?

Ms DOUBLEDAY: I think the government is not playing any role in it. We have people who ring us who are at the end of their tether: they are sick, they have got

headaches, they are dizzy. Barbara Smith is a classic example. She goes to the doctor, and the doctor will document that it is vomiting or headache, and that is all. There is no connection of the illness symptoms to the causes. The causes are never recorded. It is difficult for someone to state that.

I had a dear friend who was 57 years old. This friend lived in close proximity to a cotton farm. She had to drink the water in her rainwater tank, and she died at 57 of thyroid cancer. The cause or causes of her illness will never be known. It is documented that she died of thyroid cancer. One has to question, in the context, the cause of her death.

The Hon. J. R. JOHNSON: Do you keep records of all of these people who ring you up with these complaints?

Ms DOUBLEDAY: Do they keep records?

The Hon. J. R. JOHNSON: No. Do you keep records?

Ms DOUBLEDAY: We have not got a lot of records.

The Hon. J. R. JOHNSON: You have stated that a lot of people ring you up with complaints. Do you keep records of those complaints?

Ms DOUBLEDAY: No.

Mr SANDERS: Generally speaking, those complaints are referred back to the person making the complaint, to either contact the Environment Protection Authority or seek medical treatment. Might I point out the directions given by, certainly, the local general practitioners here. I have had three of them tell me to get out of town. One of those doctors has since moved because of the ill effects of pesticides on his wife. Having moved out of the district, his wife's health has improved immensely. Plus the fact that prescription drugs for asthma, allergies and a couple of other complaints have significantly diminished since moving out of this area.

Might I refer to a previous question of the Hon. Ian Cohen about chemical drift and so forth? A major concern of chemical drift is volatisation of chemicals. That is something which is pertinent to chemicals and something that cannot be controlled.

The Hon. I. M. MACDONALD: You state in your submissions that levels of endosulfan have been found in various areas across the region. I have just been reading from a document that is pretty interesting in terms of the potential effects of studies on high dosages on mice. What is your realistic solution? For instance, you have stated that you see fewer planes in the skies or what have you as being a solution to some of these problems. How would you see that working in practice, and how would you keep a viable cotton industry going here, if there was a radical alteration of the scheme of chemical usage and aerial spraying in that situation? What I am getting at is: What sorts of controls and mechanisms for chemical reduction will not necessarily wipe out the cotton industry in the Namoi Valley?

Ms DOUBLEDAY: I think ground rigs, because the chemical is applied closer to the plant, does not have the same effect. It is a fair drop for chemicals to come down from an aeroplane.

The Hon. I. M. MACDONALD: So ground rigs is one alternative.

Ms DOUBLEDAY: And, even if there has to be aerial application, the droplet size has to be larger. I don't know what else we can do. It is just that our committee is concerned with aerial application because of the topography of the area. That is our major concern. I would have to acknowledge that a lot of the area is black soil, and that that could make it quite difficult. But I don't know what else to do. Basically, you will have to weigh up a cotton industry and a community's health.

Mr SANDERS: If I could expand on that? It is up to governments to make the decision – and I believe it is a political decision – to create an irrigation industry in this valley, based on known water reserves. The fact that cotton is a large user of chemicals and water – the two main impacts upon this district at this point of time – makes us begin to recognise the water problem that the pesticide issue continues to pose. It is now, I believe, up to governments. Do they want a farming mono-agricultural system here, a farming ghetto, at the expense of conservative farming and communities, because chemicals do play a major part in both environmental destruction and human health.

The Hon. I. M. MACDONALD: So your organisation would want a limiting, in effect, of the cotton industry?

Ms DOUBLEDAY: Yes.

Mr SANDERS: Well, two things. I have lived here all of my life, but in the last 10 or 12 years there has been immense destruction of the environment and human health. Yes, we have used chemicals in previous years, but there is a build-up of chemical overload in this valley and there is a volatisation of chemicals, with a settling in the evenings. My wife's very worst health effects were in the morning hours, when you get the settling effect in the valley floor. In this valley, you have all sorts of environment problems, such as katabatic winds and so forth, which add to the problem.

The Hon. I. M. MACDONALD: I am trying to get a handle on exactly what you are proposing, other than some limitations. In terms of a house study, I am not really convinced about this thyroid issue. I know that Balla Bartock died of cancer 70 years ago, before these chemicals became widely used. Has there been an overall study that shows that any impact of a negative nature?

Ms DOUBLEDAY: There was a report on the health impacts of pesticide-affected persons in the Gunnedah community, done by the Australian Agricultural Health Unit. Sixty-three people took part in that study. Twenty-two per cent of those surveyed had problems probably related to pesticides in the area. That is the report there.

The Hon. I. M. MACDONALD: How was the survey designed?

Ms DOUBLEDAY: I am not sure.

The Hon. I. M. MACDONALD: Is it in your submission?

Ms DOUBLEDAY: No, it is not. But the Australian Agricultural Health Unit would have that. We were given an undertaking that the blood samples and urine samples would be kept, that we would have an independent gentleman from America come and have a look at those samples. Apparently, they were lost and the study was inconclusive. We were really concerned about that issue.

The Hon. I. M. MACDONALD: Following a question put by the Hon. Ian Cohen which was somewhat outside our terms of reference: In relation to Ingard cotton, allegedly that has shown a significant reduction in chemical usage. So would you support more usage of Ingard cotton to try to cut back on chemical usage?

Mr SANDERS: Those are the two main areas of concern: (a) the method of application of chemicals initially, and (b) a reduction of chemical use in this valley.

The Hon. I. M. MACDONALD: So would you support an extension of the use of Ingard cotton to reduce that chemical use?

Mr SANDERS: I would support any means to reduce chemical usage.

The Hon. J. R. JOHNSON: How many active members are there in your group?

Ms DOUBLEDAY: When this came to a head, there were over 300 members in our group.

The Hon. J. R. JOHNSON: How many do you have now?

Ms DOUBLEDAY: Do you mean financial and active members?

The Hon. J. R. JOHNSON: It was clear and concise English. How many?

Ms DOUBLEDAY: Thirty.

The Hon. J. R. JOHNSON: You know of no health surveys undertaken by the local Area Health Service or some collation of information of the various doctors and the hospital in relation to what may be as a result of pesticides in the area?

Ms DOUBLEDAY: Not that I am aware of.

The Hon. J. R. JOHNSON: Have you made any inquiries?

Ms DOUBLEDAY: No, we have not. When people contact us, we ask them to contact the Department of Health in Tamworth and register their complaints with the department, so that they can actually document that, and so that that can be looked at over a period of five years. We were told by the Department of Health that there is nothing that they can do for us; that the only thing that they can do for us is document the complaints.

The Hon. J. R. JOHNSON: Do you know if that documentation is taking place?

Ms DOUBLEDAY: As far as I know, yes.

The Hon. J. R. JOHNSON: On what do you base that “as far as I know” on?

Ms DOUBLEDAY: I was speaking to a gentleman from the Department of Health a while ago.

The Hon. I. COHEN: Could you expand on the comments that you made in your submission regarding your opposition to any transfer of powers relating to the use of pesticides in local government?

Ms DOUBLEDAY: I think what we need is the State Government to handle that. I have grave reservations about local government.

The Hon. I. COHEN: Why is that? Do you have experiences here with local government in this area by which you believe that local government has not acted in the interests of the community on this issue?

Mr SANDERS: I can only express an opinion there. I have been to our local shire manager, and he has said that if I have a problem with pesticides I should look towards moving out.

Ms DOUBLEDAY: It is too close to the bone, I think, with local government.

CHAIRMAN: Was that your current general manager?

Mr SANDERS: That is our current general manager, Mr Max Kershaw.

CHAIRMAN: Following on from the question asked by the Hon. Ian Cohen: If, for example, the Government asked the local government health inspectors to assist the Environment Protection Authority inspectors in the inspection process, would you still have any objection to that? I realise there are not many Environment Protection Authority inspectors around. The trouble that we had put to the Committee yesterday was that, if there is a complaint at the bottom end of the Lachlan and the inspector heads off from Dubbo and gets halfway to the Lachlan and then he gets a complaint from Warren, he cannot possibly get there in the same day.

Ms DOUBLEDAY: That is right.

CHAIRMAN: So, would you still have an objection to local government in those sorts of circumstances assisting the Environment Protection Authority?

Mr SANDERS: Yes, I would. I have grave reservations about the Environment Protection Authority being able to address the problem. I have concerns that a lot of the studies have been designed by the Environment Protection Authority to fail. I also have reservations that the Environment Protection Authority in a lot of instances has designed these studies to be misleading and inconclusive.

Ms DOUBLEDAY: Do you want to expand on that a bit – like when they are taking leaf samples and they are not doing that at a particular time?

Mr SANDERS: Yes. It is indicative of the fact that there have been many many hundreds of complaints over the last number of years. We will see evidence today, I believe, when you go on a trip on a farm, of environmental degradation. But, to my knowledge, there has never been one complaint that has led to litigation. There have been tree investigations, air sampling, water sampling – the lot – but nothing has led to any litigation regarding chemical contamination.

CHAIRMAN: We have some questions that we would like you to take on notice and answer. You will get them as part of the transcript. If you could quickly respond to those that you believe you have not answered completely already, so that that evidence can be part of our report. I thank you very much for that, and I will talk to you later today. The questions are:

1. Do you advocate any improvements in the licensing standards or training standards for pesticide applicators?
2. Can you explain to the Committee the potential benefits of including a “community” representative on the Statutory Advisory Committee proposed in the Environment Protection Authority discussion paper?
3. Are there any areas not addressed in the Environment Protection Authority’s discussion paper that you believe should be considered in a revision of the Pesticides Act 1978?

(The witnesses withdrew)

SANDRA STRONG, Chairperson, Gunnedah Chemical Liaison Committee, of Mountain View, Gunnedah,

SAMUEL PETER LEYS, Farmer, and member of the Gunnedah Chemical Liaison Committee, of "Redlen", Currabubula, and

IAN KERR GRANT, Committee Member, Gunnedah Chemical Liaison Committee, of 20 Walter Rodd, Street, Gunnedah, sworn and examined:

CHAIRMAN: Sam, what is your occupation?

Mr LEYS: Farmer and agronomist.

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

Mr LEYS: I am a committee member on the Gunnedah Chemical Liaison Committee.

CHAIRMAN: Sandra, what is your occupation?

Mrs STRONG: Health Service Manager.

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

Mrs STRONG: Chairperson of the Gunnedah Chemical Liaison Committee.

CHAIRMAN: Ian, what is your occupation?

Mr GRANT: I am Executive Officer for the Liverpool Plains Land Management Committee.

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

Mr GRANT: As a member of the Gunnedah Chemical Liaison Committee.

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

ALL WITNESSES: Yes.

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

ALL WITNESSES: Yes.

CHAIRMAN: If any 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. However, I should warn you that Parliament has the right to override the Committee's decision and make that evidence public. Would one or all of you like to make a short statement so that we will have time to ask questions of you after that?

Mrs STRONG: I have a presentation to make.

CHAIRMAN: If you have any documents that you would like to table, you might do that now.

Documents tabled.

Mrs STRONG: The Gunnedah Chemical Liaison Committee is a shining example of a proactive community that has addressed the concerns of local people; put in place a set of best practices; that has lifted, and will continue to lift, the standards and yet allow productivity of local agriculture to continue.

In support of the Gunnedah Chemical Liaison Committee submission "Improving Pesticide Management Discussion Paper", the Gunnedah Chemical Liaison Committee by its charter acknowledges the need for responsibility to be shown by all users of pesticides – farm, domestic, government and commercial users. The government role is to provide the relevant legislation, the revised Pesticides Act, and the appropriate resources for government agencies and community groups to operate within this area.

The Environment Protection Authority would implement the new Pesticides Act. This Act should not be the only standard: it should be the basic framework for the use of pesticides, and then industry groups and community groups should either finetune it to the specific industry requirements or the local community standards and requirements, or a combination of both. The basis for this premise lies within the Gunnedah Chemical Liaison Committee's conception and its growth to date.

Gunnedah, historically, has been a cereal crop/sheep/cattle grazing area, and the speed of change in agriculture in the last two decades has escalated. The Gunnedah Chemical Liaison Committee grew out of community concern of some of the impacts of the rapid change in agriculture.

Gunnedah Chemical Liaison Committee

We are a community-based committee, formed after a public meeting in August 1995.

Community Based Committee etc

The committee is a community-based committee giving community ownership of solutions. To ensure the above, the structure of the committee emphasised the need to be inclusive of industry so that industry had ownership of the best practices and so peer pressure could be applied.

The first full meeting was held in November 16 1995

There were two community farmers, nominated by the Upper Namoi Cotton Growers Association; two non-cotton farmers, nominated by the New South Wales Farmers Association; two chemical applicators; two ANEWPAC representatives, later the Gunnedah Environmental Group; one chemical supplier, now the Avcare representative; one New South Wales farmer representative; one New South Wales Department of Agriculture representative; one New England Area Health Service representative; one Gunnedah shire councillor; four community representatives, with these members being required to apply in writing and to be elected by their peers, and to be non-cotton farmers; and an Environment Protection Authority observer. That is a membership of 17.

Post mediation membership was increased by two nominees from the Liverpool Plains Land Management Committee.

CHAIRMAN: Currently, who are the two non-cotton farmers?

Mrs STRONG: Sam Leys and Jeff Swaine.

CHAIRMAN: And the Gunnedah shire council representative?

Mrs STRONG: Steve Smith.

Mr LEYS: Wheat and cattle producers. Jeff Swaine is wheat, cattle and sheep.

CHAIRMAN: Are the two cotton farmers just straight-out cotton farmers?

Mr LEYS: No. They would have mixed enterprises, too. One of them has a large corporate farm that has feedlot and cattle.

CHAIRMAN: Who are they?

Mr LEYS: Keith Harris from South Pacific Agricultural Company, and Peter Cone, who took over from the original fellow, and he is actually the Cotton Australia representative.

CHAIRMAN: I am trying to find John Lyle's name there somewhere.

Mrs STRONG: John Lyle is the alternative council representative.

Gunnedah Chemical Liaison Committee Charter

(a) Establish our Charter

Mrs STRONG: The first requirement of the committee was to establish a charter. That charter was:

To reduce community concern in the use of agricultural chemicals by developing and promoting “best practice” procedures in the Gunnedah and surrounding districts.

You will notice that there are six points to the charter, and I have included those in the packages that have been tabled today. The six points do address the terms of reference that we are speaking about here today. The last point is one where the Gunnedah Chemical Liaison Committee is a conduit for information flow between government agencies and the community. In fact, at times we have taken the heat off the Environment Protection Authority in more controversial times.

(b) To review the Guidelines and distribute to every farmer

The next thing we had to do was to review the guidelines. I also included those in your package. They are leaflet guidelines.

(c) To establish an Incident Reporting System and responding system

The next thing was to formulate an incident report form, which is also part of your package. These are located strategically throughout our shire council. The result of the development of an incident and reporting mechanism, plus a method of handling of complaints, has resulted, I believe, to one of the important aspects of our committee, in that it led to pre-season meetings between neighbours. So, in actual fact, we had started communication between farmers and applicators of agricultural chemicals. So it was not just communication between cotton and non-cotton growers; it was between cereal crop growers and graziers.

Challenges GCLC has had to face

All that was achieved by the Gunnedah Chemical Liaison Committee has been achieved despite some adversity. Some of the challenges that we have had to face have been the “enviro-politicians” running their own agendas; sensational reporting – and sometimes incorrect reporting; that the GEG was part of our committee, and then it decided to withdraw; and the Environment Protection Authority’s inability to provide leadership in giving solutions – with no line in the sand, no acceptance that it is not achievable to get zero levels.

A challenge has been that frivolous and vexatious complaints can continue without accountability for frustration and worry that that causes, and we have had examples of that; reactionary action, which is time consuming, hindering the proactive direction that the Gunnedah Chemical Liaison Committee is striving to take, as set down by our charter; difficulty in accessing the political ear; and another challenge has been in trying to find solutions, but being hindered by such things as no access to maps, which was another condition of mediation.

Achievements

The most difficult achievements to assess is attitudinal and behavioural change. Yet here, I believe, the Gunnedah Chemical Liaison Committee has been responsible for a huge attitudinal and behavioural change of users of agricultural chemicals. As previously stated, basic communication between neighbours has been the basic change.

Aerial applicators note a marked shift in farmers accepting accountability for their practices, and in farmers working within the guidelines as set down.

We now find that the majority of farmers have undertaken best management practices education. This has been encouraged by the Gunnedah Chemical Liaison Committee. An example of that would be the endosulfan; and Gunnedah area is the only major cattle growing area that has not had a beast go down the chute. We attribute this to the following of the guidelines for best practice.

The Gunnedah Chemical Liaison Committee has given leadership and been part of the testing and monitoring of residue levels. An example of this is the Environment Protection Authority rainwater tank report in February 1998; health testing has been done; and there has been participation in the health impact workshops in Sydney by the previous chairperson.

The Gunnedah Chemical Liaison Committee has been responsible for education of operators – raising community awareness. This is an attitudinal and behavioural change. An example of that is a pest control operator locally who now places alert signs around the perimeters when he is spraying for spiders in houses, raising the awareness of the community.

We believe we are a model of a community group. The Gunnedah Chemical Liaison Committee is a shining example of a proactive community that has addressed the concepts of local people. It has put into place a set of best practices that has lifted, and will continue to lift, standards and yet allow productivity of local agriculture to continue. That concludes my presentation.

CHAIRMAN: Do you have a copy of those overheads?

Mrs STRONG: Yes.

Documents tabled.

CHAIRMAN: How are the incident report forms distributed? I think you said that they are distributed by the Gunnedah Shire Council.

Mrs STRONG: They are available at the shire. We circulate them. I have them at the Health Service. They are at local chemical outlets, and they are promoted in our media and press releases. Our publicity officer from time to time makes mention of the fact that they are available.

The Hon. I. M. MACDONALD: How many of these incident report forms have been lodged?

Mr LEYS: The exact number that have been lodged over the years that we have been operating I could not give, but I think in the first there were something in the order of 30 or 40.

Mrs STRONG: Thirty-five, I think.

The Hon. I. M. MACDONALD: The first year being?

Mr LEYS: It would have been 1996. The second year would have been 1997. Again, there would probably be around 20-odd. Then it would tail off. This last year we have had only about four or five, or something like that.

The Hon. I. M. MACDONALD: Is there a reason for the tailing off?

Mr LEYS: Yes. I think it can be attributed to ---. Initially there was a great deal of concern. One of the things that we are trying to get across here is that in agriculture in the last two decades there has been quite a deal of rapid change in this area and in many other areas, and changing systems. In this particular area, we saw the introduction of a newer crop, or the expansion of a newer crop, as well as changing systems in our normal agriculture of winter cereal and summer cereal production, and the introduction of zero till response cropping, and that sort of thing.

So, in that change that took place there was, I guess, with the irrigated cotton industry some increased visibility with the application of chemicals, and so there was a general community concern that started to appear during 1995. In that time since, we have developed these procedures which I believe have brought the alleviating of that concern. There certainly are some people in the community whose expectations we have not been able to live up to, but there are a vast majority of people who initially had concerns but now feel that there are procedures and best practices that have been put in place that they are more comfortable with.

I think we as a committee have been leading the way with the development and implementation of these best practices. In fact, those best practices that were initially developed here have actually been taken on board by Cotton Australia in the development of its best management practice manual. In fact, we are acknowledged in that best management practice manual as the Gunnedah Chemical Liaison Committee.

Mr GRANT: Just another point on a reason for the reduction in the submission of the incident reports forms. The committee initiated an agreement between neighbours. So a member of the committee might go out to a farm where neighbours are concerned about the application of chemicals, and as we sit down and complete the form, the neighbour who might be applying the chemical on a crop agrees that they will contact the person concerned before spraying and let them know what they are going to use, and they agree on the conditions under which they are going to use the chemical. So that sort of initiative alleviates concerns throughout the season, to a certain extent.

The Hon. I. M. MACDONALD: What about issues like those that have been raised with the Committee, of chemical drift or chemical trespass? Do you think that in recent times that has been reduced through this best practice management system?

Mr GRANT: I will answer that and then hand over to Sam or Sandra. Again, the reduction in complaints would indicate that to a certain extent.

Mr LEYS: Part of the development and implementation of these best practices I believe is somewhat of an intangible that you cannot actually measure. You talk about the number of complaints, and we look at the number of complaints, which may have increased or declined or whatever. But, one of the very important things that this committee has been the promoter of, and I guess the instigator of, is an attitudinal change. We have been part of that, as have other bodies.

One of my throw-away statements has been that I don't believe that in this Gunnedah community any more does a farmer grab a drum of chemical, rip the lid off and away he goes. When he does take the lid off a drum of chemicals these days he does, subconsciously or whatever, think, "What impact will my use of this chemical have?" I think drift is a hazard of the use of chemicals. There is no doubt about that, and no-one steps away from that. There is always the potential for accidents to happen, or for things to be used in inappropriate conditions and for drift or other detrimental impact to happen.

But, what we have been part of is that attitudinal change to look beyond the job that the person is doing, to look across the fence and the impact on not only your neighbours but also the environment. Those are the sorts of things that are happening. We are seeing things like maps going in, not only for cotton farmers but for regular cereal farming and the like. Maps are going in. There are discussions, as Ian said, between farmers so that they will know where sensitive crops are, and where there are potential hazards. Those sorts of things are happening. We believe, therefore, that the hazard of the potential for that hazard of drift has decreased.

Mrs STRONG: One other thing, for example, is our promotion of wind socks and wind meters. We will have a presence at Agquip this year in conjunction with the local shire. We promote having those things available for the community. So we are advocating that these be used and that they be available to be used.

CHAIRMAN: A small wind sock or something like that that the farmer can have when he is spraying?

Mrs STRONG: Yes. And wind meters.

CHAIRMAN: The point you raise is very important. Just as you were about to mention attitudinal change thoughts were going through my mind that we would never have had the success of the Clean up Australia campaign if it were left to the local government measures. Local government would never have achieved exactly the same success by the \$200 fine that it has for littering. However, we do need those fines; we

need to keep those sanctions in place for the cowboys who ignore everything. Another example is trees on farms. Those are two attitudinal changes that have occurred.

Mrs STRONG: We use drink-driving as an example.

Mr LEYS: Drink-driving is the one that we use often. You can have as many policemen and RBTs around as you want, but you won't stop it by using those means. It has got to stop at the attitudinal level. It is a matter of attitude.

The Hon. I. COHEN: Mrs Strong, you all talked about the best practice guidelines. What exactly are they? And do you have records on the effects of the changes in practice? Is there anything that you can submit to the Committee that clearly shows that there is a reduction in the level of chemical trespass today, as compared with a few years ago?

Mrs STRONG: I go back to my comment in the presentation regarding endosulfan and rainwater testing. The communication from the aerial operators is that there is a change of attitude and a change in the behaviour of farmers.

The Hon. I. COHEN: That may be the case. But do you have any results that there is less of this pesticide contaminant in neighbouring tank water, and are there any results that less people are being affected by pesticide trespass – on medical records or on Health Department records? Do you have any of those that you can submit to the Committee?

Mrs STRONG: No. There is the Environment Protection Authority for rainwater tanks, the 1998 report from the Environment Protection Authority. In 1996 the levels of endosulfan were – and I am going from memory – was, I think, 0.27 parts per million. In 1997 it was 0.12 parts per million. The MRL recording is 40 parts per million. So, while we were less in 1997 than we were in 1996, we were still well under the world health standard.

The Hon. I. COHEN: I would ask you to take on notice this question. Could you present to the Committee evidence that is convincing that there is less contamination from this area? Would you take that question on notice.

Mr GRANT: I suppose the place that pesticides are in a catchment area like this is in the water stream. Around Boggabri or somewhere the Department of Land and Water Conservation has carried out some water quality surveys over two years. It was not as thorough as the Liverpool Plains Land Management Committee intended it to be, but there are some results there. But there is no evidence from that to say that there has been a decline. There has not been a history of water quality testing within the area.

That would be the Department of Land and Water Conservation' role and core business, I would think. That is what the Liverpool Plains Management Committee believes is Department of Land and Water Conservation core business. But it has not

been picked up. We are talking about future best practice in farming systems and environmental management systems.

The Hon. I. COHEN: I appreciate the concept of best practice, but it has something of an empty rattle to it when we keep hearing about best practice but there is no proof. I draw to your attention a media release by the Minister for Land and Water Conservation in 1996, giving a warning on agricultural chemicals. He says:

The Central and North-west Water Quality Program is now in its fifth year and is a study into the effects of pesticides from irrigated agricultural on surface and groundwater in the Border, Namoi, McIntyre and Macquarie River Basins. It also studies nutrients and trace metals and monitoring river biology

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.*

You are saying there is a marked drop in pesticide levels. You are referring to best practice. I am not hearing this is necessarily the case.

Mr GRANT: That is not true. What Sandra said was that there was a drop in rainwater tanks. What I am saying is that you read out three or four catchments, but not one of those catchments is the Namoi. This is the Namoi catchment.

The Hon. I. COHEN: It actually mentions the Namoi and Border Rivers basins.

Mr GRANT: There has not been comprehensive water quality monitoring done in this catchment by the Department of Land and Water Conservation over a period of time. There was two years or something, but that was not enough to indicate any long-term change in pesticides getting into the water stream.

The Hon. I. COHEN: You mentioned complaints reduction. I am hearing real concern that the complaints reduction in part is due to intimidation; that there is a culture of cover-up. I am unconvinced by a witness we heard yesterday who was saying that there are no problems, particularly in children and in general health from the cotton industry. Yet I am hearing other evidence and indications from the community that there is a significant number of children suffering from respiratory diseases. Could you give an opinion on that?

Mr LEYS: Can I make a further comment before we step into that one?

The Hon. I. COHEN: Yes.

Mr LEYS: You are asking us do we have clinical evidence to present to you. One of the things is that to get that sort of information you have to have a resource base

to do the work to collect that data. Now, there are government departments doing that. We have not been sitting around collecting that sort of information. We are working on what is happening here and trying to apply pressure to the users of chemicals to change their ways and change their attitudes.

I know – and this is one of the things that gets raised often – that we do not have statistics, and we don't have clinical evidence, because we are talking about some of those intangible things. Sandra will probably want to talk more about the health aspect, but I was actually part of a health workshop back in 1996 that looked at ways of determining a testing program so that some of these things could be clearly detailed.

I was one of the lay people, but there were quite a lot of professional people involved in it. One of the things that we are dealing with here is probably some-low level, long-term exposure that is not like an acute application or an acute spillage or something like that if you are talking about chemicals.

The Hon. I. COHEN: The aerial spraying of a school bus, for example? We heard evidence of that yesterday.

The Hon. J. R. JOHNSON: Allegations.

Mr LEYS: Allegations. There is no dipstick test that you can do that shows it up. I was part of that committee that looked at developing some sort of testing regime that would look at these long-term, low-exposure to some of these things in our environment.

The Hon. I. COHEN: You do have incident report forms, and you have a number of those forms submitted over the years from 1996, and they indicate that there has been a reduction. But has your organisation made any application to any State government body, such as the Health Department, to actually have adequate testing and assessment of medical records in the community? Have you made that application?

Mrs STRONG: Actually, we have an affiliation with New England Health through the Public Health Unit. The Public Health Unit and the Agricultural Health Unit at Moree, with Dr Lyn Fragar, were the people who were involved in the initial health study that was undertaken in 1995-96. That study in itself asked for people who had a perceived health problem arising from contamination from chemicals to present, and I think there were 58 people who actually presented.

My understanding of the result of that is that it was not conclusive. The other thing that we have done through the Public Health Unit is that they have been undertaking an asthma survey, visiting the doctors. It is quite a simple survey by which they fill out information to try to monitor that. I was actually in touch with them probably six weeks ago, to see where we were up to with that, and were they going to re-run it again. I have been assured that, yes, they will be doing that.

The Hon. I. COHEN: When you said that those results were inconclusive, what does your organisation think of the precautionary principle when we are dealing

with community health here? Do you accept a precautionary principle when dealing with the health of young children in particular?

Mrs STRONG: Yes.

The Hon. I. COHEN: Do you accept that under that principle there may be a crossover between chemical trespass and particularly respiratory diseases in this area?

Mrs STRONG: Yes.

The Hon. I. COHEN: If that is the case, then, other than advising aerial sprayers and trying to change the culture, have you accepted that there is – I dare not say a state of emergency – but that there is a serious emergency in community health in this area?

Mrs STRONG: No, I don't accept that last statement.

The Hon. I. COHEN: You don't accept that?

Mrs STRONG: I accept that there are people who do have a sensitivity to chemicals. I also accept the premise that we are farming/agricultural community, and I believe that it is a community issue and that the community needs to find some resolution to that problem.

The Hon. I. COHEN: If in fact you are wrong, who should be responsible?

Mrs STRONG: It is a community responsibility.

The Hon. I. COHEN: Who is the community? Who in the community is responsible – is it the landowner, is it the applicator of the spray, or is it the government department?

Mrs STRONG: You are dividing and separating community. I am talking about a community as a whole. When you look at the composition of our committee, actually we are a community committee. There has been quite a lot of concern expressed by the environmental group that we have an industry bias. Industry, in reality, is very much part of our community. Industry is not the major part, but it is part of our community.

The Hon. I. COHEN: If someone undertakes violence as part of that community, you lock them up. I don't think it is a very good answer to say that they are part of the community. What I am concerned about is that there is a significant amount of anecdotal evidence and a great deal of concern in the community that there is chemical trespass that is causing illness.

CHAIRMAN: They are a community group. We are only asking: If there is a particular chemical incident, who should the Environment Protection Authority be able to take to court? Is that what you are asking?

The Hon. I. COHEN: Yes.

Mr LEYS: What we have got to look at is that you are talking about one segment of the total community health. Farmers or applicators may be responsible at some stage or at some point in some incident for that segment. But we are talking about a total thing, a long-term thing, which I guess is like the use of motor cars in cities and that sort of thing. There has to be community ownership of that problem. That is the level that I think we are at with these sorts of things.

Mr GRANT: The same as the drink-driving issue.

The Hon. I. M. MACDONALD: Is there evidence beyond what you have said so far of increased mortality and major illnesses above and beyond Australian standards and averages?

Mrs STRONG: Not that I am aware of. We recently had a member from the Public Health Unit, about three months ago, at our meeting and we posed that question to him as well. The standards in Gunnedah are no different from those elsewhere.

The Hon. I. COHEN: Are respiratory disease levels in Gunnedah no different from elsewhere?

Mrs STRONG: Can I speak on a personal example? My father is mature aged; he is 86. My father lived in Lismore. He has had two respiratory arrests in Lismore and has severe asthma COAD. Since he has been in Gunnedah he has not been better; he has not actually had an asthma attack in Gunnedah. Areas are different.

The Hon. I. COHEN: I am still concerned that we are not getting the truth.

CHAIRMAN: In the interests of time, I will ask the Hon. John Johnson to ask his questions.

The Hon. J. R. JOHNSON: Is the Public Health Unit a municipal or State government instrumentality?

Mrs STRONG: The Department of Health.

The Hon. J. R. JOHNSON: Based in Gunnedah?

Mrs STRONG: Based in Tamworth. I think they are going to give evidence later in the day.

The Hon. J. R. JOHNSON: Yes. How many active members do you have in your group?

Mrs STRONG: A hundred per cent.

The Hon. J. R. JOHNSON: A hundred per cent of what?

Mrs STRONG: We have a 19 membership, but the two Gunnedah Environment Group people have resigned. So we have 17 and they are all active members.

The Hon. J. R. JOHNSON: All active members?

Mrs STRONG: Yes.

The Hon. J. R. JOHNSON: But you have a wider group also, have you?

Mrs STRONG: We went back to the community in 1996-97, when the Gunnedah Environment Group withdrew at one stage from our committee. Because we are a transparent committee and a community-based committee, we went back to the community. We advertised extremely well through the media. We asked the community to come along and either endorse us, criticise us, or tell us what we were doing right, wrongly or indifferently. Some 263 attended, I think.

The Hon. J. R. JOHNSON: How is your group funded?

Mrs STRONG: We are not. That is a sore point.

Mr GRANT: The group gets support from Gunnedah Shire Council for administrative duties, such as the posting out of minutes and that sort of thing. The Liverpool Plains Land Management Committee has given provisional funding of \$2,000. It is dependent upon reciprocal funding from industry or from a State agency or from any other body. The Liverpool Plains Management Committee has not paid that money because a State agency has not supported the committee, nor has industry. The committee has been loathe to go to industry for support.

The Hon. J. R. JOHNSON: But a State agency has not funded you?

Mr GRANT: There has been no State money for the group.

The Hon. J. R. JOHNSON: Have you made application for support?

Mr GRANT: Several.

CHAIRMAN: For how much?

Mr GRANT: Enough to run the committee – about \$6,000 a year.

Mrs STRONG: If, for example, the Gunnedah Chemical Liaison Committee were given the same amount of money that the Gunnedah Environmental Group is given to attend mediation, it would run us for two years.

The Hon. I. M. MACDONALD: It sounds like there was a bit of bias there. Is that right?

Mrs STRONG: I would think so.

Mr LEYS: It is our opinion, yes, in that particular instance. I believe what we are all here about is how best in the future we can manage pesticides in New South Wales. I think one the opening and closing statements that Sandra made was that we honestly believe that we are a shining example of the way that a proactive community can get involved in the management of pesticides.

We believe that what we should have in New South Wales is the basic minimum standard set by legislation – the basic framework or the skeleton of the way that pesticides should be used. We believe, from our experience, that the next step from that is to finetune to the local area and to the local community's needs – and they might be different in Goondiwindi to what they are in Nimbin or what they are at Gunnedah – but we should finetune those needs by the implementation of best practices, through involvement with the industry that is in that area, whether it be the beef cattle industry, the vineyards or the cotton industry.

We finetune so that we then have quite possibly an effect that has operated, we believe, here since the end of 1995; that is, levels of standards that are far higher than those stipulated in the Pesticides Act. We believe that here in Gunnedah in the last however many years since 1995 there have been three tiers of management for the use of pesticides. We have the basic Pesticides Act; above that, with a higher set of standards, we have the guidelines that everyone has agreed to implement, guidelines that have been brought about by peer pressure; and then, at a very localised level, farmer to farmer, some initially through the introduction of sensitive area management plans, where we negotiated plans between parties. Since mediation, we are actually having that taking place farmer to farmer, neighbour to neighbour, on a one-to-one level, where there can be even more stringent requirements for the application of chemicals on that farm.

In other words, there will be agreed buffer zones and so on. We have people in the Breeza area where, on one side of the road, cotton is not grown, where only Ingard cotton is grown, and where certain chemicals are not used. That is finetuning it to that specific area. We believe that that is the sort of model that can be used for the management of pesticides in New South Wales. In fact, we believe that we have done a lot of the groundwork that can be modelled elsewhere in New South Wales. As a result, we believe that there needs to be adequate funding for these community types of groups to do that sort of work. It is putting the ownership of these issues back to the community.

The Hon. I. COHEN: You spoke about the finetuning of the genetic engineered crop. If they are going to be spraying three times during that season, they are still spraying pesticides on the genetically-engineered crop in its first generation. Isn't that in itself a danger?

Mr LEYS: I don't understand exactly what you mean. We are getting down to very specific management of a crop.

The Hon. I. COHEN: You are still spraying genetically-engineered pesticides on those crops. Yes, it is less, but you are still spraying pesticides. Is that good management? In the first generation of genetically-engineered crops you still have to spray pesticides.

Mr LEYS: I think we are getting into the specifics of the management of a particular crop, but I would think what you stand back and look at there is that on the conventional crop alongside we may be using five or six times the amount of chemical, and that genetically-modified crop has allowed less pesticides to be used. So, therefore, that reduces the potential hazard. Each time you use one of these, there is the potential for something to go wrong. So you are reducing the potential.

The Hon. I. M. MACDONALD: Mrs Strong, you said in your presentation that part of the problem in the area has been the negative impacts created by the enviro-politicians, by sensational and inaccurate reporting of the industry, and on occasions that there are vexatious complaints. Can you give me some examples of those types of things that are probably inhibiting general community consensus on these issues?

Mrs STRONG: An example of a frivolous and vexations complaint would be a complaint of odour and of people being sick, but on investigation finding that it was fertiliser that was being put out by the aircraft.

The Hon. I. M. MACDONALD: What about the problem of enviro-politicians running their own agenda, and the sensational and inaccurate reporting of those issues?

Mrs STRONG: One of those would be the trees.

Mr LEYS: One of the problems that we really have not addressed here today is that you can say there is serious contamination, with the ability to detect very low levels of pesticide in tanks or whatever. We had media reports here in 1997 that our rainwater tanks are poisoned. That was in one of the local newspapers. Clearly, at the very low levels – 0.06 parts per million of chlorpyrifos, yes, there is chemical in the tank. But let's put that in perspective. There is six-hundredths of an eye dropper in the Olympic swimming pool. There are larger potential hazards around than that. We have had to fight that sensational reporting.

The Hon. I. M. MACDONALD: Is it designed to scare people?

Mr LEYS: It is probably designed to scare and worry people. We have had individuals in this community who are running to their own agenda. I have quite clearly stated that we have not been able to live up to everyone's expectations. I do not think that is possible in any community. What we are trying to do is meet the general consensus of the community, and continually re-assess and lift the standards over time, taking the people with us – the users and agriculture – in raising those standards. I think that is what this community should be about.

The Hon. J. R. JOHNSON: Do you act as mediators?

Mrs STRONG: Yes.

Mr LEYS: Yes. There was a very large component of that initially. I will be quite honest with you: there have been five or six long-running and continual disputes. The chemical issue is only the latest incident in a very complicated neighbour to neighbour situation. That is the honest truth of it. In the initial year we went in and negotiated six what we termed sensitive area management plans, to try to sit people down and get them to negotiate a position where the concerns of one person and the needs of the other person to do a specific task in his agricultural business are discussed and melted together by negotiation. One of the job descriptions for the chairman of the chemical liaison committee was to be a very good negotiator.

CHAIRMAN: We have some other questions that we would ask you to take on notice. Those questions are:

1. Would you comment on the expression “a person shall not wilfully and without reasonable cause” in section 37 of the current Pesticides Act, which provides:

Offence to cause risk

37. *A person shall not wilfully and without reasonable cause do anything likely to cause:*

- (a) *a risk of injury by a pesticide, to that or another person; or*
- (b) *damage by a pesticide, to the property of another.*

2. Do you advocate any measures to limit the occurrence and impact of pesticide spray drift?
3. Can you expand upon the concerns raised in your submission regarding clarification of working in the Environment Protection Authority’s discussion paper?
4. What additional benefits could be achieved through the establishment of a regionally-based advisory committee that operates in conjunction with a statutory advisory committee on pesticide management?
5. Are there any areas not addressed in the Environment Protection Authority’s discussion paper that you believe should be considered in a revision of the Pesticides Act 1978?

(The witnesses withdrew)

LYNETTE JOYCE FRAGAR, Director, Australian Centre for Agricultural Health and Safety, of "Kurraian", Delungra, sworn and examined, and

CHRISTINE MARY ROBERTSON, Director, Population Health and Planning, New England Area Health Service, affirmed and examined:

CHAIRMAN: Dr Fragar, in what capacity are you appearing before the Committee?

Dr FRAGAR: I am appearing before the Committee as Director of the Australian Centre for Agricultural Health and Safety.

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

Dr FRAGAR: I did.

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

Dr FRAGAR: I am.

CHAIRMAN: Mrs Robertson, in what capacity are you appearing before the Committee?

Mrs ROBERTSON: As Director of Public Health of the New England Area Health Services.

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

Mrs ROBERTSON: I did.

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

Mrs ROBERTSON: 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 should warn you that Parliament has the right to override the Committee's decision and make your evidence public. Would you like to start by making a brief statement before members of the Committee ask you questions?

Dr FRAGAR: Mr Chairman, I understand that I am here as a result of the submission that was made by the Director General of Health, Michael Read, and mention of the work of the Australian Centre for Agricultural Health and Safety ,

which was the Australian Agricultural Health Unit, has been made in the submission that was made by New South Wales Health. I have not myself made a written submission to the inquiry, but I would welcome the opportunity to make some observations in relation to the work that I have been undertaking.

CHAIRMAN: You did make a submission to the Environment Protection Authority on the discussion paper relating to the Pesticides Act that was circulated, and that body has forwarded its submissions to this Committee. So this Committee has not only the submissions that we called for but all the submissions that went to the Environment Protection Authority over the last two years as well.

Dr FRAGAR: Thank you. First of all, I would like to correct one error of fact in the submission made by the Director General of Health. It is on page 3 and states that "MRLs are derived from World Health Organisation acceptable daily intakes and are not primary health standards as such." The error is that, within Australia, Australia sets MRLs based on independent Australian assessment of data provided by proponents for the registration of agricultural chemicals within Australia and does not automatically take WHO acceptable daily intakes.

In terms of background, I am the director of a centre that is a centre for research and development that is primarily looking at the health and safety of the farming population of Australia. Also, our centre is the operations centre or secretariat for Farmsafe Australia. If I may use the overhead projector to assist in some of this presentation, that would be useful.

The members of Farmsafe Australia are these organisations. Farmsafe Australia is an association incorporated within the Australian Capital Territory. The member agencies are the National Farmers Federation, Country Womens Association of Australia, the Australian Workers Union, the Rural Industries Research and Development Corporation, what was the Department of Primary Industry and Energy and is now the Transport and Regional Services and Agriculture, Forestry and Fisheries, Worksafe Australia, Rural Training Council of Australia, the Australian Centre for Agricultural Health and Safety as the only unit in Australia dedicated to agricultural health and safety issues, each of Farmsafe organisations in each State which are member organisations of the national organisation, and the Rural Industries Training Council of Tasmania.

I give you this background because one of the key roles of the Farmsafe organisation has been to research and produce guidelines and guidance material for the farmers, farm owner-managers and workers in agricultural health and safety, and a portion of the work that we do in that area relates to safe application and use of agricultural chemicals. It is not the highest priority in the work that our centre undertakes. By far the bigger issues relating to health and safety on farms relate to the very high number of deaths and serious injuries caused by tractors and machinery and animals, and the drowning of children in dams, and so forth. So that pesticides are one of a whole range of issues that we have been addressing.

In terms of the work that we have undertaken with pesticides, early in the life of our centre, back in the early 1990s, we produced a paper that defined issues of concern in relation to pesticides and human health in agriculture. I sit on the National Advisory Committee of Pesticides and Health within the Therapeutic Goods Association of the Commonwealth Health Department that provides advice about health issues to the National Registration Authority. We have undertaken some limited research in the area of agriculture and health and safety relating to pesticides. We did a study of exposure of cotton chippers to pesticides, cotton consultants and bug checkers to pesticides, and a joint study with some other agencies looking at exposure in the horticulture industries.

We are available to give advice on agricultural health and safety matters, including pesticides, to public health units within New South Wales, and more widely to the health system. In that capacity, we have undertaken some work with the New England Area Health Service within the Gunnedah area and elsewhere. As I say, we produced guidance material primarily for farmers and farm workers, so that we have been actively involved in the development of the Managing Farm Safety course that is now available to farmers right across Australia. We have established the Farm Safety Training Australian Centre, which is delivering that course within New South Wales, and we have established similar centres within other States.

Within that program the whole issue of hazard identification, risk assessment and risk control for pesticides is considered along with the other hazards that farmers are required to manage under occupational health and safety legislation. The Managing Farm Safety course for farmers and farm managers has been developed after analysis of hazard and risks within each commodity organisation. However, it is not within agriculture as a whole, but with particular commodity groups.

The work that we have undertaken with the sheep industry, grains industry, cotton, dairy, beef and horticulture has underpinned the development of the guidance and resource material that is available. I will leave with you a leaflet about the Managing Farm Safety course.

This slide on agricultural zones of health importance across Australia is obviously not coming up well on the overhead. Basically, it is just to reinforce the point that agriculture is not homogenous and that across Australia you have got the beef and sheep areas in yellow, down the tablelands area as well. Wherever there is blue there are grains; wherever there is crosshatching on that you have got irrigated cropping systems as well; and then, up the coast, you have sugar cane, dairy, and you cannot differentiate the pink and red there, but basically your banana and horticulture growing areas are of importance.

The reason that I draw attention to that is that, in relation with pesticides along with other hazards, the issues are different between industries, but nonetheless each has health and safety concerns to be addressed in relation to pesticides use. Early in the piece, working with the Department of Agriculture in New South Wales, we defined that the industries of cotton and horticulture and the sheep industries were key

industries that needed attention in terms of assistance with the safe handling of pesticides.

I think it is important, as we consider issues of aerial application of pesticides as being of community concern, it would be our view that the human exposure to pesticides is probably occurring more in the sheep industry at the moment with the handling of pesticides used in ecto-parasite control. The sheep industry is addressing that as a high priority issue of concern.

You have had drawn to your attention, I believe, the issues paper or discussion paper that we produced. Within that paper I have proposed a framework in which we should be considering public health approaches to the issues of pesticides. That is the table that appears within that paper. In fact, I would propose to expand on that a little, and I will leave this one with you. I have focussed on some particular issues here.

Basically, I believe that a well-rounded approach that addresses the public health concerns about pesticides should focus on and be targeted towards understanding more about pesticides and their toxicity; understanding about pesticide exposure and impact relating to those who handle pesticides, such as workers in agriculture and their immediate families; and pesticides and their exposure and impact on rural communities, which is the context in which the paper was written but you could take it, if you are looking at food and products, to be the wider community even beyond the rural communities, when considering residues in foods and whatever.

Then the nature of the sorts of inquiries and the surveillance requirements are listed. That has been recorded, and I do not want to go over all those components that are in that discussion paper. However, I do wish to highlight some issues that are important and some things that have happened since that paper was prepared.

First of all, I think that we can do better in terms of worker exposure monitoring. In my view, the people most at risk to pesticides and adverse human health effects are workers. They are the people who are handling it in a whole range of contexts and work activities. They are as well handling a whole range of different types of chemicals, and it is therefore imperative that we reduce exposure to all chemicals and that workers and farmers are making informed decisions about what they are going to handle and how to do that, and that they are ensuring that they are not exposed.

There are some other issues that I think need to be addressed. I would like to see support given for establishment of an adverse health effects register, which has been on the agenda of various agencies for a long period of time.

But, the thrust of what I would like to say in this preamble relates to the provision of information. When you consider how pesticides are controlled in Australia, I think we have a very complex issue. We have many chemicals that are used in many different usages and under different conditions in different industries. We have three levels of government that are involved in the control of pesticides within Australia – Federal, State and local government being involved in some ways.

We have a whole range of ministries that are associated with those at different levels, so that we have got environmental protection agencies, departments of agriculture, regional services, local government, land and water, planning, health, occupational health and safety, and training – all with responsibility, some of them legal and some of them otherwise – in the whole issue of pesticide control/management/provision of information.

In addition to that, we have a whole range of different industry organisations. We have Avcare, we have the various QA programs of the various commodity groups that are actively involved in reducing residues in products. In addition to that, we have the Farm Care course – and I have just described Farmsafe and its role as well.

The effect of this is that, at the moment, if you are Mr or Mrs average farmer, farm worker, person living in a rural community or even in our own position with an agency with responsibility in this area, is that the whole system is so complex that, to find the information that you need under our current structural arrangements is virtually impossible, unless you have an intimate knowledge of the administration and arrangements and of the legal responsibilities of those agencies.

I would suggest that within New South Wales at least we should be taking action to establish a central co-ordinating and controlling body, in the interests of improving communication between agencies. At the moment, such does not exist. We set out in the Australian Centre for Agricultural Health and Safety with a view to developing guidance material for farmers on this issue, not to walk into a program of research and development.

When we began to look at the problem we realised that there were already so many agencies involved in the issue that we took a conscious decision not to be further involved, and so therefore not to further complicate the issue – only to find that, as we tried to gather information or to provide advice to people who were turning to us for that help, that there were, despite the large amount of activity in the area, gaps in information in the health area that needed to be filled. And so we began a reluctant path to becoming involved in it.

The previous government had a ministerial advisory group on pesticides, not relating to health particularly but that provided at least some arrangement whereby government departments at State level could communicate with each other about their programs and issues; and where, if you identified gaps, then a discussion could be held about what would be a good recommendation to make about filling those information gaps. At the moment we do not have such an arrangement at State level.

I believe that, with the development of that national strategy there are the beginnings of that sort of opportunity for liaison and communication at that level, and some sort of an arrangement whereby government agencies and other agencies with an interest and responsibility in this area can come together at the New South Wales level, and that that would greatly enhance the capacity of agencies to do their work better, in the full knowledge of what each other is doing; and, when problems occur, to be able to

find out who is dealing with; and for clarification of the roles that various agencies have but that are not well understood or known outside the basic “club” of people who are in the know. That would be my main recommendation to come out of my experience in this area.

CHAIRMAN: Have you got a copy of those overheads?

Dr FRAGAR: I could leave those with the Committee.

Documents tabled.

CHAIRMAN: Christine, did you have an opening statement?

Mrs ROBERTSON: Very short. I am actually very fortunate in the New England Area Health Service because Lyn Fragar is our medical officer of health, which means that we do have extra expertise in this area within our Public Health Unit.

The Public Health Unit people who would be involved in issues relating to pesticides and agriculture are the medical officer of health, myself as the director, three environmental health officers, one of which is a senior, and a very small research team that has very limited opportunity to deliver research.

We operate under several Acts – the Food Act, the Clean Water Act, the Public Health Act – but not under the Pesticides Act, which belongs to the Environment Protection Authority. We operate under a charter, which I will leave with you. This charter is not an official Department of Health document but a public health network charter, which the New England Public Health Unit has adopted, with the blessing of the New England Area Health Service.

Our objectives are:

1. To monitor and research health status and trends, and the factors influencing them;
2. To investigate and respond to identified public health risks and potential health hazards;
3. Develop and implement strategies to maximise population health gains and to reduce health inequities; and
4. To develop the capacity of health services, other sectors and the community, to implement strategies to address priority public health issues.

CHAIRMAN: You will table that, will you?

Mrs ROBERTSON: Yes. All these bits of paper will be tabled.

Documents tabled.

Mrs ROBERTSON: I want to give some background on why there is such difficulty in this area, and pinpoint what causes people's illness. We have a phenomena in this area, right through this valley, through Gunnedah and Tamworth, related to ryegrass pollen. We have acute episodes of asthma. Sometimes we may get 20 extra admissions into Gunnedah casualty and 30 into Tamworth, and sometimes they can actually be in the hundreds, and it can be quite a disastrous issue. Unfortunately, this particular phenomena occurs also during spray time. I will leave a copy of the epidemic asthma in Tamworth study, which was done in 1991 by a very distinguished scientist in relation to this problem. It just adds to the fuzziness of what we can actually define as human effects of pesticides.

I have also brought along for tabling the Preliminary Report of the Human Impact of Pesticides on affected Persons in the Gunnedah Community. This was a study done by Lyn Fragar and Rob Loblay and several other people, a study that was mentioned before by Sandra, relating to people who perceived that they had ill effects from pesticides.

What actually came out of that was the upper respiratory tract, lower respiratory tract, skin, eye and general issues illnesses that people were able to say they suffered from. Unfortunately there was not conclusive evidence but enough indication that perhaps this was involved. But then, when you get back to this issue, it is much the same sort of allergy reaction. It is the major problem that we have. From knowledge of world-wide levels, and from working with Lyn and with the statewide so-called committees, these lists of symptoms unfortunately fit into many other descriptives. So that makes for a problem of a definite answer.

I have also brought along what happened because of the perceived overspraying that was going on. This particular study, by the way, was funded by New England Health and the Australian Agricultural Health Unit and a very small amount of funding from New South Wales Health. Because of the problems in the community, and because one of our major roles in the Public Health Unit relates to advocacy – and we have been having a continual stream of complaints from people who perceive that their properties were being sprayed – we did a preliminary Rainwater Tank Pesticide Sampling Survey – Namoi Valley April-May 1996.

We found in that particular preliminary survey some fairly nasty sorts of chemicals, like dieldrin, which supposedly had not been used for a long time. We worked out that there were some major problems for people with fresh water tanks and not using first flush diverters. The dieldrin, DDT and chlordane were in the sludge. So on those particular issues we ran a huge publicity campaign about people monitoring and looking after their tanks. There was not conclusive evidence in the first rainwater tank pesticide survey that was related to current agricultural activity.

It was followed up in 1998 by the Gunnedah Pesticide in Raintank Survey. So far, we have only produced a preliminary summary of results. This was a joint Environment Protection Authority/New England Public Health program which we

funded. It did involve considerable testing costs, and the Environment Protection Authority very kindly supplied the labour for collecting the specimens.

This particular study again did not give any evidence that any levels of endosulfans in the tanks were at all dangerous or above the accepted national guidelines, but what we did find – which we found concerning – is that from 30 metres to 3,700 metres away from the closest possible agricultural spray there were trace elements of endosulfan. I reiterate that those were “trace elements”. There was no proven human risk to people, but there definitely had been drift across those areas.

There were five tanks in this particular study that were tested every week. They ranged from 30 metres to 800 away from the closest possible agricultural spraying. So I will leave the results of that study too, rather than go into the detail of it. But it was of concern to us.

The Public Health Unit has been involved in consultative processes with the shire council, the Environment Protection Authority, the Department of Agriculture, the Department of Urban Affairs and Planning, and certainly some private individuals and crop sprayers. So we have been very much involved in negotiating through best practice policy in this area, and we have been heavily involved with the Gunnedah Chemical Liaison Committee.

CHAIRMAN: You mentioned the traces that you found in the water tanks and the distances that those tanks were from the point source. Bob Meadley, the Director of Environmental Services at the Narromine Shire Council told the Committee yesterday that he did some similar tests and found chemicals up to 11 kilometres away – again, not at significant levels, but that the traces were there.

The Hon. J. R. JOHNSON: Doctor, you made reference to the adverse health effects register. Is that in operation?

Dr FRAGAR: No, it is not. There is no such register in operation in Australia. We at the Agricultural Health Unit designed a program, in association with two divisions of general practice, but we have not had the resources to go through with the implementation of that.

The Hon. J. R. JOHNSON: Are doctors, hospitals and health workers required to report to either you or the department on adverse health effects on individuals, children, adults or seniors, and are records kept of those effects?

Dr FRAGAR: There is no legal requirement for health workers to report on health effects of pesticides, unless under there is a suggestion of any criminal activity. On the other hand, doctors and those with responsibility for health services have a general professional requirement to report any matter of public concern to the Area Health Service, and that would be handled by its Public Health Unit and Environment Health section. But there is no special requirement regarding pesticides. That would be the same for any particular adverse health event that was being experienced.

The Hon. J. R. JOHNSON: I address this question to either you, Dr Fragar, or Mrs Robertson, who said there were continuous complaints about spraying. Do you keep a record of those continuous complaints that are being made, and is there any follow through?

Mrs ROBERTSON: There is a full record of every complaint that has been received by the New England Public Health Unit, kept in the Public Health Unit. We attempt to put them together to see if there is any particular pattern. Some people let us know immediately when they feel that an issue has occurred, and we follow that up as best we can.

We had a particular incident last season in Gunnedah, when inversion occurred across the town for half a day. We did everything we could in our ability, but of course the Pesticides Act belongs to the Environment Protection Authority, and we followed as far as we could to see what had occurred. There were no documented increases from that particular incident of people going to the doctor. But we have little or no ability to collect clinical information, except our normal epidemiological studies that we do on accident and emergency visits by people who might come in.

We have had a major problem with the surveillance program that was discussed earlier in relation to asthma, because we have problems getting the general practitioners to actually provide the information. But, basically, we do have the system going whereby we keep the complaints together, and we certainly contact the Environment Protection Authority immediately we find a complaint and we pass it on.

The Hon. J. R. JOHNSON: Does the Tamworth-Gunnedah basin have a higher incidence of respiratory or asthmatic sufferers than do other areas in the State?

Mrs ROBERTSON: We do, in general, than other areas of the State. But Wagga Wagga is another city that has the same problem, with ryegrass pollen, outbreaks of asthma and respiratory problems. So there are just a few basins that have this specific problem. But it is higher than the rest of the State.

The Hon. J. R. JOHNSON: Do you have a greater incidence of ryegrass here?

Mrs ROBERTSON: It is something to do with the inversion and the way that the pollens go up out on the western plain; and then the thunderstorms start to build up and the pollens break up in the upper atmosphere and then fall down on us as a very easily absorbed pollen. That is where the problem comes from.

The Hon. J. R. JOHNSON: Doctor, I think you made reference to looking at various chemicals or pesticides that may be licensed for use. Do you take cognisance of the fact that certain pesticides and chemicals have been taken off the list of useable products, prohibited or withdrawn in overseas countries but have not been withdrawn in Australia?

Dr FRAGAR: I personally and our Australian Centre for Agricultural Health and Safety does not have jurisdictional responsibility in that area. Our work mostly has

been to do with chemicals that are in use. And, where there has been a particular issue that we have investigated, we have been looking at exposure to that chemical in that setting – chemistry, exposure and so forth.

The Hon. J. R. JOHNSON: Have you heard of some types of products that had been in general use overseas or in the country of manufacture, or in countries in close proximity to the country of manufacture, where the product has been withdrawn but has not been withdrawn on a world-wide basis by the manufacturers?

Dr FRAGAR: It is my understanding that in Australia the submissions by chemical companies are considered on the basis of the information about usage requirements, and the effectiveness of dealing with a particular pest or whatever, and on the toxicological information that is available. That assessment is done by the Australian system. While the system of assessment has information about where a particular product may be registered, and why it may not be registered, Australia makes its own decisions.

The Hon. J. R. JOHNSON: But have you heard of products that are not permitted to be used overseas but that are permitted to be used here?

Dr FRAGAR: Yes. And also the reverse: where Australia has declined to register some chemicals or applied more stringent conditions than is the situation in other countries.

CHAIRMAN: Phosphine was banned for use for flies in sheep because it was arsenic-based, but it was still allowed to be used for vegetables.

The Hon. I. M. MACDONALD: Mrs Robertson, in view of the continuing albeit anecdotal allegations or evidence, or whatever you want to call it, stemming from this region, do you think there is a case for a more comprehensive health study to put to bed or allay the fears of local residents, to let them know that something is not going on that could be a problem to their health over time?

Mrs ROBERTSON: I think the issue relating to a study relates back to that map that Lyn put up earlier as an overhead. Doing a bit of a study on this very small population does not give us enough epidemiological evidence one way or the other. I think it has to be dealt with at a State or Australia-wide level. We should actually be requesting that the industry look at the best way for this study to be instituted, along with the academics.

I think, for a small unit like ours to be involved in such an enormous study, which requires so much empirical evidence, is just beyond our ability. I think what we took on was as much as we can take on. What we take on with checking what actually makes people sick, or what people in our area are dying of every year, is as much as we can commit ourselves to. But further research would be very valuable.

When this discussion came up at the meeting of experts early last year, or the year before, the biggest issue that came on the table was: Look how many millions of

dollars it took us to find out whether lead was causing a problem or not? Our problem is that we have not got evidence to prove whether there is a problem or not. Therefore, we have not the right to make decisions on this sort of issue.

The Hon. I. M. MACDONALD: But you are satisfied overall that at this point of time there is not the evidence to suggest that there is something dramatic going on in this region, compared to what is going on with the health of other people across the country?

Mrs ROBERTSON: There is no evidence world-wide on the long-term small-dose effects of pesticides. However, I would like to add that one of the major outcomes of the mediation process that occurred here in Gunnedah was that spray should stay where it was sprayed. What troubles us in the Public Health Unit is that we are still getting evidence that the spray is not staying where it is sprayed. So I will add that.

The Hon. I. M. MACDONALD: That was from complaints?

Mrs ROBERTSON: I think it was fairly conclusive that spray moved into Gunnedah this year. Certainly, the cotton industry was doing its best to find out exactly why that had happened. But it certainly was not acceptable from a public health point of view.

The Hon. I. COHEN: You mentioned an asthma study in 1991, but there was no clarity as to whether it was due to pesticides or ryegrass. Were people who had problems with asthma at that time blood tested for pesticide levels?

Mrs ROBERTSON: This study was very conclusively ryegrass. You can have a copy of the study, but I really do not want to go into the fine detail. What they did was recall everybody who was admitted to accident and emergency that night. The study was actually done in 1991. This particular phenomena occurs regularly, but it was done in 1991 because we had a very acute episode. All of the affected people were recalled and tested for allergies, and the empirical evidence of ryegrass influence was definitive. It was definitely ryegrass. I only mention because it makes it more difficult for us, if we are getting reports of higher levels of asthma in the Gunnedah basin, whenever that occurs we check whether it is equated with Tamworth, because Tamworth does not get affected by that. So far, each time that has happened, that has been the case. So it is just a checking device that we can use in the Public Health Unit. I don't think it would stand up in any sort of court. But it is all we have got.

The Hon. I. COHEN: Would it be recommended that there be comprehensive testing of pesticide levels in certain circumstances – perhaps not like the ryegrass outbreak – where people have those problems?

Mrs ROBERTSON: No, not within the public health system. Lyn might like to talk more on this because it is dealt with in the farm worker situation rather than as a general community.

Dr FRAGAR: There is a major problem if we try to look to blood testing or urine testing for the wider community not occupationally exposed, in that it takes a substantial amount of exposure to a chemical to find the measurable levels in body fluids. So, to pursue that as a means of confirming that a person was in some way affected by a pesticide or other agricultural or pesticide type of chemical would probably be very wasteful of resources and probably providing the sort of feedback to the concerned community that would be not in keeping in what can be delivered.

If we take the definition of “health” of the World Health Organisation, health is not just an absence of disease; health includes wellbeing. I think we have to be more prepared to accept that the wellbeing of people does not have to be measured by physiological and pathological testing. If people are saying that they are being affected in some way – with headaches, runny noses, asthma – in relation to an obvious smell from a chemical, then we have got to try to remove that smell.

If it were from a piggery or from another industry next door or whatever, we have mechanisms for planning to reduce exposure to noxious smells. I think that we need to be moving to a high level of control so that people are not affected in that. But, to try to make this into something that is measurable – and I don’t think Health is ever going to be able to come up with those sorts of concrete measurements – would be to pursue that I think we have neither the resources nor the technology at this stage to be able to do.

The Hon. I. COHEN: You mentioned before, in answer to a question from the Hon. John Johnson, that there was no national register to report health reactions related to pesticides. Does that mean that we have no way of really knowing how big the problem is? Or is there some way of directing resources to that?

Dr FRAGAR: I think we do need to direct resources to that, because we do not have a consistent way of doing that. What we do have are coronial records of deaths, which tend to be either use of agricultural chemicals for suicidal or intentional poisoning. There are very very few of those in Australia; you could count the number of those incidents over a few years on the one hand.

We have admissions to hospital for poisoning by agricultural chemicals. There are very few of those across any State, including New South Wales, and most of them tend to be related to child accidental exposures.

We have emergency department presentations, which again are not necessarily associated with the causal effect if you are looking at rhinitis, runny noses, and asthma. And then you have the Poisons Information Australian Centre, which receives calls from the public and from medical practitioners about what to do if they have been exposed to a particular poison, and that would include chemicals.

So, at the moment, those are the bodies that we go to to try to get information. On the other hand, there is anecdotal information about some chemicals having effects on some people in the workforce in particular, and we have no way of reporting that

through to the registration authority process. I think some form of adverse reporting would be really important for us to establish.

The Hon. I. COHEN: There was a report from the Total Environment Centre Toxic Chemicals Committee, released in 1987, which stated:

.....in 1981 over 500 people reported symptoms such as fatigue, headache and gastro-intestinal upset thought to be related to pesticides to Dr Cook, a local GP in Gunnedah. Dr Cook considered that these patients were suffering from.....chronic fatigue syndrome. However, after some investigation, the Department of Health at the time concluded the condition was one arising from neurosis, not pesticide exposure.

Do you have any knowledge of that period, and was it correct and reasonable to come up with that assessment, or would it be different now?

Dr FRAGAR: I have no information about that – unless that relates to the Gunnedah study you speak of.

The Hon. I. COHEN: It was in Gunnedah and in the Breeza Valley.

Mrs ROBERTSON: I would like to reinforce that, from the Public Health Unit's point of view, there has never been any inference of neurosis. We say that some people appear to be more affected by pesticides and that they have these symptoms because that is what the people tell us. There has never been any inference of neurosis.

There were a couple of crises episodes – I can't even remember what year it was, but about three or four years ago – when, under our public health responsibility, we had to get assistance from the mental health team. But at no time was there any inference that these persons were exhibiting neurosis.

I was really interested to hear that they produced a paper that said there were 500 people who reported those symptoms. Five hundred people coming forward with symptoms that you could actually prove would have been a very valuable study group. But that information about that 500 has not been shared by us. I seem to remember that we did see the paper from the Total Environment Centre.

The Hon. I. COHEN: There was a report by Verkerk in 1987. Are you not aware of that?

Mrs ROBERTSON: No. I have to rely on information, as Lyn says, that comes through the hospital system or through a surveillance system with doctors. We cannot use data like that.

The Hon. I. M. MACDONALD: Surely a study of that significance, if it existed, would have come to someone's attention in the network up here. Five hundred people is a lot of people.

Mrs ROBERTSON: I guess the issue is the credibility of the data collection. I cannot remember that study, and I do beg your pardon that I can't. I am sure that the Total Environment Centre sent it to us at some stage. I can hear people behind me getting angry, and I find that most unfortunate when we have put so much of our resources into trying to get information. But to have a doctor reporting 500 cases in a town of this size, without us getting involved in order to reinforce or prove that information, I find pretty unfortunate. I just want to reinforce that at no time through the public health system has there been an inference of neurosis.

CHAIRMAN: We are just about out of time. We have some questions that we will ask you to take on notice. You will get those in a copy of the transcript. Lyn, you mentioned horticulture as being another significant area related to cotton. Has sarcoidosis shown up much at all in those horticultural studies?

Dr FRAGAR: Not that we have looked for. As we have been examining the health of rural populations, the cancers that appear commonly for farm worker exposure are cancers of non-Hodgkin's lymphoma and cancer of the brain. That is international experience. Those are being examined by the Cancer Council of New South Wales.

The other one that is not commonly reported for agricultural Australia and for farmers in particular relates to higher incidence of deaths from cancer of the prostate and rectum. We have got to be very careful about looking at those death rates because they may relate to an increase incidence of the disease, or they may relate to a difference in whether people go to get treatment early, or late, or how doctors deal with that. So we have not teased out whether it is a higher incidence or a matter of management.

CHAIRMAN: I am pleased that you have been so heavily involved in the education process to protect farmers from themselves. I operated in a market garden for 35 years, and until five years ago when I bought my first tractor with a cabin and airconditioning, there were some 70 tractors in a market garden situation that did not even have rollbars and were continually misted with all sorts of herbicides and pesticides. These chemicals were being sprayed back over the operator all the time.

The reason I asked about sarcoidosis is that I know a number of the people driving those tractors ended up with that problem. So I am pleased that you are heavily involved in the education process to protect people from themselves. Thank you very much for your time here today.

Mrs ROBERTSON: Could I add one thing?

CHAIRMAN: Yes.

Mrs ROBERTSON: Throughout the entire process of working on this issue there has been very good communication between all the government departments and the local government and the community, that is, the community who perceive themselves as affected and the cotton farming community and the general community.

Within the last year, however, there has been a change to the structures of the Environment Protection Authority that I think is well worth mentioning.

It means that the Environment Protection Authority have placed two positions in Tamworth to deal with this issue. For some reason, our communication levels are not as good as they used to be, and I find that unfortunate. I think it would be very good if from this inquiry there came formal structures for local and State communication regarding this issue.

CHAIRMAN: Thank you for your excellent information and I am sure it will feature heavily in our report. I have a number of questions that I would ask you to take on notice. If you could give us your answers to those questions as soon as possible, that would be appreciated. Those questions are:

1. Are rural communities that are subjected to large-scale agricultural pesticide application statistically more susceptible to health problems?
2. What approaches have been taken by health departments in other States or overseas to protect the health of the community from pesticides?
3. Can you identify the pesticides that are providing the greater health concerns for the community?
4. What is your organisation's view on the existence and prevalence of multiple chemical sensitivity?

(The witnesses withdrew)

(Evidence continued in private)

PETER JOHN MIDDLEBROOK, Manager/Owner, Middlebrook Air Services Pty Ltd, of "Pullaming", Gunnedah, sworn and examined:

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

Mr MIDDLEBROOK: As the Manager of Middlebrook Air Services.

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

Mr MIDDLEBROOK: I did.

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

Mr MIDDLEBROOK: 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. However, I should warn you that Parliament has the right to override the Committee's decision and make your evidence public.

Mr MIDDLEBROOK: I would like to give my evidence in private, if I could, with the help of my secretary.

CHAIRMAN: Mr Middlebrook has requested that his evidence be taken in private, which is different from in camera in that it means that the evidence will become public later, but the room has to be cleared while this evidence is taken by the Committee in private. Taking the evidence in that way allows it to be part of the public record and available after.

Mr MIDDLEBROOK: I would like to give something of a preamble or introduction to who we are. The Middlebrook Air Services airstrip is located 13 kilometres from Cowal. The business is a small private company incorporated in 1977. The prime function is the service of aerial agriculture. Middlebrook Air Services has seen large changes in its 22 years of being in business. I purchased the spraying side of the old Air Farm Associates in Tamworth in 1981. That is when wheat was the biggest part of the business. We used to spray something like 100,000 acres of wheat back in those days.

Then insect control in sorghum took over in 1981-82, and cotton first started being planted around here in 1982. Our base today was just a grass airstrip and a truck used to come along and load the aeroplane. We have built that into an Environment Protection Authority accepted loading facility which is quite comprehensive. In the

past six years our business has changed dramatically from small piston-engine aeroplanes. We had seven or eight aeroplanes to do the same job that two or three do now. I will explain later why we did that.

We have been a member of the Aerial Agricultural Association of Australia since 1992, being an accredited operator. We fly approximately 2,000 to 3,000 hours a year, depending on the frequency of the season. Some seasons are bigger than others. The area that we cover is Gunnedah, Quirindi, Tamworth. Basically, we do not have any ambitions to go further afield because we started this as a family business to provide food for the table, and we are not interested in empire building. We employ four full-time pilots, including myself, and three full-time ground crew and three in the office. One of the pilots is my son. Judy, who is my wife, and my oldest son work in the office along with Carline.

We realised in 1992 that we had to get better or get out, because aerial spraying, as we are all aware, has been a hot potato for a long time – the old cowboy image and that sort of thing. I never ever believed that I was a cowboy but, through ignorance, I should say by going off the label on the chemical drum and applying it how they wanted it applied, was not necessarily the thing that the public wanted, and then there was this over-the-fence thing. So we decided that we had better get into the accreditation system and do it better.

We used to get, and still do get, Gatton University in to calibrate our aeroplanes. We have changed our style of spraying to be totally different. We use the weather to our advantage, not to our disadvantage. At this stage we have four turbine aeroplanes doing what we used to do with two – simply so that it can be timely, about the weather condition, and to put the product on so that it is not affecting anyone over the fence – unlike we have heard from a few people under oath here today.

We only employ pilots that are Spraysafe accredited and with above average qualifications. They are becoming very hard to get, especially in a little outfit like ours. They will gravitate to the big places out west, where there are less contentious issues – or, at least, there used to be. So we get the young fellows, train them, and they are ours for three years before they go anywhere else and they learn our system.

We purchased global positioning satellite marking systems in 1994, and we were actually the first company to buy those global positioning satellite marking systems for spray application. That has been just a remarkable bit of gear. We have got rid of human markers out of the paddocks, so that we have no problem with contaminating people while we are spraying. It has a downloading system that records where you are every two seconds, and that comes out on a print, which I have copies of here.

We use anaerobic microbes to break down the flush-out water systems that we have and to neutralise the chemical waste. We had the first turbine-powered aircraft in the Liverpool Plains. The reason that we did that was that it was taking us up to 12 hours to do 2,000 acres with one of the older types of aeroplanes. The same aeroplane

does the same work in two hours, which is all about timeliness – to get it done when the conditions are right.

CHAIRMAN: And in the right wind conditions.

Mr MIDDLEBROOK: Yes. We travelled to the United States to undergo specialised training. Some of that was excellent, but I can tell you that what I saw in the United States and what has happened here in the last three or four years does not match. I think we far exceed what they are doing over there and what they are expected to do.

All of our staff participate in specialised courses, depending on their position, in dangerous goods, et cetera, as well Avco chemical handling. We assist local government departments with research on what is grown where and all that sort of thing. We think that we run a fairly tidy business at this stage, and we are striving to improve that all the time. As technology comes on board, if it suits our area, we take it on board. That is Middlebrook Air Services.

CHAIRMAN: The global positioning satellite marking system allows you to spray within a metre, doesn't it?

Mr MIDDLEBROOK: Yes, within 25 centimetres. The pilot is the only governing factor there; the machine is more accurate than the pilot. We say a metre, but it will position you within 25 centimetres on the earth's surface.

CHAIRMAN: That is what has enabled you to get rid of the human markers.

Mr MIDDLEBROOK: Yes. As you can understand, we have a lot of small areas here, as compared to out west, so that we did not have marking crews; we had farmers and their workers marking for us. The global positioning satellite system alleviated that problem. There still has to be someone on the farm when we spray.

CHAIRMAN: Are you in contact with that particular person?

Mr MIDDLEBROOK: Yes, by UHF radio.

CHAIRMAN: When you say you exceed the USA standards, is that your company personally or in general?

Mr MIDDLEBROOK: No, not in general in Australian aviation. I believe that what we do and with what we have in place – and there may be other areas in the States that I did not see that do what we do – but we have a very comprehensive system to get a spray order activated in the system and then get the job done.

CHAIRMAN: One of the proposals is that the new legislation is to do with contributory negligence or share negligence. It has been explained to us by the Environment Protection Authority that one of the reasons that should be in the

legislation is that the farmer may be negligent in some circumstances as well as the spray operator. The reason that the Environment Protection Authority suggest that provision should be in the legislation is that not all the cowboys are necessarily in the aeroplanes but farmers might ask pilot A to fly in certain conditions and apply certain chemicals, and pilot A might say, "No, that is not according to the guidelines." So the farmer will go to another operator and eventually they will find someone who will do it. Have you got any comments on that shared liability? Also, have you had a bit of pressure put on you from time to time?

Mr MIDDLEBROOK: That has virtually disappeared in our area. That used to be a very big problem in the 1992 to 1995 era. We actually went on strike with the cotton industry of Australia and said, "We are not going to do a job that we deem will affect somebody else in this area, unless you stand wholeheartedly behind us on what we have been asked to do." What was happening is exactly what you were saying: We will get somebody else, or we will do this or do that. We would say, "No, the weather is wrong, or we can't spray because of inversions in this valley."

It is very rare that you don't have an inversion in this valley overnight and early in the morning. That is why we have gone to four aeroplanes. We normally don't start before 8 o'clock in the morning, and everywhere else is going all night and all day, so that we can get the work done by 12 o'clock, when it gets too warm. The farmers fell into line – especially the cotton farmers, and we are now getting the broadacre growers in a very similar train of thought. That is great. I didn't think it would happen, because some of them are bits of old rogues and say, "Oh, put the bloody stuff on. Don't worry about his sunflowers, or the house downwind." Could I show you an order form?

CHAIRMAN: Yes. Have you got one that you can table?

Mr MIDDLEBROOK: Yes. You can have any of this material. I can put it up on the overhead.

CHAIRMAN: While you are adjusting that, there was one other question I wanted to ask you, and that is about helicopters. I know it is a difficult question for you to answer, but do you believe the helicopters would have more or less spray problems?

Mr MIDDLEBROOK: It depends on how they are configured. We have some very good operators. The helicopter is a confined-air aeroplane. It is no different from an aeroplane, except it can get into a confined area much easier than we can. At 120 knots, you have to go over and down. A lot of the work that we used to do round rivers and stock routes and what not has been given to the helicopter because we don't want the problem of contaminating a stock route or river.

An aeroplane would do that if you dived in over trees and what not. So we have given that work to helicopters. There are a couple of operators that are very very good, but there are a few who have not conformed with technology. They are still mixmasters; they spread it everywhere.

The ultra low volume (ULV) spray is very difficult to control. Because of the confined areas, the number of neighbours that we have, ultra low volume spraying is very difficult to control in a confined area. It is different with 20,000 acres – and I question that too. This is something that the chemical companies lumbered onto the scene back in the sixties as an efficient way of spraying. They were not concerned about who was downwind, who was smelling it and swallowing it. It is like that Curacrom smell that came into town. We were not involved in that at all; a guy with a ground rig went out and sprayed in an absolute inversion.

The Hon. I. COHEN: When was that?

Mr MIDDLEBROOK: Last January, I think.

CHAIRMAN: It was the one that Christine Robertson told us about.

Mr MIDDLEBROOK: The stink of the stuff! It is a terribly smelly chemical, and it just oozed down the valley.

CHAIRMAN: So that was basically from one ground rig operator?

Mr MIDDLEBROOK: There were three rigs involved. Suddenly, they come back to us – and we hadn't even started an engine because of those conditions that morning. In the last 10 years that has happened quite a few times. Before we do a job the client rings us up, and we say okay, and he faxes a request form. I will go back one step further.

Before the season starts for cotton we go and look at the cotton farm and get the neighbours – and there are only two or three neighbours here that won't stand at the fence and talk about it any more – to agree that, yes or no, that is how we will do it, or whatever. They come to a handshake over the fence that that is how they will do it. We must know the client's name, the farm, the order number, the date of the order, the date required.

The date required is a very flexible thing because if the weather is not right on that day it won't be done. This is one of the big turnarounds in the last three or four years – convincing people not to go ahead and do it when it will affect someone downwind. Now we have several customers which, on odd occasions, wait up to three and four days to get an application done because the weather conditions are not right.

The Hon. J. R. JOHNSON: Does that have a deleterious effect on the crop?

Mr MIDDLEBROOK: It does. It has been a very big problem, because you get bigger insects and you have got to use more chemical, and it snowballs. Then they have a loss effect, which might be 0.2 per cent each time. The form has the information “ordered by”, “contact” “phone number/fax” and his UHF number, which is very important.

Then we ask are there chippers or workers in the field so that they can be notified of what is going on, yes or no. If they say no there, then we have to ring up and say, "Is there anyone in the paddock and who is going to supervise this?" Then immediate neighbours, advise as per the guidelines, any considerations as to dwellings and buffer zones. Buffer zones include a school bus, and what time it goes past there. We usually give it an hour each way. If a bus is going on the Breeza Road at 8 o'clock we don't do anything within a kilometre of the road while the bus is going down that road.

CHAIRMAN: Do you think three minutes is a bit fine?

Mr MIDDLEBROOK: Yes, I think so. The bus could be three minutes early too.

CHAIRMAN: It was.

Mr MIDDLEBROOK: What crop it is, then the field numbers, and the chemical to be used, use rate, and supplier. Down the bottom is additional information, and it has to be signed by the person who puts it in.

CHAIRMAN: Just going back to the school bus situation: you basically give the bus about an hour, and you also keep a kilometre off the route?

Mr MIDDLEBROOK: We try to achieve that, or go right away – get out of the area. That is what happens on my own place, but I have just got that to show you. That is the work order given to the pilot. It has got the UHF number, the type of crop to be sprayed, the volume carried, any hazards – and the hazards there include the Mooki River. We don't do anything closer than 500 metres to the river; or, if the breeze is blowing away, we can go to the edge. However, if the breeze is blowing towards the river, we just don't do it.

Then, as the pilot does the job, he fills in the date, the aircraft, the tacho start, tacho stop, take off/landing, fields treated, swathe used – that is, the width of the aeroplane treatment lane – and the dispersal equipment that he used, which would be CP nozzles or hydraulic nozzles, and the droplet size. Now, that depends on what equipment you use. Micronaires, which we use for ultra low volume application, crack the stuff up into small, fairly unmanageable droplets. So that is why we don't like doing ultra low volume.

Drift control. Now, what steps do we take with drift control? Well, I have just told you what we do. If the wind is blowing towards the river, or a house, or neighbouring crops or whatever, we don't do it. The other thing is that if the wind is blowing towards a neighbour's property, we may just do that part of that block, to get ourselves at least 500 metres away, and then wait until the breeze comes from here somewhere and then go closer. That has been at great cost to our business; it is going back, and it is quite tedious really. But it is satisfying at the end of the time when you

get very few rocks thrown at you. So that is the pilot's record that he fills out on completion.

This next slide is the record that is kept back at the base – your precheck that everything is set up right on aeroplane before you leave; all the mobile numbers and the UHF check numbers, and so on; the product used; who loaded it, so that we have a check back if something did happen to get into the wrong place at the wrong time, so that we will know exactly why it happened and who did it; and all the other area such as suppliers and so on.

CHAIRMAN: No wonder you have got a staff member in the office for every pilot.

Mr MIDDLEBROOK: Yes, we have. But, unfortunately, that is the way it has had to be.

CHAIRMAN: Do insurance companies take that into account in setting the rate of insurance?

Mr MIDDLEBROOK: Our insurance is the same as everyone else's.

CHAIRMAN: Is that right?

Mr MIDDLEBROOK: Yes. It's nice not to have a claim. This is one of many weather stations that we have around the district. We have our chill factors and our ambient temperatures, wind direction, wind speed. This comes from the Breeza weather station, and that is at 10.40. That gives the annual rainfall to date; that is the wind speed; that is the direction; that is the temperature; and that is the chill factor.

Before we go into that area with work, we dial that up, get that information out of it, and put it back into the pilot's hands, so that he has a record, so that if he gets down there and it has changed he can call us up and say, "It has changed," so that we can go back in again and say that is different, and he can pull out straight away. That is the satellite map. Not all global positioning satellite marking systems have this.

CHAIRMAN: This is a tracking of where your aeroplane has been?

Mr MIDDLEBROOK: Yes.

CHAIRMAN: Where you have turned too.

Mr MIDDLEBROOK: Yes. Since we got this the complaints lowered by 80 per cent, because we could prove that is where we were, and we could say that that was a vexatious complaint. Before that, we had to go through every complaint and justify.

The Hon. I. M. MACDONALD: So the red is where the chemical is applied?

Mr MIDDLEBROOK: That is right.

Mr MIDDLEBROOK: On the edges of the map is probably the only bit that is little bit suspect. It is updated every two seconds. The GPS system on the marking updates 12 times per second, but you never have enough memory or paper to print 12 of those little dots per second. So, everywhere the aeroplane went is marked: the red is where it applied the chemical, and the red there is where he has trimmed up the edges, because there may have been trees or something like that; and the green is where he went on the turn.

You can change anything on that map that you want to except those little dots, which always remain on that point on the earth, regardless. What I mean is that, if there is a road there, you can change that road on the computer but you cannot change the dot; it still will be at 30° 51" east, by 150°, and it will always remain on that spot. We have several people who have come along and said, "You have falsified the records," or, "You have changed them," but there is no physical way we can do that. We can change the map to make it look like anything we want to, but those dots, if you put your cursor on that one there, will remain in the same position on the face of the earth, which is great and very comforting. That concludes the presentation.

CHAIRMAN: How much did the GPS system cost you?

Mr MIDDLEBROOK: The first one cost \$50,000, with a program; the next one cost us \$30,000. We have got six of them, and they have all been between \$28,000 and \$30,000, but that is because the software is already in place for the printouts.

CHAIRMAN: I would have thought your insurance company would have given you some discount for that. It is a bit like carrying a fire extinguisher in your car and getting a 10 per cent discount

Mr MIDDLEBROOK: We were hoping it would help.

The Hon. I. M. MACDONALD: Do other companies have this equipment and these regimes in place?

Mr MIDDLEBROOK: There are quite a few that I frequent that do have it. Of course, doing one thing and saying another is another thing, isn't it? A lot of people really have not come to grips with it. They have got the fluffy stuff, and they will tell you all about it, but actually transferring that to a job and using that in practice is another thing. I don't think there is 100 per cent compliance in that respect.

The Hon. I. M. MACDONALD: The reason I asked is that over the luncheon adjournment today we visited a farm which was surrounded by cotton growers. There were substantial criticisms made that they are getting a lot of drift over their property. It struck me that if you were using this technology correctly, it should be minimising that problem.

Mr MIDDLEBROOK: Exactly. That farm that you visited goes back to an age-old problem between neighbours. The farm was supposed to be left to Len, and it wasn't; it was left to the other boys to share farm, and Len never got over it. We have been the applicator there for nine or ten years probably, and I can tell you now that any of the contamination that is on that farm – which is very little, and you should get him to show you a figure – did not come off our aeroplanes. There are helicopters doing around the edges because we didn't want to do that; we did not want to have to stand up and face him every day of the week whingeing and complaining to the Environment Protection Authority.

Every time the Environment Protection Authority comes to us, it ties up two of us for three or four days, and maybe longer, until they get all the facts and everything. We never go there unless the wind is exactly right and it won't affect him. I thought that he was very naughty in saying that things haven't improved in the last nine years, because in the last four years we have more than gone out of our way to make sure that there is no trespassing of any sort on there.

About three years ago the helicopter was spraying Predator along the boundary in a wind that was blowing straight towards Len. I went back there the next day, when the wind had changed around, and 500 metres from the road I was with the wind blowing away, and he went out of his way to prove that I had put the stuff on his paddock. It has been an absolute nightmare for our family and business that one particular man. I don't want to start off on that.

The Hon. I. M. MACDONALD: What about the trees?

Mr MIDDLEBROOK: It was a government tree pathologist who went out there and checked the trees and gave a verdict on it. It is an ageing population of trees, and maybe the surface water has been taken by irrigation, not by spray drift. That was another breach of the truth this morning. It wasn't aerial spraying that did that. The tree pathologist said that they are sick from age and lack of water.

The Hon. J. R. JOHNSON: But it is not peculiar to that property, is it?

Mr MIDDLEBROOK: No. It is happening all through the Namoi Valley – because nobody is planting trees, and stock and spraying, whether be at ground level or whatever, is probably knocking out the little trees. Grazing has just a big a share of responsibility as people going through and spraying their pasture with MCPA or something like that to keep the weeds out of it, and it is killing the little trees.

CHAIRMAN: We will get that report from the Department of Land and Water Conservation.

The Hon. J. R. JOHNSON: Are there any accidents in your particular business?

Mr MIDDLEBROOK: Accidents as in crashes, or accidents otherwise?

The Hon. J. R. JOHNSON: As in crashes.

Mr MIDDLEBROOK: We have had one wire strike in the last three years, off the top of my head.

The Hon. I. M. MACDONALD: But not a crash?

Mr MIDDLEBROOK: No. In 1989, when we were operating these little aeroplanes, we had a disastrous year. We were spreading fertiliser, not spraying, and we lost three pilots and five aeroplanes in 15 months. That was under the old system. This is part of the awakening that we have got to get better and we have got to do it properly. Pilots were working long hours in these little aeroplanes, trying to get productivity. Farmers were saying, "Do it now or we will get someone else in." All of those things were happening. I guess we had to mature from that.

CHAIRMAN: And you jacked up on them?

Mr MIDDLEBROOK: Yes.

The Hon. J. R. JOHNSON: Was there any illness associated with your industry?

Mr MIDDLEBROOK: I feel okay. I don't know what I look like to other people, whether I am different or not.

The Hon. J. R. JOHNSON: But your other workers as well?

Mr MIDDLEBROOK: No. We have not had any of that.

The Hon. J. R. JOHNSON: Do they wear any protective clothing?

Mr MIDDLEBROOK: We wear our overalls and gloves and face masks when they are tipping chemical and that sort of thing. But it is all about cleanliness and hygiene. If you go to the toilet and don't wash your hands afterwards, you're going to get sick, aren't you? We are in a very dangerous industry, so we have to be clean and tidy about it all. If someone is caught doing the wrong thing, then they really cannot work in our industry. It is as simple as that.

The Hon. J. R. JOHNSON: Do you supply the product to be applied, or does the owner of the property make arrangements for that to be delivered to you at a certain place for you to apply and he is billed for it?

Mr MIDDLEBROOK: The latter is correct.

CHAIRMAN: On the advice of agronomist.

Mr MIDDLEBROOK: Yes. We only do work for an agronomist who says, "That has got to happen." We don't say, "Oh, you need a litre of this on that," or so on. We don't want to be tied into that, and we don't want to be tied into chemical sales, because we are in the business of application only, and if that doesn't pay our wages then we won't be in it.

CHAIRMAN: The contributory negligence is actually a three-way equation: it is not just the aerial applicator, but the farmer, the agronomist. They could all be negligent dependent on the circumstances.

The Hon. I. COHEN: Another person, not Len Sanders, said that she witnessed your application in about February spraying in high wind. Would you care to comment on that? What is the limitation, and are there any rules or regulations about that?

Mr MIDDLEBROOK: There are limitations regarding wind, and those limitations on wind, when it is blowing away from Len's place, will probably be taken just a couple of knots further so that we can get the job done and so that it is away from his place.

The Hon. I. COHEN: Isn't it the case that in that particular area you were spraying towards Len's place or that you were spraying towards the town?

Mr MIDDLEBROOK: No. That is wrong. The predominant wind in this valley is a south-easterly. If you go to work too early, you will have a backing effect. Up here, about 100 feet off the ground, it is a south-easterly. But what happens, through friction and gradient wind, it will be backing. So, if you are going to have a catastrophe on Len's place, you will be spraying with a south-easterly howling and a backing wind. That takes place between about 5 in the morning, just before daylight, until probably about 8 o'clock. This is generalising; it is not every day. The complaint in February was that we were putting out ---

The Hon. I. COHEN: It was not from him, I might add.

Mr MIDDLEBROOK: No. It was that we were putting out urea, which is a fertiliser, Prill fertiliser. We have got that well documented.

The Hon. I. COHEN: In terms of your duty to notify neighbours, if your neighbour objects how much weight does that have?

Mr MIDDLEBROOK: That is up to the grower. All we can do is ask whether he has notified his neighbour, and he puts on the work record that yes he has or no he has not. In the case of Len, he won't meet with us and talk to us. So, what do you do? Do you jeopardise the man with 2,000 acres of work next door? All we can do is stick to the framework of doing it properly so as not to subject him to any problems.

The Hon. I. COHEN: There has been a litany of complaints relating to chemical trespass, cancers, et cetera, in this area. Do you have an opinion on that?

Mr MIDDLEBROOK: My opinion is that chemical, as I see and know of it, is dangerous. It is very, very dangerous. For me to have an opinion: of course, if you sat with your finger in whatever chemical for too long, you would absorb it. But every person may have a different reaction. I have been living, sitting, smelling the stuff since 1970. At this stage I have not had a problem from chemicals. But my dad died of a melanoma at 62, so if I have that genetic trait and I die of a melanoma about then they will probably say of me, "Oh, it was the chemical he was using!" I am not qualified to have an opinion on that. I believe that anything that I use, if the National Registration Authority has done its job and given me the correct way to apply it, then that is 70 per cent of the way to doing it properly. Then it is up to me to fulfil my responsibility not to affect anyone else.

The Hon. I. COHEN: A previous witness talked about wind socks and all sorts of data. Is that sufficient to do the job well enough of monitoring positions so that you get it right?

Mr MIDDLEBROOK: I have an opinion on this. The weather is our worst enemy, and it is also our biggest tool to use when it is correct. All the wind socks under the sun will not necessarily be the best thing for us. That appeases the man driving along the road, who might say, "Oh, yes, it's a south-easterly" when we are doing the job; or it appeases the fellow at his house who walks out the back door and sees the breeze is pointing away from his house.

The pilots that operate the aeroplanes – and this would be in general – always know where the wind is coming from. The use of smoke generators has been reversed and thrown back at us. When we put smoke up to determine which way the wind is going, if we are a little bit left of the track we always tend to say, "Look at the drift" when it is only the smoke. Of course, that gets in the media, saying, "He has put drift everywhere," when all it was was someone going down a fence line and putting the smoke out to see where it was going to go. Next thing, we have got the Environment Protection Authority there saying, "What did you do at 11 o'clock on whatever day?" That has become very prevalent.

Over the other side of town about two years ago there were two aeroplanes working from a strip a long way away. They were not our aeroplanes. One fellow called the other and said, "Where are you?" He said, "I've just let a bit of smoke go, and I'll tell you where I am." These are aeroplanes at 1,500 feet. Someone on the ground saw it and said that the aeroplanes were dumping chemical all over the countryside when all it was was an identification thing. So we are very, very apprehensive about using the tool of smoke generation at the moment.

The Hon. I. COHEN: You are confident that you are working in line with your expertise and with the latest equipment and that you are not undertaking chemical trespass?

Mr MIDDLEBROOK: I am confident, barring accidents, yes.

The Hon. I. COHEN: Sure. But, in your general run of work, with your knowledge and with the equipment that you have got now.

Mr MIDDLEBROOK: Yes. I could honestly say that we go to work not to put it over the fence.

The Hon. I. COHEN: I appreciate that. But what is the reality?

Mr MIDDLEBROOK: I am confident that we are not putting anything into the environment more than the MRLs stated in the World Health Organisation guidelines. Last year, which was a large year for us, we applied I think 300,000 hectares in this valley. We had two complaints of any consequence in that time. Out of that 300,000 hectares, which is a fair bit of country, believe it or not, cotton was less than a third of our application. Yet with those two complaints the complications came from neighbours around cotton.

We had some people out here who put in 76 complaints to the Environment Protection Authority hot line. Since they have left, there has not been one. So some people get hell-bent on complaints even though there is nothing happening out there. They were 3 kilometres from a cotton field and we were very, very careful which way the wind was blowing when we went out there, smell-wise and what not. So, out of that 300,000 hectares, some 100,000 hectares of it is cotton. So there is a lot of other spraying and application going on out there. That might be urea and fertilisers, trace elements, and all that sort of thing.

CHAIRMAN: What percentage of operators do you think would have your sorts of controls?

Mr MIDDLEBROOK: I would say there are probably 60 per cent.

CHAIRMAN: Sixty per cent operate the way that you do?

Mr MIDDLEBROOK: Well, so I am told.

CHAIRMAN: Roughly though?

Mr MIDDLEBROOK: Yes. You would have to go and watch the operation to get that accurately.

CHAIRMAN: But, just by your rule of thumb guess.

Mr MIDDLEBROOK: I would say it is a lot more than half, yes.

The Hon. I. M. MACDONALD: What happened to the two substantial complaints?

Mr MIDDLEBROOK: We were spraying a field out at Revigne and there were some chippers upwind 250 metres from the paddock. It was a new fellow who had come in to help us. We had given him all the training that we could, and told him if there is anyone within a kilometre of the paddock, apart from the fellow observing, don't go there. And he sprayed the paddock, and he was turning over these chippers who were hidden in behind some trees and what not – he reckoned he didn't see them, but I doubt that – and they went to the Environment Protection Authority and said they were contaminated and so on. That is still under investigation. But there has not been any problem with those people. I think the fact that the aeroplane flew over the top looked like an easy dollar.

CHAIRMAN: He wasn't sprayed, I take it?

Mr MIDDLEBROOK: No.

CHAIRMAN: There are some questions that we would ask you to take on notice. They will be included in the transcript of your evidence. If you would get your answers back to us as soon as possible, that would be appreciated. Those questions are:

1. *What is your view with respect to section 4.4 of the Environment Protection Authority's discussion paper, which raises the issue of shared liability for those involved in misuse of pesticides?*
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. *Can you expand upon the comments made in your submission opposing any devolution of power from the Minister for the Environment to the New South Wales Environment Protection Authority for actions such as commencing prosecutions?*
4. *Would the proposals outlined in the Environment Protection Authority's discussion paper have any financial impact on the viability of your organisation?*
5. *Are there any areas in the licensing, training and education of operators in the pesticide application industry that may need to be addressed?*
6. *What is your view as to the appropriateness of allowing pesticides to be applied at lower than recommended dosage rates?*
7. *For the purposes of licensing all users of pesticides, what is your view on the registering of chemical users at the point of sale?*

8. *Are there any areas not addressed in the Environment Protection Authority's discussion paper that you believe should be considered in a review of the Pesticides Act 1978?*

(The witness withdrew)

(Conclusion of evidence in private)

(Public hearing resumed)

GEOFFREY JAMES MARSHALL, Mayor, Gunnedah Shire Council, of “Springfields” Curlewis,

MAXWELL JOHN KERSHAW, General Manager, Gunnedah Shire Council, of 71 Lincoln Street, Gunnedah, and

MICHAEL JOHN SILVER, Manager, Environment and Development, Gunnedah Shire Council, of 32 Baxter Street, Gunnedah, sworn and examined:

CHAIRMAN: Cr Marshall, in what capacity are you appearing before the Committee?

Cr MARSHALL: As the Mayor of Gunnedah Shire Council.

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

Mr KERSHAW: As General Manager of Gunnedah Shire Council.

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

Mr SILVER: As an officer of Gunnedah Shire Council.

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

ALL WITNESSES: Yes.

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

ALL WITNESSES: Yes.

CHAIRMAN: If any 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. However, I should warn you that Parliament reserves the right to overturn the Committee’s decision and make your evidence public. Would you like to make a short statement before members of the Committee ask you some questions?

Cr MARSHALL: Firstly, I would like to thank the Committee for the opportunity to address this inquiry. Council has a great interest in the matter and sees the need to be involved in this process. It is fairly obvious that ours is a rural shire that is reliant on agricultural production, and part of that agricultural production process is the responsible use of agricultural chemicals, or pesticides as you have referred to them today. That broad interpretation includes, as term them, pesticides, herbicides and

rodenticides, et cetera. That is the direction that we take in the statement that we will be putting forward, but in addition we will be offering some options. I will work through the statement.

Agriculture is the largest industry operating in the Gunnedah shire area, employing almost 1,000 people directly. This employment is based on 539 establishments with agricultural activity occupying an area of 410,000 hectares within the shire area of 5,000 square kilometres.

Gunnedah is a truly diverse agricultural area supporting both winter and summer cropping, cattle, sheep and pigs. Wheat is still the most widely grown crop, with sorghum, barley and sunflowers also being significant. The gross value of agricultural commodities produced in the district is \$128 million annually.

Cotton is now second to wheat in terms of area cropped, with 18,110 hectares. There are several reasons of the expansion of cotton to the upper portion of the Namoi Valley over the last ten years, in particular the development of new varieties, with shorter growing seasons capable of producing higher yields, and that combined with the drop in commodity prices of traditional crops, has forced farmers to diversify their cropping operations. The potential for further increases in cotton are good, although the number of hectares grown will vary with prices and changes in the market. That is what we see will happen in the next twelve months.

The number of properties growing cotton in the Gunnedah local government area in 1997 was 115. Currently, 64 per cent of cotton is grown by irrigated means, with the balance by dryland farming. But that does not necessarily reflect the areas grown. With the average yield for irrigated cotton being seven bales per hectare and 2.6 bales for dryland, the estimated gross value of cotton production based on a return of \$475 per bale is \$46.6 million, or one-third of the district's gross agricultural return.

It is estimated that an average of the 95 per cent of cotton from the Gunnedah district is exported. Similarly, 90 per cent of durum wheat and 60 per cent of bread wheat is sold off shore. The agricultural chemical industry is a significant part of the agricultural infrastructure within the Gunnedah district having regard to all levels of agriculture. It is estimated that its overall value is of the order of \$40 million annually, with cotton production representing approximately \$13 million annually.

With the ever increasing need for improvements in productivity and the fluctuations in agricultural markets, there has been a significant move to a more commercial approach to agricultural production. This has led to intensive methods of product development, with a focus on more effective resource utilisation. Clearly, the principal resource in this regard as far as cropping is concerned is water and its availability. As a consequence, capital intensive irrigation properties have developed, with a view to increasing production at sustainable levels and providing a more significant return on investment.

In this respect, the region has seen a more corporate approach to farming and, in some instances, a move away from the traditional family farm. Given the extent of

capital investment, there is a need to establish crops that provide adequate return on investment. As a consequence, the investment – the crop – must be protected in order to secure that return.

Greater capital investment and a shift from traditional cropping types to those of a more intensive nature have led to impacts on neighbours from the use of agricultural chemicals. These impacts are extremely broad and cover issues from farming methodology, health and lifestyle, to chemical usage, to chemical application methods, to water usage and resource allocation, to economic considerations, to environmental matters and the right to farm.

Some changes have been driven by environmental issues, such as conservation tillage. The positive aspect is the retention of topsoil longevity and fertility of the soil profile. On the down side, the move to non-volatile herbicides has led to weed resistance and a resultant higher chemical load, with potential soil contamination.

The total number of persons employed in the Gunnedah shire area is 5,009, supporting a total population of 12,800. Agriculture represents 19 per cent of the workforce, second only to wholesale and retail with 22 per cent. Manufacturing is third with 11 per cent of the employment numbers. It is therefore reasonable to assume that a considerable amount of the wholesale and retail and manufacturing employment is directly reliant on the level of agriculture within the immediate area.

Taking this a step further, a study by Powell and Chalmer in 1995 into the cotton industry in the MacIntyre and Gwydir Valleys found an employment multiplier of 2.2:1. Accordingly, if this multiplier is relevant overall to agriculture, 2,256 jobs or 45 per cent of the total Gunnedah workforce, have a dependent on agricultural activities. When consideration is given to 73 per cent of the workforce being in the private sector, it can be seen that agriculture is critical to the maintenance of private enterprise within our region and the very lifeblood of the district's economy.

I now turn to issues of concern and the history. The development of intensive irrigation agriculture into the upper Namoi catchment over the past ten to fifteen years has clearly changed the approach at all levels of agriculture. Government and community approaches to international competitiveness, combined with technological changes, has placed greater pressure on the farming community to become more competitive and, as a result, more productive from the investment resources available to the farming sector.

The search for crops delivering greater returns has seen levels of irrigated cropping increase and new crops emerge, such as cotton and intensive vegetables. Given the level of investment and potential returns with such crops, the farmer is extremely protective of his product to ensure that it reaches its peak potential. Accordingly, the use of agricultural herbicides and pesticides has become critical to the maintenance and protection of the crop. This change in approach to farming practices has caused distress and concern amongst various sections of the community. It is reasonable to suggest that, in the past, application of agricultural chemicals was in certain instances not carried out with due regard to neighbours or the environment.

I now wish to speak about the Gunnedah Chemical Liaison Committee. In 1995, as a consequence of the level of community concern, council assisted in the establishment of the Gunnedah Chemical Liaison Committee. Initially operating as a committee of council, the group brought together representatives of all sectors involved in the agricultural chemical debate.

The committee is now a separate incorporated community organisation. Council saw the need to involve all parties, particularly environmental groups, in order to reach a balanced judgment on issues of concern relating to pesticides and pesticide application. Unfortunately, the role of the committee has been questioned at times, and this ultimately led to a State government sponsored mediation process in 1997.

The final outcomes of the mediation process have been questioned. However, the broad thrust of the community-based group providing education, arbitration and conciliation services on matters of community concern has been most successful. It clearly reduces the level of expenditure by the State government on complaints pertaining to agricultural chemical use and providing the community with a mechanism for addressing its concerns at a local level.

Of concern to council is the New South Wales Government's lack of tangible acknowledgment of such a group's importance to the management of this issue. Council has been seeking and continues to seek an insignificant contribution of \$2,000 each from the Environment Protection Authority and the Department of Agriculture to support the Gunnedah Chemical Liaison Committee's annual administration expenses. However, this has been consistently declined. I might add that council was to make a similar contribution to make that operation viable.

It has been apparent that much of the community and individual anxiety over the last few years has been due to a poor understanding of the impacts of pesticide use from all quarters, with a consequent generation of distrust and anger. The selective use of information has fuelled this social impasse. It is therefore imperative that communication and education levels are improved and that government agencies promote clear and precise outcomes from investigative processes.

Best management practices incorporating community and neighbour education and notification procedures have been developed and established to meet this demand. Scepticism still exists over self-regulation. However, there is as much negativity regarding the effectiveness of a totally regulated system. Extreme difficulty has been experienced in validating complaints or for that matter the impacts after the event. This is demonstrated by the number of complaints and the number of complaints that proceed to a conviction.

There is a role for regulation. However, to meet community expectations and provide a workable solution, an acceptable balance interaction between best management practices and regulation is required.

I now turn to best management practices. The establishment and ongoing review of best management practices in agriculture is seen as the most positive way of dealing with agricultural chemical issues. The Gunnedah Chemical Liaison Committee has developed a workable set of guidelines to manage chemical application in order that all parties are aware of their responsibilities.

It is vital that ongoing development proceed between agricultural peak bodies and the various community interest groups to continuously improve such guidelines and the best management practices that underpin them. Education is therefore imperative, with a co-operative effort between government industry, environmentalists and community organisations, to ensure a balanced approach is achieved.

Alternative pest management regimes. The Ord River project has been in action for three years. It is an experimental process that aims to deliver sustainable pest management regimes to Western Australian agriculture. We would all remember 15 to 20 years ago when pest pressures put an end to cotton and sorghum production in the Ord River area.

There are 17 growers currently involved in the Ord scheme growing cotton, with also a much publicised program of Market Gardening – sweet corn, cabbage, lettuce, et cetera. These crops are all extremely susceptible to thrip and heliothis pressures. This new program aims to grow (and successfully done so) these crops without the use of “hard” chemicals. Endosulfan is not used.

The program relies on “host crops” to harbour predators, and a unified group approach to the application of alternative insect control measures. There is a similar program in use in the Moree district. The alternative applications entail the use of viruses and soft chemical applications. This approach has two-fold benefit for industry and the community: reduced reliance on chemicals, resulting in reduced risk of offsite contamination; and longer sustainable life for the existing chemicals, resulting from reduced insect resistance pressures. Although there is acceptance, this operation is small, and initiatives such as the Ord model need to be further expanded into other areas of Australia in an endeavour to reduce the total chemical load.

I now address planning issues. Considerable knowledge has been gathered by catchment management organisations over the last few years with regard to the environmental balance of catchments across New South Wales. The Liverpool Plains Catchment Management Committee is one of the leaders in this respect.

Council perceives a partnership between itself and the Liverpool Plains Management Committee to establish an integrated action planning approach to agricultural issues in the Gunnedah area. This will involve using farm management plans as a self-regulatory tool through identification of such plans in the Gunnedah LEP.

This passive regulatory approach is seen as providing some meaning to the previous initiatives of catchment management organisations. Currently, council is at the forefront of developing a regional environmental plan for the whole of the

Liverpool Plains in conjunction with the Department of Urban Affairs and Planning. The plan will deal with catchment issues and ultimately dovetail into the LEPs for the six local government areas in the Liverpool Plains, thus establishing a consistent approach to rural planning within the catchment without regard to local government boundaries.

In 2002 council anticipates implementing a new local environment plan. As a lead into this plan, a complete environmental study will be initiated, very much with a rural focus. The study will give consideration to integrating the various tiers of substantial-catchment plans into the LEP, calling up National Registration Authority restrictions for chemical use in respect of specific crops, establishment of land use subzones within agricultural zones and buffer zones having regard to potential agricultural chemical use.

It is essential that planning zones not only provide differentiation and protection from land use zone to land use zone, but also clearly outline the extent of the activities that may be undertaken within the zone, whether such activities are with or without consent. This may lead to the need to specifically redefine agriculture.

The opportunity exists to provide a tangible link between actual land use, agricultural zoning and the environment sustainability of an LEP. Among possible mechanisms that could be included in a revised LEP are:

- Identification of all current land use activities or “primary use” of land (ie in terms of existing use, for example, broadacre, irrigation, or grazing).
- Redefining the term “agriculture” to differentiate between intensive, irrigated, cropping and grazing.
- Establishing agricultural “precincts” or subzones based on primary use.
- Identifying the “intention” of the zone or precinct, together with objectives making allowances for future uses and diversification.
- Linking back to other natural resource management issues (vegetation, fauna conservation, water management), plans and studies undertaken and operating in the local government area or wider catchment.
- Investigating the use of complying development for agriculture based on standards associated with best management practice, agricultural chemical application guidelines, farm plans and subcatchment plans.

Bear in mind that all of that would be upfront; it could not be retrospective.

CHAIRMAN: The Department of Urban Affairs and Planning is coming to our Sydney hearing, and a few of these things that you have raised will be dealt with at that hearing. We want to make sure we finish on time today, and therefore I will be hard on the time allocated to members.

The Hon. I. COHEN: Councillor, what is your view or your council’s view of the Dubbo Council’s decision, in terms of a development application process, for the establishment of cotton farms near the Dubbo city? Do you see that as a step in the right direction for closer scrutiny by a local council over industry?

Mr SILVER: You are referring basically to the fact that cotton is a consent use, I take it, within the Dubbo LEP?

The Hon. I. COHEN: Yes.

Mr SILVER: And the fact that to establish a cotton farm activity, you need to acquire consent. The question that that then raises is: What impact does that have on other uses which may well have other associated pesticide type uses and the balancing of those uses? The question that the council is looking at as far as the Gunnedah local environmental plan and the long term is concerned is to not have a totally regulated system, given the need to monitor that regulated system.

It may well be satisfactory to provide consent in restricted locations for certain activities, given the environment problems that surround it, but, on a broad scale – in terms of the Gunnedah situation, with 5,000 square kilometres – the number of staff that would be needed to monitor that and to actually put in place or look after the conditions associated with it would be far too great.

I am not aware of the situation at Dubbo as far as conditions are concerned and their ability to actually monitor any conditions that that council put on the consent. But I would be surprised if a council in this area would go to a totally consent-driven or regulated system.

The Hon. I. COHEN: I appreciate what you are saying about staffing problems. Do you think your council, given its staff problems, has the expertise and resources effectively to manage the issuing of penalty notices outlined in the Environment Protection Authority discussion paper?

Mr SILVER: Council did respond to the discussion paper. One of the items that council highlighted in its response was the indications in the discussion paper that other public authorities may well be granted that power. I question whether council has the expertise to do that, and I question whether it does have the resources to successfully undertake that monitoring process and issue penalty notices.

The Hon. I. COHEN: Does the council receive complaints or concerns by workers using chemicals? If so, what are those complaints, and how many of them are there?

Mr SILVER: You are referring to workers across the shire?

The Hon. I. COHEN: I guess I am mainly focussing on council workers, but other workers in the council jurisdiction as well.

Mr SILVER: To be honest, no, council does not receive complaints in that regard. From time to time council has received complaints from the general community in relation to other activities, and those are passed on through the Environment Protection Authority reporting mechanism.

The Hon. I. COHEN: Do you have any idea how many complaints there are over a year from the community?

Mr SILVER: In more recent times, the number of complaints made to the council has reduced. Going back three years or four years, when some of this debate initiated, it was probably of the order of half a dozen to 10.

The Hon. I. COHEN: How many of those complaints would relate to damage to other crops from spray drift or chemical trespass? Does your council still consider that to be an issue in the area, or has there been a refinement of practices to resolve that?

Mr SILVER: Clearly, from council's complaints received, there has been a reduction in that. Really, that would have to be assessed through the Environment Protection Authority reporting mechanisms. But the perception of the council is that, from a council point of view and certainly from an officer point of view, the work that is being done by the Chemical Liaison Committee has overcome the reporting to the council.

The Hon. I. COHEN: Have there been any complaints over the release of contaminated tail waters?

Mr SILVER: Not to the council, to my knowledge, no.

The Hon. I. M. MACDONALD: In your analysis of the local environment, have you found problem areas caused by chemical usage as a result of any monitoring programs that you may have conducted yourself? If so, where are they?

Cr MARSHALL: Some time ago, prior to my involvement with the council, an option was presented in regard to probably a spray-free zone around the town. I guess that would reflect that at some stage there was a problem. I guess, realistically, in this sort of area, the problem will generally come – and I don't think it is any different in the Gunnedah area – where you have rural 1(c) or smaller allotments encroaching into areas where there is broadacre agriculture.

The Hon. I. M. MACDONALD: You now have a buffer zone around the town?

Cr MARSHALL: No.

The Hon. I. M. MACDONALD: There was a proposal to have it, was there?

Cr MARSHALL: It was never adopted.

The Hon. I. M. MACDONALD: Do you feel there could be a need, given the problem that encountered last January or February, given the unique inversion problems that you have here, to have such a buffer zone?

Cr MARSHALL: The comment I would make in response to that is: How big are you prepared to make the buffer zone? The research that has been provided in regard to the problem that occurred last year would suggest that we would almost take a buffer zone to Cowal. I question the effectiveness of that, and the impact on agriculture in this community. I don't move away from the factor of protection of community health, but the information that is available to me about that incident in the town is that it came from a considerable distance from town. The process – which I don't think even reached council consideration – was for a 10-kilometre buffer zone, I think. That incident was from considerably further than 10 kilometres.

CHAIRMAN: We have a number of questions that we will ask you to take on notice. Those questions will be incorporated into the transcript. Those that you have not already covered, would you respond to and forward that information to the Committee as soon as possible.

Mr KERSHAW: Will a copy of the full transcript be sent to us?

CHAIRMAN: For checking, you will just get your part to start with. Later, we will be able to give you a copy of the complete transcript.

Mr KERSHAW: We would appreciate that.

CHAIRMAN: Those questions on notice are:

1. *Can you expand on the concerns raised in your submission regarding the opportunity for applying pesticides at a lower rate than stated on labelling?*
2. *Are any of the proposed legislative amendments outlined in the Environment Protection Authority discussion paper unacceptable to the council?*

(The witnesses withdrew)

MICHAEL JAMES SLACK-SMITH, Chairman, Narrabri Rural Lands Protection Board, of Moana, Burren Junction, and

ESLYN HAZEL JOHNS, Administrative Officer, Narrabri Rural Lands Protection Board, of North Lynn, Kaputar Road, Narrabri, sworn and examined:

CHAIRMAN: Mr Slack-Smith, what is your occupation?

Mr SLACK-SMITH: Grazier/farmer.

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

Mr SLACK-SMITH: As Chairman of the Narrabri Rural Lands Protection Board.

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

Mr SLACK-SMITH: I did.

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

Mr SLACK-SMITH: Yes, I am.

CHAIRMAN: Mrs Johns, what is your occupation?

Mrs JOHNS: I am the Administrative Officer with the Narrabri Rural Lands Protection Board.

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

Mrs JOHNS: As Administrative Officer.

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

Mrs JOHNS: I did.

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

Mrs JOHNS: 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. However, I should warn you that

Parliament has the right to overturn the Committee's decision and make your evidence public. Mr Slack-Smith, did you want to make an opening statement?

Mr SLACK-SMITH: Yes, Mr Chairman.

CHAIRMAN: You have a document there that you may want to table, is that right?

Mr SLACK-SMITH: Yes, Mr Chairman.

Document tabled.

CHAIRMAN: You might make your opening statement.

Mr SLACK-SMITH: Narrabri is one of 48 Rural Lands Protection Boards in New South Wales. They provide a wide range of services to the New South Wales community, including land management, animal health and food quality, animal welfare, stock identification, pest animal control, noxious insect control, management of travelling stock routes and reserves, natural disaster relief and drought management.

Each board is a statutory body, funded by ratepayer contributions and established to give a service to its ratepayers through the implementation of the Rural Lands Protection Act. Boards are managed by an elected board of eight directors who are ratepayers and represent their local areas. Directors oversee the operations of the board, monitor services delivered to ratepayers, and focus on land protection issues. Directors are supported by a small number of staff, comprising veterinarians, rangers, administrative officers and support staff. At this moment, Mr Chairman, I would like to apologise for you having the B team in front of you; our district veterinarian, who has dealt with this issue before, has a prior appointment in Canberra. The director who has also handled the chemical pesticide issues is under the knife in Sydney, having an operation. But we apologise for that, but we are willing to take questions on notice so that those might get back to them, if we may.

CHAIRMAN: Thank you.

Mr SLACK-SMITH: In respect of animal health and food quality, the boards provide the official front line for animal disease control services in this State. This involves animal disease investigation and advisory activities in respect of herd and flock problems, including the investigation of pesticide residues.

With regard to pest animal control, the boards are responsible for managing the control of rabbits, wild dogs, feral pigs and noxious insects. Boards also assist landowners in the control of other pests such as foxes, feral cats and mice. The control involves: preparation of poisoned baits; providing landholders with advice and assistance; controlling such animals on travelling stock routes and reserves; and the inspection of properties to ensure that landholders are in fact fulfilling their obligation to control such pests.

Boards are responsible for the management of travelling stock routes and reserves. This area totals approximately 500,000 hectares, or 2.7 per cent of the State's land area. This involves: management and protection of this land; control of travelling stock movements; protection of remnant vegetation; and maintenance of watering points and other improvements. The travelling stock route network is funded via levies collected from the users of the various travelling stock routes and reserves.

I move on to pesticide management. Incidents with DDT, Helix and endosulfan demonstrate the potential for spray drift to contaminate off-target pastures. Subsequent grazing of these pastures has caused residues in cattle. Chemical residues pose a continual threat to the domestic and export meat industries. The majority of residues causing spray drift incidents involved aerial application by the cotton industry. Spray drift can affect the applicator's cattle, neighbours' cattle and travelling stock routes.

Much of the concerns with stock residues are not the individual affected animals but the potential to affect the meat export industry. This is the true seriousness of the offence, not only the value of the affected cattle. The endosulfan crisis showed that the actions of a few incidents put at risk the export meat industry, which is worth \$3.5 billion.

On another scale, as shown in the 1997-98 endosulfan crisis, a handful of residue incidents largely concentrated in one area of the cotton industry created severe marketing difficulties for many beef producers in all cotton growing valleys. In the Narrabri Rural Lands Protection Board district we had one beast above half MRL and it was traced to a beast that strayed into a cotton paddock. Beef producers on the E list found the sale of their cattle very difficult unless they took a substantial discount. The E list included cotton growers and neighbours of cotton growers (regardless of distance from the cotton crop). Thus approximately 900 beef producers, of whom Narrabri Rural Lands Protection Board had 282, across the cotton areas, found themselves in de facto quarantine for the cotton season.

Spray drift incidences have been spasmodic, but casual observations indicate that there is a climate of greater awareness and co-operation with chemical applicators and users. The use of smoke indicators to detect drift is an incident.

One problem that has become apparent is the division between New South Wales Agriculture and the Environment Protection Authority over the responsibility for residues causing spray drift. New South Wales Agriculture indicates that spray drift is not its responsibility. New South Wales Agriculture concentrates on reducing the market impact of residue incidents, leaving action on spray drift to the Environment Protection Authority. It is a bit like the specialist medicos and panelbeaters involved in car accidents.

The Environment Protection Authority indicates that it is an environmental protection agency. As such, residues are low priority. It is an industry matter, similar to Accident Investigation Units in a motor car accident; they come in after the accident. This has resulted in a failure to have a co-ordinated program to prevent residues caused by spray drift and to investigate the factors surrounding residues caused by spray drift.

The Rural Lands Protection Boards are like the towtruck operators and the ambulance; they are there to clean up the mess after it.

Rural Lands Protection Boards have a responsibility for sustainable management of travelling stock routes. In the Narrabri Rural Lands Protection Board the stock routes comprise 38,000 hectares and most are adjacent to large areas of cotton and other crops. Stock that have been grazing on travelling stock routes contaminated by spray drift have recorded residues. Monies from stock grazing on travelling stock routes are used by the board to maintain the travelling stock routes. Any reduction in grazing stock numbers has a direct financial effect on the board and its ability to maintain travelling stock routes in a sustainable fashion.

Following the chlorflurazon and endosulfan crisis, travelling stock routes in the Narrabri board developed a reputation for being chemically contaminated. The District Veterinarian received numerous calls regarding chemical status of the stock routes, and as a result large mobs were diverted to other boards. In your hand-out there is a breakdown of some figures in that respect.

Traditionally, drought years attract greater numbers of stock onto the stock routes seeking agistment. There have been incidents in the Narrabri board where aerial application of herbicides by cereal growers has caused considerable damage to travelling stock routes pasture. Herbicide damage is very obvious and perhaps indicates the latent problem of pesticide drift. It is quite easy to see when you put a Roundup spray over a patch of barley grass.

Sustainable management of travelling stock routes requires the use of herbicides and pesticides. Rural Lands Protection Boards have responsibility to control noxious weeds, insects and animals, as well as maintaining travelling stock routes in a fit state. It is important that travelling stock routes do not become a source of problems for adjacent landholders. The vast majority of herbicide and pesticide use on travelling stock routes is spot spraying, with aerial application being largely confined to campaigns during locust plagues.

Locust plagues are a regular occurrence in the Narrabri board. Locusts pose a severe threat to pastures and crops. Control involves pesticide application by a number of methods. Hatched wingless locusts can be controlled by ground spraying, but swarms can only be controlled by aerial application. Successful spray control depends on vary narrow time windows, and these are under the control of the Plague Locust Authority and New South Wales Agriculture. This control is essential to prevent the increase of locust numbers and the exponential damage caused.

Noxious animals are a threat to agriculture, and it is becoming increasingly apparent that they are a threat to the general environment. Among other control methods, poison baits are an essential part of many control programs. As an instance, this month so far the Narrabri board has issued 1,200 individual fox baits and 600 kilograms of grain for poisoning pigs. The environmental damage that will be prevented by that program is remarkable, but it requires the co-operation of the

ratepayers. At the moment National Parks is planning a major campaign for the Pilliga Nature Reserve to control foxes and pigs.

The Hon. I. M. MACDONALD: In your submission you deal with who should be responsible and who should be liable for offences. You advocate that the advising agronomist also be roped in. I have a bit of a problem with that in that I am sure the agronomist is working out what sort of product is to be applied, but other parties will make decisions about when the application will be made.

If we are going to rope in agronomists in this way, would you not find that the agronomist will become more reluctant to give correct advice on what to do and to get involved in many ways? In other words, you would be putting a penalty on their business, and people become very reluctant to provide adequate and proper advice if they are subject to possible extensive litigation.

Mr SLACK-SMITH: The agronomist issue has been bounced around by our board a little bit, for the reason that you have just said. In the cotton growing situation, quite often the decisions are made by the agronomist on behalf of the landowner. A lot of this has been covered by the best management practice of the cotton industry, and we feel reasonably happy with the way that the industry is going with its guidelines on that issue. I grew cotton for 10 years, so I have an idea how it works. Admittedly, it was 10 years ago, and the water has travelled under the bridge since then.

The Hon. I. M. MACDONALD: Or hasn't.

Mr SLACK-SMITH: Quite often decisions are made by the agronomist that a spray has to go on. He contacts the aerial operator and tells him that a spray has to go on for Mike Slack-Smith. He tells the operator which fields, and then the agronomist contacts the grower via fax, and sometimes the grower may not even know that the spray is going on. That has happened to me in the past: you wake up in the morning and hear an aeroplane and you know that you're doing a spray. Maybe it is because you had not checked your fax machine.

The time windows for spraying cotton are pretty small. You are spraying an egg or something a millimetre long, and the smaller you can spray it the more effective is your result. So you do not have big time windows to do a successful and cost-effective job, which is the main issue there.

The Hon. I. M. MACDONALD: Tell us a little bit more about this division, as you describe it, between New South Wales Agriculture and the Environment Protection Authority and their responsibilities in these matters.

Mr SLACK-SMITH: Basically, this came from our District Veterinarian. He had a serious situation where he could not get the Department of Agriculture to mother the residue problems that he had, and the Environment Protection Authority were not interested until after it had happened. We feel that there should be warning signs, like a traffic warning sign, to liken it to that, to slow down. There is a problem. We are not really sure just how it can be addressed. At the moment we have two groups that are

looking for the after happenings and no-one there to try to prevent it from happening. We feel that a little bit of prevention is a lot better than a lot of cure.

The Hon. I. COHEN: You mentioned that the aerial spraying industry in general is acting in a more responsible manner. You talk about the tightening up of legislation and the Pesticides Act. Do you support changes to the Pesticides Act to regulate the industry more?

Mr SLACK-SMITH: I am not really sure that regulation for the sake of regulation is the way to go in a lot of this. As we have seen in the Narrabri board, with this endosulfan, Narrabri and residues go back a long way. We had DDT 20-odd years ago now. Last year has been a bit of a highlight from the Narrabri area in the fact that we are still growing the major proportion of cotton in the State and we had one beast that was straying into a cotton paddock that was a problem.

I think the message is getting through to the industry to be responsible, and the industry is hearing that message loud and clear. I am not totally convinced, from a personal point of view, that legislation would be the answer. I think if you are getting people wanting to do it, they are doing it a lot more successfully than if you are flogging them to do it.

The Hon. I. COHEN: You mentioned that the agronomist has a responsibility, but who should be responsible if we are looking at pilots spreading the pesticide, the landowner and the agronomist. How do you see the responsibility lying for those various parties in terms of chemical trespass?

Mr SLACK-SMITH: It is a bit of a joint effort. The property owners, I suppose, are a bit like the managers of any institutions: the buck stops with them. It is very hard to stop the buck when the aeroplane is on its way. Admittedly, communications have helped that, as have smoke detection and that sort of thing. I had never seen smoke used until the last couple of years, where they started to drop fuel onto the exhaust pipe, or whatever they do to make the smoke. That is a tremendous move forward, because you can actually see what is happening there and then.

It is important to have a wind to spray successfully. I picked up earlier about that drift over Gunnedah. I'll bet that happened in an inversion situation when there was not an ounce of breeze. You need breeze to get a successful spray. But I get back to your question about who should be responsible. It has got to be a joint responsibility, because once the aircraft is putting the spray on, if he sees that something is going wrong, he has got to be responsible enough to stop spraying.

The same goes for the agronomist. He has to select a product that is suitable for an environmentally sensitive area. He cannot go in with a hard product where a soft product would do for the sensitive situation.

The Hon. I. COHEN: You mentioned the inversion layer, which obviously is a very deceptive situation for those who have to deal with it. Do you see that problem of inversion layers occurring outside this immediate area, or is it just the landform here, in

terms of your overall pastures protection interest? Is it something that is occurring in other areas?

Mr SLACK-SMITH: I think inversion layers occur everywhere. I am right out of my depth here when it comes to talking weather, but I have seen one happen at home, where the neighbour's chemical sat in the air for maybe two hours; it wasn't going anywhere, and it wasn't doing him any good or anyone else any good. It is a situation where, unless you get the circumstances right to put the product on, everyone is wasting their money. That has happened in the past, and I daresay it will happen in the future.

The Hon. I. COHEN: From your perspective, given your area of interest, would the focus on ground application be a significant improvement in the situation that you have been witnessing in the last few years?

Mr SLACK-SMITH: I am sure it would be, and I think the National Registration Authority guidelines point that out pretty well to. It is a situation where you have different buffer zones and the like, with different methods of applying chemicals. They seem to suggest 1.2 kilometres or 1.5 kilometres, or whatever it is, for ultra low volume down to 200 metres for ground rig endosulfan application. The same principle works all the way through with all chemicals. There is a lot more spraying by ground rigs at the moment. I was speaking to a bank manager yesterday who said that he had just financed so many dollars worth of ground spray rig so that they will get a better application.

CHAIRMAN: You mentioned the E list, farmers whose farms were put on the E list purely because they happened to be beside a nearby cotton farmer, not because they are contaminated or anything like that. You mentioned that they suffered a discount. What sort of a discount?

Mr SLACK-SMITH: It was notable.

CHAIRMAN: Was it 20 cents or something?

Mr SLACK-SMITH: Up to that amount, yes.

CHAIRMAN: Is that 20 cents live weight?

Mr SLACK-SMITH: Yes. But, basically, in Narrabri, one major cow buyer just wouldn't touch them. And, once they start that, everyone else gets them cheap.

CHAIRMAN: I thank you very much for your time in coming along today.

Mr SLACK-SMITH: Thank you, Mr Chairman.

CHAIRMAN: The questions on notice will be in the transcript.

Mr SLACK-SMITH: That is good, because the people who will answer them are not here.

CHAIRMAN: I thank you very much for your evidence and your submission. The questions on notice are:

1. Can you outline any areas of concern regarding pesticide management that are particularly related to Rural Lands Protection Boards?
2. What measures have the Narrabri Rural Lands Protection Board or other boards instituted to minimise the impact of pesticides on livestock?
3. What legislative or policy mechanisms would you like to see in place to ensure the effective aerial application of flying insects such as locusts?

(The witnesses withdrew)

(The Committee adjourned)

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Tuesday, 3 August 1999

The Director
State Development Committee
Parliament House
Sydney

Reporting Fees – W. Norris

To:-

Monday, 26 July 1999

Attend at Dubbo to report inquiry into the use and management
of pesticides in New South Wales\$ 300.00

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Tuesday, 27 July 1999

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