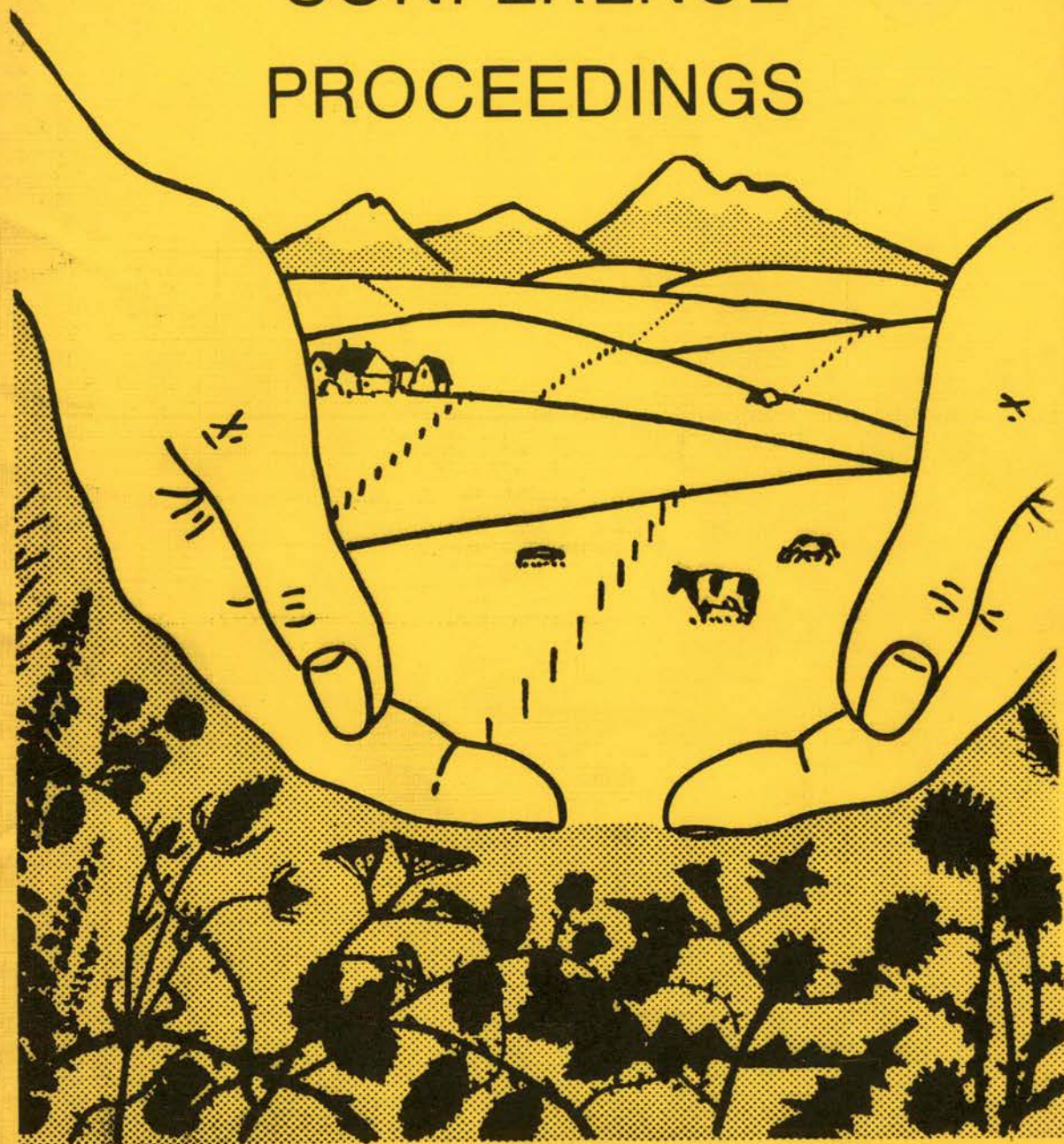


*JOHN W. HARRIS*  
INSTITUTE OF NOXIOUS PLANTS OFFICERS (INC.)

# 1980 CONFERENCE PROCEEDINGS



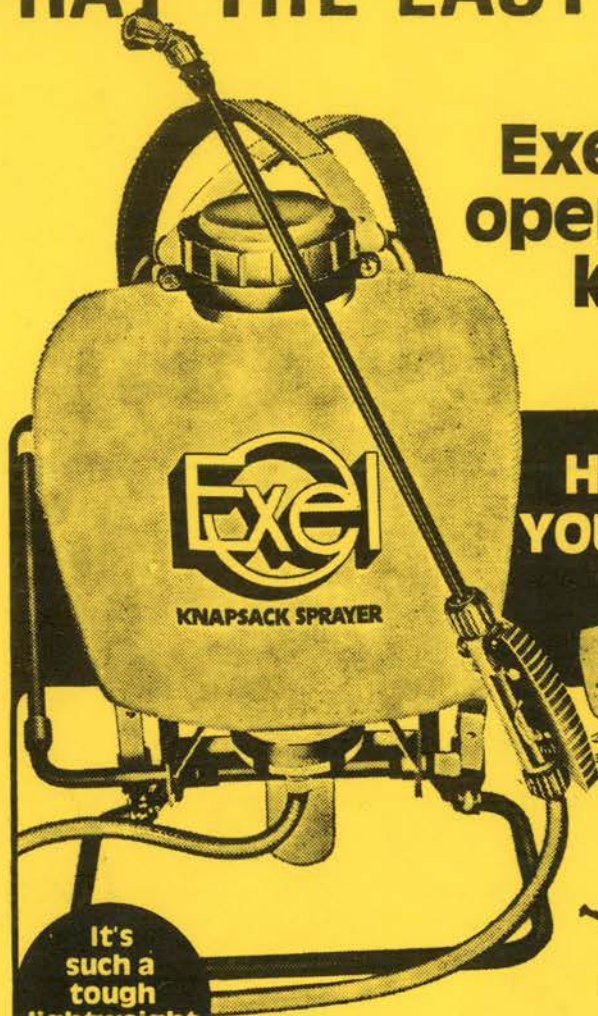
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MONDAY 28th TO WEDNESDAY 30th APRIL, 1980



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# PREFACE

## TO 1980 CONFERENCE PROCEEDINGS

These proceedings of the 31st Conference of this Institute are a valuable record of the opening addresses and papers presented. The frankness of the welcome extended and the opening address by Mr Elsworthy, Vice-President, New Zealand Federated Farmers gave concern at lack of communication in the administration of noxious plant control.

It was pleasing to see the majority of Noxious Plants Officers attending plus the many Councillors from the employing District Noxious Plants Authorities.

The attendance at Conference were as follows:

- 98 Noxious Plants Officers
- 22 Councillors
- 31 Wives and Visitors



MR F. J. MARSH

The topics presented were varied and interesting and of value to all Officers in administering the Noxious Plants Act, 1978. The Institute is most grateful to those members of the Noxious Plant Council and the Palmerston North Regional Co-ordinating Committee for their contribution to the Conference. Also the many other speakers from the Ministry of Agriculture and Fisheries, Works, Trade and Industries, plus the Catchment Board.

Congratulations must be given the Manawatu-West Coast Branch of the Institute for the arrangements and organisation of the Conference. We also thank most sincerely all those people who gave their time and expertise to ensure a successful Conference.

F. J. MARSH,  
President.

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# OPENING SESSION

## MR F. J. MARSH — PRESIDENT

I welcome everyone here to the start of this 31st annual conference of the Institute of Noxious Plants Officers. I have an apology from Mr T. Wilson, the chairman of the Manawatu District Plants Authority, and unfortunately unable to attend. Mr Don McNab, who is the new chairman of the Noxious Plants Council will be addressing conference in his place. Ladies and Gentlemen, I call on his Worship the Mayor of Palmerston North, Mr Ellwood, to give a welcome address to conference.



MR F. J. MARSH

**THE MAYOR OF PALMERSTON NORTH, MR ELLWOOD:** Mr Chairman, distinguished guests, Ladies and Gentlemen — First of all, a warm and friendly welcome to Palmerston North; those of you who tried to sleep last night may have appreciated the warmth of a sub-tropical location of Palmerston North, just a little north of Wellington.

However, welcome to our city, a city now of 60,000 people and a city which is developing and at the time of developing is changing its character somewhat. We may sometimes tend to think of our city as a "think tank" city; increasingly we have become dependent upon the growth of educational and research facilities in and around the city and that growth has had quite an impact upon the style and character of life in Palmerston North.

I hope you take advantage of viewing some of the changes that have taken place in the past decade. These changes have been quite deliberate and have been designed to lift the city of Palmerston North from being but a purely agricultural centre to a major inland city in its own right but very, very happy that it is the centre of a very rich agricultural community.

I thought in extending my welcome I would

just pass on a few thoughts about reorganisation of noxious plants administration that you particularly are most interested in. I think within the municipal local government field, we have ourselves a great interest in what you are doing and in what you are attempting to do.

I believe that the changes you are now applying are a step in the right direction and indeed, if nothing else, it is bringing the municipalities and councils much closer together on an area of local government administration which is of greater importance nationally.

But I am bound to say that I see the changes that you are now applying but a step along the way towards the integration of noxious plants administration within the new sphere of regional local government and I say that for this reason: I believe that we have passed through a phase in New Zealand's development where special purpose or ad hoc activity is just about over.

We are finding increasingly that where there is a one-off activity, it is so easy in budgetary pruning to cut out the application of resources for that one-off activity. We find in the municipality field, especially those of us who are in multi-purpose work, that the fact that we are multi-purpose enables us to budget much more effectively and spread the area from which our resources come, and as we develop regional local government, the sooner we give it real functions to perform the better; then I see noxious plants administration along with a number of other activities being very, very sensibly accommodated within regional local government.

So, the message I have for you from Palmerston North and perhaps from municipal local government generally, is that when the time is ripe, we will welcome you within the field of multi-purpose local government administration.

So, welcome to Palmerston North and I do hope you have a most enjoyable stay and a very fruitful and worthwhile conference.

**PRESIDENT:** Ladies and Gentlemen, I call on Mr Donald McNab, the chairman of the Noxious Plants Council, to address conference.



**MR DONALD McNAB:** Ladies and Gentlemen, Mr President, I have no formal address for you because we in the Plants Council have been kindly invited to take part in your conference in various workshops which you are undertaking; for myself, Bruce Shallard and Willis Burns will be here today to be with you and then again on Wednesday; Mr Max Somerville and Mr Reg Congdon to name at least two, will be here on Wednesday, so we are going to be a part of your working conference, we are going to be pretty interested in knowing what you think about the operation and the part you have played in it and I would like to remind you that as much as two and a half years ago the Noxious Plants Council who were then an advisory committee, to the Minister, we saw the real need for you people to be brought up in the forefront of this new administrative idea on noxious plants and to be a very important part of it and with that in view we undertook, with the help of some of your officers and through the Ministry of Agriculture and Fisheries to get a training scheme going with which you are all now familiar with and which will grow in stature and grow in scope and become more important as time goes by.

It is a new field that we are in and it is a field where we seek the co-operation of everybody. And we have a common ideal, I believe; certainly those on the Noxious Plants Council are going to endeavour in every way possible to maintain a consistency in noxious plants control which probably hasn't been attained before. This is our hope in the longer term.

We realise that we won't do everything in a few months, or in a few years, but what we will expect to have coming into the scene is this consistent programme of practical approach to noxious plants.

Now, amongst other things, we have the terrestrial weeds, we have the administration of a fund of money which Government gives us to administer in the best measure we think fit. That is a separate function of the Plants Council.

Our major job is to look after noxious plants throughout the whole broad sphere of the New Zealand scene but the administration of the sum of money which Government makes available to us of course seems to take up a lot of time, it seems to preclude a lot of other thinking on noxious plants, at least outside the Plants Council's view. So we find that a great deal of our time is given up to the administration of this fund, but it is only a part of the total, it is a very valuable part.

There may be some tightening-up, of course, in the coming years because as you well know the Government policy is insisting that we look much more carefully at the levels of expenditure and we have an obligation to undertake Government policy.



Messrs D. McNab, B. McSweeney  
and B. Elwood.

I particularly represent the Minister's view on the Plants Council where previously I represented Federated Farmers. They have two representatives on the Plants Council, the Counties have two and you have a representative Mr Reg Congdon, who will be here later in the week.

One of the other spheres of our obligation of course is with aquatic weeds and we find the aquatic weeds scene quite daunting in some respects because in many cases, of course, aquatics have become established, in many cases they're weeds of much more economic significance if they got out of control than even our terrestrial weeds that are growing so commonly around in much of the land that we occupy and farm, but we do not in the Plants Council believe that at any time we shall walk upon the water, but we certainly have to look after the water and we will certainly make ourselves available to you people in representations that you may like to make to us, that we want to combine with all the other resources within the community to do a better effective job on noxious plants.

Thank you again for your invitation to be present.

Thank you, Mr President.

**CHAIRMAN:** Thank you very much Mr McNab. I would like to mention Ladies and Gentlemen, that Mr McNab has been very much involved with the Institute in respect to training programmes. He was on the original committee which drew up the guidelines to training and has taken an active interest on the training committee up to the stage now that he is now the chairman of the Noxious Plants Council. So I can say from this Institute we are very interested in the affairs of the Council. The Council is directly involved through the District Plants Authorities where the work is carried out and from this Institute we would like in future, Sir, to possibly have more direct communication with the Council itself, meeting maybe once a year with members of Council. We think communication is one of the most important functions in noxious plants control.



I now introduce Mr Brian McSweeney, Chairman of the Palmerston North Regional Coordinating Committee — I now call on Mr McSweeney to address conference.

**MR BRIAN MCSWEENEY:** Your Worship the Mayor, Distinguished Guests, Delegates. The President mentioned that this is one of the larger regions; it may be one of the larger regions but in relation to one of the comments that Mr Ellwood made, certainly one of the regions with the greatest number of local bodies that we have to deal with in terms of noxious plants control and I think you have to bear in mind the sorts of comments the Mayor made in his opening address.

It is with great pleasure that I welcome you to this region, it is a very varied region as it is running from Taranaki in the north through to Waiouru and down to Wellington.

Now, in fact, the region does not claim responsibility for all the things that happen down in the southern part of the area, down around Wellington.

I believe that for you this is a very important meeting coming as it does as the first once since the full implementation of the new Act and I would agree with you that it has been a very frustrating year and I am pleased to see that most of the topics in your three days of conference relate to some of the problems that have arisen over the past year and I am sure that you will sort many of these out.

I also believe that it is unfortunate that the new Act has coincided with this whole business of subsidised weed control. The Act recognised, as did the Fitzharris Committee of Inquiry recognise, that the prime responsibility for noxious plants control in fact rests with the occupier and the business of subsidy has caused us, I think, to lose sight of this major principle.

I would also like to stress that the object of the exercise of noxious plants control is to protect and develop our agricultural land.

The Agricultural Review Committee, in its report to the Minister of Agriculture, states that for the year ending June 1980 it is estimated that agricultural exports will account for \$3.7 million. Now for those of you who saw that programme about energy in Taranaki the other night, that was a large sum they were talking about, now in fact it is not one year of that sort of export income that we get from agriculture.

So that, measuring your success by the number of noxious plants killed, by the area treated, by the subsidy spent, by the litres of chemical used, to my mind is a pointless exercise. It has got to relate to the prime function which relates to agricultural income and I would hope that over the next three days, you will bear this in mind over all of your deliberations.

Thank you, Mr Chairman.

**PRESIDENT:** Thank you very much, Mr McSweeney. It has been a frustrating year. I am sure that if we all work together both at District Plants Authority level through to Regions and Noxious Plants Council level, I am sure that the Act can be administered properly.

It is now my pleasure to introduce Mr Peter Elsworthy who is the Dominion Vice-President of Federated Farmers. He is a farmer in the South Island, very much involved in deer farming.

I call on Mr Peter Elsworthy to address conference and open our 31st conference.

**MR PETER ELSWORTHY:** Mr President, your Worship the Mayor, Mr Don McNab, Mr Brian McSweeney, Delegates, Ladies and Gentlemen.

Thank you for inviting the President of Federated Farmers to open this your 31st conference and Alan Wright, our President, who is currently overseas, has asked me to sincerely apologise for the fact that he couldn't, for obvious reasons, be here today.

He is, as some of you may have read, fulfilling an important function for all of us. He has talked to the European Parliament and he has been promoting, as has been the Deputy Prime minister, from the agricultural scene particularly, the sales of our produce into the European Economic Community at this time.

The federation is honoured, Sir, to have been asked to associate itself with this conference because, although you are employed by local authorities and other agencies, and deal for some of your time with public lands, in general your task is to safeguard New Zealand's heritage, its land, by communicating with those who have responsibility for that land, and that's predominantly the private land holder and, as Mr McSweeney said, he is ultimately responsible for that land, and your duty is, at its most altruistic, the preservation of this heritage, this non-renewable resource, and so does the good farmer, as with you, view himself as the custodian of that heritage during his lifetime rather than the owner of a resource to be exploited and I like the logo that I see on the wall behind you with the hands protecting the land against the weeds.

So thus do the higher motives of those who we in Federated Farmers represent parallel yours as weed officers quite exactly, but altruism of course does not always enter into this situation and there are noxious plants officers who have misused their considerable power as there are farmers who have misused their land.

However, my inquiries when asked to talk to you, have indicated that the officers of your Institute have been noteworthy for the responsible way in which they have exercised their duties, particularly over this latter period under the persuasive and advisory climate of the 1978 Act and I can only hope and trust that





MR P. ELSWORTHY

generally — there are exceptions — the individuals whom we within the Federation represent, the farmers with whom you deal, are generally responsible to buy your members; we know that there are individuals who are not — we hope that generally they are the exceptions.

But should there be problems then associating as we are today must be the sensible way to minimise and overcome what deficiencies there may be. So could I please just list a number of areas which the Federation sees as being relevant to yourselves and ourselves at this time.

The 2-4-5-T controversy requires, I am sure you will agree, sound judgements and cool heads by those who advocate and to those who oppose, and we would suggest that allegations by those who advocate of emotionalism are counter-productive.

My personal association with the Federation's sponsored bus journey into the Wairarapa recently on which you were represented very capably and ably and helpfully to us by your President, Fred Marsh, and the homework that I did prior to that investigation have convinced me that there is currently no evidence to show that the 2-4-5-T which we use in New Zealand is harmful to human health. The Federation supports any evidence which adds to the bulk of knowledge, about the material, being concerned about our members as you will be for the health and security of yours and your families and their families.

We would hope that the questioning as to this material can be solved as soon as possible because unwarranted fears in the minds of rural folk are a burden which should not have to be borne any longer than is necessary in the interests of public health and safety and for that reason we support any sensible investigations which can be undertaken. We would hope that your thinking is parallel to ours on this issue.

We would see it as being important that there are emergency extermination plans available to deal with the discovery of the introduction of particularly unpleasant plants as say Johnson Grass both at national level for new introduction and at local level for dealing with outbreaks in an area which have previously been cleared. We would suggest that planning for such functions should be detailed and properly funded.

Federated Farmers subscribe, as I know you do, to the importance of continuity in noxious plants control and in the case of subsidised weeds, continuity of financial input. Your President mentions that in his annual report.

To subsidise the first year of the programme and then withdraw the finance for the second will, as you will all be so very well aware, prejudice the follow-up and puts to naught the funds which have already been spent.

We also believe that it is important that policy be made in the absence of panic or hysteria at a particular time. It is important, isn't it, to think new rules through to their logical conclusion.

A recent example of what we would suggest was precipitous decision-making was a proposed order with regard to wild oats. If this order had been enforceable, which it probably wasn't, do you agree, it would have resulted in the complete halt for perhaps six months or more of the movement of all wheat, barley and oats to mills, ports and malt houses; in the following year it may well have resulted in bankruptcy for many cropping farmers.

A direct equivalent in the stock world, as an illustration, would be to prevent the movement of sale even to a freezing works of any infected stock, foot-rot infected stock, from a farm. So what we are suggesting to you, to Mr McNab and to the decision-makers is that directives must be practicable and potentially enforceable, or communicable, and with this you must agree.

You clearly agree on my talks to you yesterday and around the country, that education and consultation are so much better than prosecution in noxious plant control, and generally you have all agreed when communicating with me that communication works.

Now, the exceptions we talked about earlier and it was described to me as the Court wish, not the Death wish, but the Court wish; one or two individuals in the community who seem to wish to get to Court regardless, they're there but we would support clearly, until that exception is indicated, communication rather than enforcement. And to that end we suggest it is a real cause for regret that most of the noxious plant groups have been allowed to wither and die.

We can think of notable exceptions, such as the excellent results that the McKenzie Basin group in our area has achieved in effectively eliminating gorse and broom in that area, and in



the North Island the outstanding work that the Homewood-Longdale Bovine, TB, Opossum and Pest Control Group has done in the Wairarapa, as your President and I saw on that coach journey.

Finally, we would suggest that the noxious plant inspectors around about New Zealand play a really vital part in ensuring new introductions or outbreaks of problem plants are monitored before being allowed to spread.

This trained eye, in the early stages of identification, could result, and has as you know and we have no doubt it could be so important in the future in preventing the need to spend large sums of private and public money after a problem has occurred; in other words, a good dividend on your salaries and time.

I have been interested to talk to your members throughout the country to seek out your problems and aspirations and on doing so it seems to me that the structure under which you perform your duties of national worth is generally sound but there is some dissatisfaction which I discern over the necessity for the regional co-ordinating committees and the question is, could not a strengthened district noxious plants secretariat handle the necessary co-ordination that those regional committees are expected to perform acting between the Council and District Noxious Plants Authorities and could they perhaps not do that at less cost and with increased efficiency.

Would it reduce the paper-work which your officers have told me they are deluged with as are we all and the ponderousness of which some of your members complain in the administration of the noxious plants overall national problem; and in relation to that Mr McNab mentioned tightening up, and I am sure you, Mr President, will be looking continually at the possibility of cost savings when these are clearly of such

importance in the national interest.

So these are the sort of problems that your conference can help solve by focussing upon them.

It is appropriate here that I mention the special confidence which the Federation bestows on our old colleague, Mr Don McNab, the new chairman of the Noxious Plants Council.

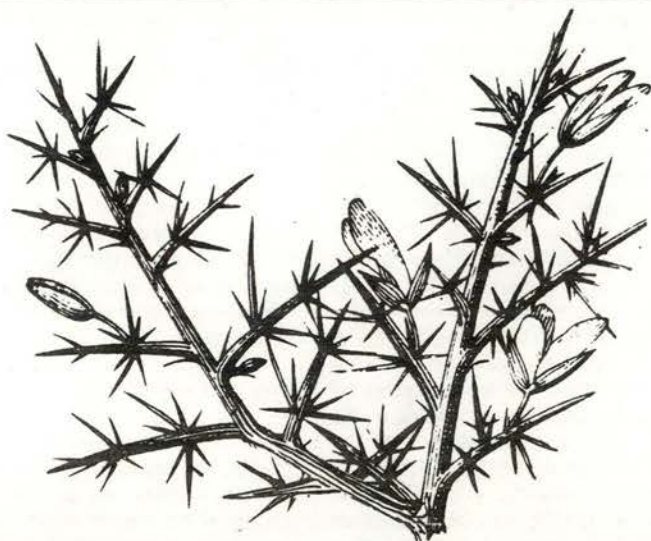
So, Mr President and Ladies and Gentlemen, we applaud the function you fulfil on behalf of the rural industry, we congratulate you on your training package which is administered by David Parkes and which I understand is going extremely successfully; we congratulate you on getting this conference together, not only of professional officers but of elected individuals from around the country.

We acknowledge the proximity and motives and interests of yourselves and ourselves and for that reason we offer you our support and assistance and I am honoured, Mr President, to declare this the 31st annual conference of your Institute officially open.

**CHAIRMAN:** Thank you, Mr Elsworthy. You have given a tremendous amount of worthwhile advice to the delegates at conference. Note will definitely be taken of your comments, and many of the subjects you have covered will be taken up in sessions at conference. We are very much aware of the important role that this Institute plays in the protection of New Zealand's agriculture.

In fact, our own magazine is called "Protect" and the logo defines that principle.

We are well aware that New Zealand's quality of life and standard of life is very much dependent upon agriculture and you can be well assured, Sir, that this Institute is certainly looking after the farming interests in New Zealand. □





# COMMUNICATION

A summary of an address given by H. A. Cozens to the Institute of Noxious Plants Officers Incorporated at their 31st Annual Conference on April 30, 1980.



MR A. COZENS

I have spent the last seven years of my life working in the Productivity Centre of the Department of Trade and Industry.

Productivity is closely linked with communication and I always remember a friend of mine from the Labour Department saying to me as we came out of the conference "You have just been talking about productivity, why don't you practice what you preach?"

When I asked him to explain, he said: "You are wearing your conference label on the left-hand side of your coat and this means when you extend your right hand to shake hands with someone your label moves backwards on your left lapel." Now you want to see who you are talking to and he wants to recognise you by name, but to find out who you are, you both have to lean forward trying to read the other's lapel badge.

In the end you stand there performing like a pair of mating penguins and you still have difficulty in reading his name.

If you wear your lapel badge on the right-hand lapel as you stretch your hand forward you make it easy for your companion to read your name and you can easily read his, which allows you to establish communication more readily.

Now I could understand the importance of what he said and was amazed when I met him at another conference, some three months later, to find that he had put his lapel badge on the left-hand side. Most of us know how to improve productivity or make the best use of the

resources that are available to us. The problem is that we don't often put into practice the things we know.

If there is one single factor which is slowing down productivity today it would be the lack of communication. For a great many people employed in all sorts of jobs this little poem could reflect the way they feel.

*It's not my place to run the train,  
The whistle I can't blow,  
It's not my place to say how far,  
The train's allowed to go.  
It's not my place to shoot off steam,  
Nor even claim the bell,  
But let the damn thing jump the tracks and see  
who catches hell.*

Many workers who are doing their job to the best of their ability receive little or no information about the success that they achieve in their job but are left in no doubt when something goes wrong that they have miserably failed in trying to achieve their objectives.

A New Zealand professor is reported to have said "that the New Zealand worker is like a mushroom; he is kept in the dark and fed bullshit."

One of the most important things we must remember is that we are communicating all the time whether we are saying anything or not.

I remember when I joined the Department of Trade and Industry I was told that I should join the superannuation scheme and when I asked for information about it I was given a small pamphlet which had a picture of a retired public servant and his wife weeding in their garden.

When I opened it I found that it was still written in pounds, shillings and pence and the examples quoted bore no relation to my salary so that they were completely irrelevant.

Now this gave me a message and it certainly didn't indicate that I was joining the swept-up modern go-ahead thrustful department. Even when we give out a pamphlet we must make sure that we are giving the right message to the person concerned.

In many ways we have entered the picture age and many of our work-force will have read more comics than any other form of literature so perhaps the time has come for us to use pictures to convey messages more than lots of printed words. I saw an Army instruction pamphlet recently on the storage of goods in temporary



outside stores and the complete text consisted of a number of cartoon drawings showing the right and wrong way to do things. This may well be the pattern that we need to adopt for communications in the future.

Imagine that we are listening to a conversation between two men.

The first man says: "I have a pet."

Second man: "Oh, what kind of a dog?"

First man: "It's a St Bernard."

Second man: "Is it grown up or a puppy?"

First man: "Oh, it's full grown."

Second man: "Well, what colour is it?"

First man: "It's brown and white."

Second man: "Why didn't you say you had a brown and white full grown St Bernard as a pet in the first place?"

First man: "Why doesn't anybody understand me?"

I know this is a silly conversation, but if the first man had thought about it he could have given a complete sensible statement when he opened the conversation which would have saved a great deal of time and effort in communicating. In fact he only got his message across because his listener took the time and trouble to ask questions to get a completely defined answer.

Sometimes people are reluctant to pass on information. After all, information gives you power and makes you feel important but if you pass it on then others will know as much as you know and you have less power and less importance.

This idea of keeping back information is one of the main difficulties that we have in getting good communication. Some of you may be called upon to chair meetings at different times and one of your main jobs is to gain the confidence of the committee to such an extent that they are prepared to put all the information they have on the table for consideration.

Sometimes the difficulty is that we can't catch the listeners attention. In our department we have a photocopier and each division thinks it has the secret of making this machine work better by kicking it in a different place. Our operator put notices all over the machine and none of us took any notice of them until one day I went to the machine and found this notice had been stuck on it.

**"ACHTUNG!**

**ALLES LOOKENPEEPERS!**

Dies machine is nicht fur  
gefingerpoken and mittengraben.  
Is easy schnappen der springenwerk,  
blowenfusen und poppencorken  
mit spitzensparken. Is nicht fur  
gewerken by das dummkopfen.  
Das rubbernecken sightseeren  
keepen hands in das pockets—relaxen  
and watch das blinken lights."

Now the first reaction to this notice is "what the hell is it all about" and I watched everyone who went into the copy room read the notice to try to establish what it was trying to say.

At least the message was read and I believe that no one kicked the machine for a whole day so that perhaps it had even been understood.

Sometimes we cannot escape the written word. We all have to put in reports or write something or other. Sometimes we can get carried away when we take up our pen and start to use too many long words and too many long sentences. I have found the fog index to be extremely useful so perhaps you would like to try it for yourself.

### **COMMUNICATION: CLEAR OR FOGGY?**

How clearly do you write? Do you use short sentences and simple words?

In any report or piece of correspondence the measure of your clarity may be assessed by applying it to the fog index.

Take a sample sequence of not less than 100 words, then:

Let (a) number of words is 108. The number of sentences is six. This equals (a) 18 words per sentence.

And (b) number of hard words\* per 100 words, (e.g. 12). \*Words of three syllables or more, excluding proper nouns, words ending in (ed) or (es) or hyphenated simple words.

Then  $0.4(a+b) = \text{the FOG INDEX}$  (e.g.  $0.4 \times (18+12) = 12$ ).

The higher the index the more fog there is in the written material, and the more chance that your message will not be fully understood.

**RATING:** Fog Index of 17 or over — you are writing for graduates, who are only some 6.5% of the population.

Fog Index of 13—First year University student level, some 10% of population.

Fog Index of 11 — School Certificate level, some 50% of the population.

Fog Index of 8 — Form 3 level, approximately 95% of population.

Most of us use a fairly small vocabulary, usually about 900 words. The better educated you are the more words you know and use regularly so that we really need to think about the audience we are addressing with our communication and tune it so that they can understand it easily. So think about your audience, write down what you have to say, and then try the fog index to see whether there is a good chance that your message will be received and understood by the audience that you have selected.

Now we have tuned our message so that it could be understood but if we are to get successful communication we really have to understand the other fellows point of view. If you think of a worm looking up at an elephant he has



a completely different point of view to the man looking at the side of the elephant. Now if you wanted to describe an elephant to a worm your description would not make sense unless you had started by describing the bits of the elephant as the worm saw them, you would need to understand his point of view. This is true of most of us and many of the issues that we talk about we will look at from different points of view. Unless we take the point of view into account our listener will switch off when he stops understanding and our message will not get through.

Before we leave communication we must take into account the use of the telephone. How many of you have tried to ring work and ask for the Noxious Plants Officer?

If you do, does the girl in reception or the telephonist know how to find you and where you are? I have noticed that the telephonists in Agriculture and Fisheries start speaking before they plug in the jack plug so that instead of the caller hearing "Agriculture and Fisheries," he tends to hear "Fisheries."

This, in itself, is such a shock that he often forgets to ask for the person he wanted and this in turn frustrates the telephonist. Sometimes the tone of voice can grate on the telephone and I have been surprised at the number of people who will engage a telephonist because she is good-looking and highly qualified and yet do not ask her to speak on the phone before they engage her.

It is worth remembering that the first contact with a potential customer or client is often through the telephonist and she has enormous

power to create a good impression or a bad impression and this needs thinking about, and perhaps some additional training for people who use the phone.

I have always been intrigued to see people use the telephone and waving their arms to indicate the length of something. They seem to forget that the person on the other end cannot see what they are doing and in consequence the communication has just broken down.

Many of you will be asked to address meetings about the control of weeds. Many people will give you advice on this but in the end it will be your own personality which controls the things you say and the way you say them. If you have an opportunity it could be worth joining Toastmasters or a debating society of some kind because you will quickly gain confidence on your feet if you join this kind of organisation.

If you have an opportunity to go on a public speaking course you may be given the opportunity of observing yourself recorded on video tape and while this can be a painful exercise it can be very useful in polishing your performance and giving you the confidence to speak to large audiences.

Communication is the art of transmitting a message to a receiver in such a way that your ideas are transmitted to the receiver and understood. The key to this lies in thinking about what you want to transmit, gaining the attention of the receiver, understanding his point of view and tuning your message to it.

Above all, remember the KISS principle:  
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# Pesticides and Environmental Effects

MR ADRIAN FOLEY, AGRICULTURAL CHEMICAL BOARD.

MISS CATHY WALLIS, ENVIRONMENTAL AND CONSERVATION ORGANISATION.



MR A. FOLEY

Pesticides and the Environment — this is a very wide subject and we can only deal with some aspects of it today.

No doubt, though, you will have a lot of questions you want to ask and perhaps we can deal with a lot of matters there.

First of all, I would just like to point out, although you probably know, that the Agricultural Chemicals Board is responsible for registering agricultural chemicals and no chemical can come on the market until it is registered.

Some people seem to think that manufacturers just put a label on the product and away they go and start selling it — this is not so. They must be registered.

Now the Board's prime function is to ensure that agricultural chemicals used in horticulture and agriculture are efficient and used safely. It is true to say that legislation-wise there is no provision, statutory provisions that is, for environmental effects to be taken into account. However, the Board does do this as part of its registration process and does keep chemicals under review.

For quite a number of years now we have had a committee called the Fish and Wild Life Committee which hasn't met in recent years but certainly was very active in the early 70s and before that time and then they were considering chemicals like DDT and Dieldrin; the toxic organic phosphates were coming on the market. These were known to be fairly hazardous to birds

so there were quite a lot of matters relating to insecticides which the Board was looking at. But so far as herbicides are concerned, we haven't over the years had too many problems, or any apparent problems, with environmental effects.

Now, years ago, it is true to say there wasn't the sort of data requirements for registration that are required these days and, in particular, toxicology testing; there is no doubt about that the number of toxicological tests that are done today are quite more extensive than they were, say, 10 years ago. And it has got to the extent where this sort of testing is just as much for drugs that are used for human consumption.

So, when we are talking about chemicals that are coming on the market today, there is a large data base on which registration is based. Where we are dealing with waterways, and if any of you were at the conference last year you will recall I gave a talk on this, particular attention is given to chemicals that are used in waterways and here particularly, herbicides come under critical examination and we would need a lot more information than we would for a herbicide that is used in a purely terrestrial situation.

But with all this sort of testing that is done and what effects are shown, we can never be absolutely sure what the effects on man are going to be and this is quite often the problem of determining the toxicological information as it relates to humans because, after all, chemicals can't be tested on man, they must be tested on experimental animals so then an interpretation of that data has to be done to find out what the probable effects are going to be on man. And this is where the regulatory authorities perhaps cross swords quite often with environmental groups.

Now, as I said before, we haven't got time to deal with all the properties of pesticides, and what you would be more interested in would be herbicides, but there have been some studies done with chemicals to try and find out what sort of environmental effects they have and in the U.S.A. some years ago they applied massive quantities of chemicals, far in excess of what label recommendations are, and had a look at the vegetation and how that was affected over a long period of time and they found that, given time, and the study went over 14 years, that the species that were present at the time of application, were killed off, but those plots did show a regeneration of the same vegetation.

Similarly, in the U.K., they were concerned



about what would happen if herbicides were applied time and time again, particularly residual chemicals, and whether there would be any build-up in the soil, and this study showed no such build-up.

Right, if we just deal briefly — what happens to herbicides in the environment? What sort of actions do they come under when they actually enter into the environment?

The first thing that happens they are going to be absorbed by the target plants and they are either going to be changed within the plant or remain there, but more often than not they are changed to simpler chemicals.

The next point is that, to varying degrees, they are subject to volatilisation; some chemicals of course, are more volatile than others, things like Trifluralin are very volatile.

Another effect that they come under when they are applied is photo-chemical decomposition and here ultra-violet light breaks down a lot of chemicals.

It was interesting that a few years ago we had an aerial application of 2-4-5-T; the effect of the study was to actually find out how far it would drift in given wind conditions. One thing was found that within about two hours about 50% of the 2-4-5-T that had been applied had been degraded. This was due, it was felt, to the action of ultra-violet light.

When chemicals do eventually make their way into the soil, then they are subject to other factors and one of the main ones is absorption, that is sticking to soil particles; some herbicides don't do this, but certainly a number do and particularly Paraquat and Diquat.

As soon as they are applied to the soil these positively charged chemicals are absorbed on to soil particles. Also they are subject to organic matter; a lot of chemicals are bound very tightly to organic matter and this has a great significance in cropping systems.

Many, many chemicals are, to varying degrees, absorbed on to organic matter and rates have to be adjusted to account for this.

Chemicals can also be dispensed with in the environment by surface run-off. Now this is something that is quite often put up as a way of lakes and streams becoming contaminated. But by and large chemicals are going to be fixed in the soil unless there are abnormal conditions operating like flash flooding, then you wouldn't expect much chemical to get into surface water.

The fifth one is leaching; now this depends upon the soil type you are dealing with. Under light soil conditions there is a possibility of leaching and chemicals getting into ground water, particularly where the chemical applies is a soluble substance.

The last one, which is perhaps the prime one, is biological degradation. Now all chemicals when they enter into the soil are going to be acted

upon by soil micro-organisms. More recently, when we were looking at a herbicide and why it was failing, it was found that it was actually being used as a food source by the micro-organisms in the soil.

Just harking back a bit to what I was saying before about toxicological testing, we should really mention that there is no such thing as absolute safety; a lot of people feel that chemicals should prove to be safe; well, safety in this sense is just a myth.

You cannot prove that something is absolutely safe; you can certainly prove that it is not safe or has varying degrees of safety but can't prove that it is absolutely safe. However, with all chemicals that we are using and the Agricultural Chemicals Board is the body responsible for regulating the use and sale and so on of chemicals. Commonsense should prevail in the application.

Now no situation where you are very close to houses, and people are very sensitive about chemicals and particularly the notable one, 2-4-5-T, perhaps in those situations other measures can be adopted such as cutting or crushing or something like that, rather than using chemicals.

We always put this plug in, but we feel that wherever possible chemical applicators should be used, that is registered chemical applicators should be used for applying chemicals. These people are well versed in the actual application of chemicals and they should be used.

Another thing, dealing with this item of commonsense, is for label directions to be followed. Now we appreciate that a label can't hope to cope with the whole spectrum of chemicals and all the possible contingencies in which they could be used but, wherever possible, label directions should be used, should be followed.

Just a brief thing, no doubt in discussion you will be asking questions on 2-4-5-T, but some people ask us — well, what is the future for 2-4-5-T?

Well, we are not clairvoyant but certainly at this stage the Agricultural Chemicals Board with all the information it has had so far can't see any reason to put any further restrictions on its use.

In the U.S.A. there has certainly been some actions taken there, some of the use of 2-4-5-T are suspended, in fact, 74% of them, cancellation hearings are expected to be conducted, which might take two years, and at the end the U.S. authorities may ban the use of that chemical in the country.

If that did happen we would be under quite a lot of pressure too, irrespective of the issues that were raised there and a lot of them are political, we would be under pressure to ban it here.

More recently we had studies referred to us that were conducted in Sweden where they did a survey of people who had been using phenoxy



chemicals, not on 2-4-5-T, but 2-4-D, MCPA and all the other phenoxyes and they showed that within this group of people, when they matched to-control groups, that there was an increase in the amount of what they call Somatic Sarcoma or soft tissue cancers.

Now this is a very complicated study and the Agricultural Chemicals Board recently set up a specialist committee consisting of doctors, epidemiologists and toxicologists, to have a look at it and see if there is any significance in it so far as human health is concerned. □



MISS C. WALLIS

**CHAIRMAN:** *Thank you, Adrian.*

I now have much pleasure in introducing Cathy Wallis to speak on the environmental side.

**MISS CATHY WALLIS:** Well, thanks very much.

I am from the Environment Conservation Organisation. I am not planning to represent them, we have no particular party line and so I guess I am really here, if you like, as an . . . environmentalist.

There are a lot of people in the environmental movement whom I would disagree with, and who would disagree with me.

I do come from a farming background. I have been very interested in herbicides, notably 2-4-5-T.

Well, I think that Adrian has really talked about quite a lot of the things that I think need to be talked about.

I think that what I want to do in this talk is give you an idea of why people who are concerned about the environment are worried about herbicides. It is a matter of having genuine concern, it is not a matter of wanting to overthrow the capitalist state or anything like that, which is what some people seem to think environmentalists are really trying to do.

It is quite an effort being an environmentalist and I don't think I would like to take that one on.

But anyway, whose business is herbicides? Well, obviously, you have got the makers and the people who are mixing it and the people who are distributing it.

You have got the users, the people who are in farming and forestry, public authorities, people with railway lines to spray the edges of, and all that kind of thing, and then you have got the people who have got a professional agricultural concern or forestry concern with herbicides; like Adrian Foley and Brian Watts, the people like the mass advisory officers who are making suggestions as to what should be used, where, all kinds of people and, of course, yourselves.

Then there are two other groups who have got an interest — I should possibly say whose interests are involved — there is the public who are the neighbours, who are the people seeing it being sprayed by other people, the people who can maybe be affected through the food chain, through water supplies, through a whole host of situations, sometimes accident and so on.

And then there are the other species — there are the people who can't come along to conferences, not people, but the plants and the animals, just a part of the natural . . . system, who I guess are quite valuable in themselves and have a value to us as people, some of which we don't know because there is an enormous amount of genetic material that's in the natural eco system that we haven't ever really evaluated — all the plants, for instance, that we cultivate, only a tiny fraction of the ones that are in the natural eco system are actually in the ones that we cultivate and there are a lot we have never even looked at to see if they could be useful.

So, where do I fit in?

Well, I guess that I consider that the environment and natural eco system are worth worrying about and protecting; some of it's selfish and some of it's not.

And I guess as an environmentalist this brings me to be worried about the natural eco system and so to be worried about people and so there end up being two major areas of concern with the use of herbicides.

One is, how it affects people and the other is how it affects the eco system. When you look at the situation from which people or the eco system can be affected you have got on the one hand the single events, accidents where people are acutely exposed say in villages or where they are handling it, maybe they are making it and something blows up like in . . . or they mistakenly drink it, or whatever, and the same goes for the eco system where suddenly a whole lot gets dumped in the river and a whole lot of animals and plants are suddenly smothered.

Then there is the much more worrisome area which is the prolonged contact through use on the job with all the people who might be using it, there are the people who are neighbours, stock





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and so on who are getting prolonged contact just be being associated with it more than once in a fairly continuing situation. In general it is the acute exposures and the user situation that tends to be best covered by the sort of research that goes on before products hit the market but it is really the longer term effects that are much worrisome; it is the long term effects through low level prolonged exposure to people or to the environment that comes from continual use, that comes from residues accumulating in the atmosphere, soil, water supplies and then there is the secondary poisoning possibility where say a bird or bee or something comes along and has a go at a plant that has been sprayed and you get the sort of flow through of toxic substances into the environment.

One of the other main problems, which I would see as a major problem and it is one which is very poorly covered in any sort of research that goes on before a substance is introduced on the market and this is the whole problem of bioconcentration and bio-accumulation and by that I am getting into fog index where bio-concentration is where an animal or a plant picks up a toxic substance and stores it in its own tissue; bio-accumulation is where that process is continued and through the food chain, plants and animals eating each other you get concentrations of of substances coming through and, for people, it matters in the sense that every time you eat beetroot or whatever, you may be getting a nice dose of you don't know what.

Right, okay, so we are worried about direct exposure through low level usage, residue and the food chain.

Now when it comes to the environment I guess we are worried about broad spectrum damage to non-native species. Most of the species that you people are directing people to get rid of are introduced species; no-one is terribly worried about getting rid of them as such, it is the way in which it is done and we are also worried about, say, the native broom or whatever that gets bowled in the process of bowling the gorse or whatever it is you are after.

One of the other problems with the environment is that very often you may be after one thing, you hit a whole lot of other things and in the process you may be after say, plants, gorse, but you may be bowling other plants, other insects and those other plants and insects may hold the ecological balance and, for instance, 2-4-5-T wipes out broom, that broom may be the habitat of some bird or some insect that plays a fairly vital role in that native eco system.

There is also the problem of aquatic eco systems which Adrian referred to; things that get in the water can travel a long way.

We then look at the hazards to people. Adrian has referred to the toxicological side of

things where you get acute or sub-acute effects but what we are really concerned about more because it is much harder to pick up in pre-market research is the sort of thing that has slow background damage leading to slow internal decay of body organs, long term effects of depression and nausea that can be masking all sorts of other things going on, it may be mutagenic, it may be carcinogenic; the trouble with picking up like whether something is carcinogenic is that it takes a terribly long time.

In the Swedish study that Adrian referred to, they ignored any exposure in the last five years and they were only looking at anything before that—it was very difficult, people are living in very complex worlds, they are exposed to a lot of things and picking up the particular thing that is causing the cancer can take much longer than most people are prepared to wait to have a product introduced on the market and it is this problem of introducing "nasties" if you like, very toxic substances to the environment where people don't know what they're going to do that is of concern to us.

I think anyone who has followed the 2-4-5-T debate will be aware that toxic substances can have effect on various reproductive parameters; it has been alleged that 2-4-5-T lowers male fertility.

Oregon or LC2 report came out with suggestions that spontaneous abortions had arisen because of that.

Well, I am not going into those particular questions at the moment but these are the sort of concerns. Then there is also the problem as we have with say organic chlorines with bio-concentration where toxic substance like DDT gets in a fatty tissue and only when you call on that fat when you are in a state of illness or stress that you start getting poisoned right at the time when you don't want to be getting poisoned, you want to be getting better.

We then get on to Adrian's point of, can we know? how can we know? how are you going to tell about all these problems? And the answer is, as Adrian said, very often you can't know.

You can only know that something is more or less toxic or there is likely to be a problem. Before you market something, you can have laboratory tests, autopsies and so on with controls and try and extrapolate some rats and guinea pigs to what happens with people but different species have different sensitivities.

You can try and extrapolate from the known chemical form of a particular chemical in relation to the other chemicals that have been around that you do know about.

Once it is on the market you can do direct analysis of people by analysing tissues. You can have epidemiological evidence and I think with a lot of the studies that have been done we would say that there has been a great deal of research



that yielded very little and the sort of epidemiological studies that should have been done one, say contractors, or people that have used it, haven't been done.

The Swedish data is one of the few to be actually directed at the people who have used it and, hey presto, there it finds that if that data is correct, you have got six times the chance of getting a cancer of your soft tissue than you would if you hadn't.

Okay, that data may not be right, but that's the sort of thing that should be looked at. I think that you have, for instance, a promise by I.W.D. that they will withdraw 2-4-5-T if it is proven to be unsafe, we get back to Adrian's remark — what do you count as proof?

It is one of those things that you inherently cannot prove to be safe; you may show to a fairly high degree of probability that it is unsafe.

Again, we get on to the labels question and this question of labels I think is one that I as somebody who has used it in a farming situation on a development block a lot of the labels are just plain . . . unrealistic; they tell you to use gloves, to use all sorts of protective clothing, maybe have a face mask which when you're out there in the scrub chasing gorse with a whole lot of heavy hoses in the summer, you are not going to use, and I think equally if you are in a back paddock, running up and down hills you are not going to be wearing all this clobber.

I think that the chemicals you are using should be made so that they are safe in the likely situations that people are using them.

It is one thing to say, well, if you had followed the label claims, it would have been all right, but the fact is the label claims, anyone who has been in the situation will know that they are unrealistic and it seems to me just a convenient let-out for the chemical companies to put on unrealistic label directions.

What about the benefits? Why do these environmentalists not see that these herbicides are necessary to the country, they help the balance of payments through the exports they generate, they give people cheap meat and wool and food and, you know, what's all this fuss about — don't they see that we know there are costs but there are benefits as well?

I think if we are to understand the sort of debate that goes on we are going to have to look at who gets the benefits and who gets the costs, and you will get the farmers and foresters who find that something is much cheaper to use if they put it on chemically; you get the nation with its export earnings and its increased national income; you'll get the public with cheaper food and you'll get the hungry in the world — well, probably they don't actually get all this cheap food because by and large the sort of meat and wool and stuff that we produce doesn't go to the hungry.

There are also costs — to the farmer, chemical is pretty expensive but it may be a bit less expensive than alternatives; there is the cost to the nation in the foreign exchange it costs to import the raw material and then there are all the other species that might get bowled, but who knows or cares?

And then we have got the loss of production from species that are destroyed, the lost genes and the loss of exports through contaminated products. And then there is the health effects.

On the national scale we have got these costs of monitoring things and health charges, on the personal scale we have got somebody who either is, or thinks they have been damaged by a chemical and they have got to put up with that personal damage to their health — it may be illusory even but they are still going to be worried, they are going to fear that it is going to be like that — and then of course there is the next generation that has inherited a whole collection of unknown problems, problems that didn't emerge until later when we have taken the benefits and they pay the costs.

Okay, and we also have to think about how long these benefits and costs go on. Probably a lot of the benefits in terms of increased production and increased income will be dissipated fairly fast but the costs may stick around in the atmosphere and the soil for a long time.

And I think anyone who is in the farming industry has to see that for a member of the public whose frightened about the use of herbicides in the environment around them, is worried say, that their child has been deformed, being told that they are getting cheaper food, and that they are getting exports just isn't going to have much impact and in this debate you can't really ask one or two people to carry any costs in terms of health and to be satisfied because it is earning so many hundreds of thousands of dollars.

So that's in a sense the sort of immediate conflict that there will always be.

The other thing of course is that it is the farmer and the contractor and the forester who makes the choice and not the public, and that again is always going to be the feeling that the public has, but they don't have control, they can't make the choice if they are not asked.

Well, talking to you people, I think that what needs to be done is that general environmental considerations be borne in mind so that when you are making a decision about, say you have got a weed, ask yourselves, is it necessary to get rid of this weed for this land use? If it is necessary to get rid of it, how is it best to get rid of it and when you start wondering about what it best, what is most efficient, take the environment into your considerations.

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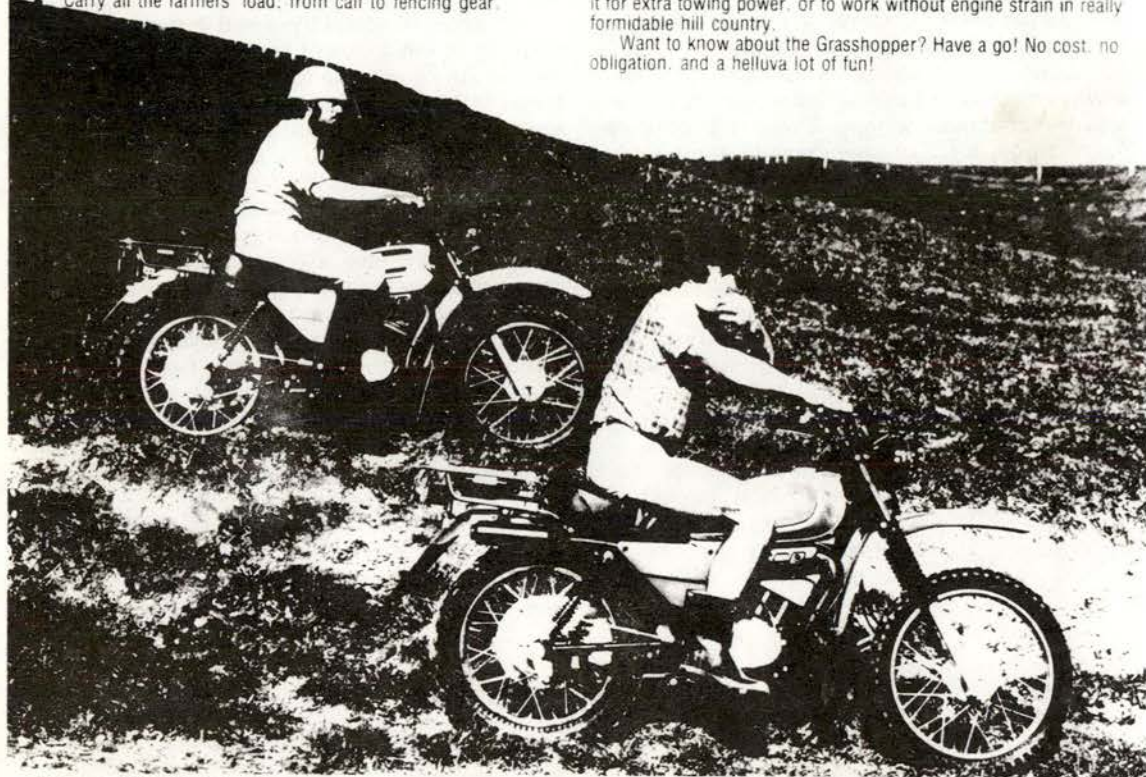
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introducing highly toxic chemicals into the environment, and when you take that into your everyday calculations will we get away from that sort of panic situation that we have got with 2-4-5-T now. When there is a general recognition that these chemicals are toxic and have to be handled with respect.

So, if you must get rid of it, do you have to use chemicals, could you use some other way, could you use say biological control with better pasture management, better fencing, sowing over with something, it depends obviously on what your weed is.

You could possibly consider using mechanical means like chopping or cutting with power saws or whatever, rotary hoes, crushing, whatever.

If you must have a chemical, which chemical should it be? Choose one which it not going to have the worst effect environmentally, if you have got a choice. What mixture are you going to use, what concentration? When are you going to use it? Is it going to be used when it is likely to fly around and get all over the show and not get on your target anyway, which isn't going to be much help to your farmer or your forester.

Look at the weather conditions and there is always a range of possibilities when you come to use the chemical aerially. There is a lot of new technology, a lot of new ideas floating around about using low volume spraying.

There is a great deal that can be done environmentally in terms of the sort of nozzle arrangements, of the size of your droplet, all those things that will affect volatilisation, that will affect how much goes on target, how much goes off target and if there is a mistake, and you won't be the one who is doing it but you will be seeing the guys who are doing it. If there is a mistake there is a great deal that can be done simply in alerting people.

I think it is a bad thing, for instance, that under the insurance system that the pilot is the person, if it is aerial spraying, who is responsible but he feels that if he has told somebody that he has over-sprayed their house

and it might get into their water tanks, it is admitting his liability, and it seems to me that it is important that there is some institutional system that favours socially responsible behaviour and doesn't favour people just quietly hoping that no-one knows because if that guy went along and said, — hey, look, I have sprayed your roof, we better wash it down first and disconnect the water tanks, so many of the problems, so many of the fears than can otherwise be generated can just be got rid of then, but as long as we have them worried about their insurance cover then that situation of conflict of interest will remain.

Finally, if you will allow me, it would be a good thing if you people as co-ordinators of local activity, gave advice on methods to farmers and other users, that will direct them to the most environmentally responsible form of way of doing things and also that you inform central local government of when different policies that are being followed are actually very bad for the environment — you guys are out there seeing it all and it is you who should tell people when you see something going wrong.

In general, about the 2-4-5-T debate, I think there has been a lack of receptivity on the part of the industry's outside fears, it's a myopic sort of behaviour, we want to get on with the job and ignore everyone else but unfortunately that just isn't possible and if you do ignore people you will find that there are these sort of periodic crises, dislocations and panic-paranoia situations; it is much better to have a dialogue all the way.

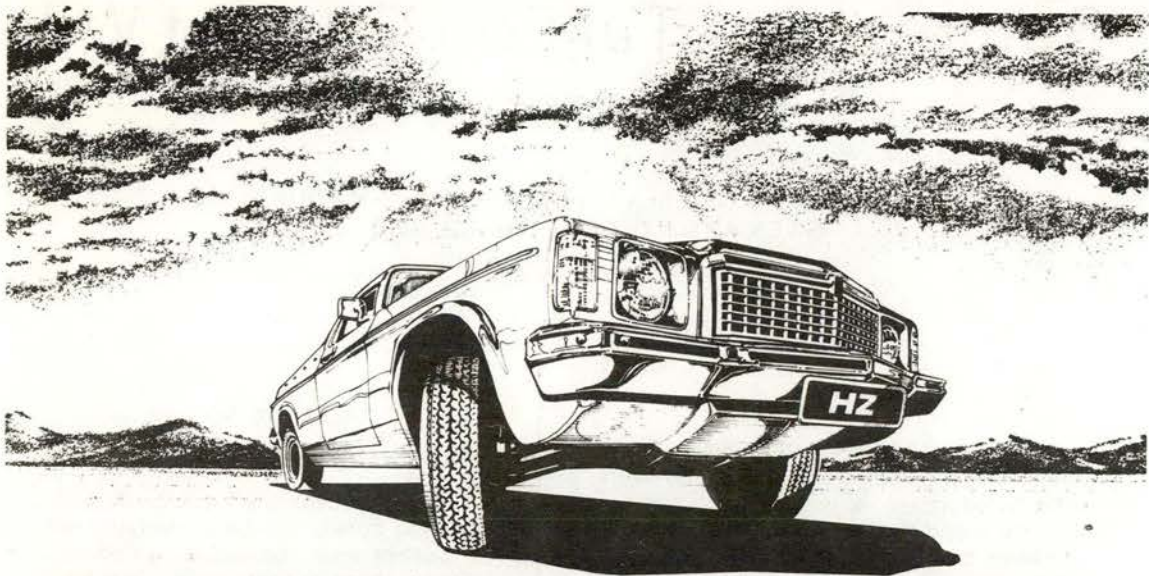
You don't have a divine right to pollute or direct other people to pollute the environment, not even on private land, and I think the sooner that is recognised the better everyone will be and I would say that the Agriculture Chemicals Board should be both independent, and be seen to be independent and separate from the Ministry of Agriculture and Fisheries and totally out of the agricultural fold and until that is done I think there will be a credibility problem.

Outside fears may be right, so take notice of them.

That's all I have got to say in conclusion.







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# HZ HOLDEN KINGSWOOD UTE



# Summary of Talk on Current Weed Research Work

BY P. NEL, M.A.F. WEED RESEARCH GROUP,  
GIVEN AT N.P.O. CONFERENCE, APRIL 29, 1980.

By M. J. Hartley and A. I. Popay

## GORSE CONTROL

A number of aspects of gorse control are being investigated. Some herbicide work on established gorse is being conducted for our education and the testing of new materials and additives, stump treatments, timing of same and timing of regrowth treatments are being done to clarify some points in the recommendations while the major effort is going into seedling control.

We feel that methods of clearing established gorse have been researched fairly thoroughly and that we cannot advance that aspect much with the limited resources available. We see our role in MAF best directed towards the agronomic aspects of maintaining ground free of gorse once cleared. For this we are studying the survival of seedling gorse in pasture under grazing.

## RESULTS SO FAR

### HERBICIDES ON ESTABLISHED GORSE

Table 1 shows the herbicides tested on established gorse and the % mortality at March 1980. Bushes were sprayed to run off and rates used were those recommended and half rates. The half rates were used to increase differentiation between treatments and times outside recommended spraying period used to test value of additives under severe test conditions.

In light of the results there were faults in the experimental design. For example, as additives were expected to enhance the activity of 2-4-5-T was lowered with additives. We cannot be certain, therefore, that the additives other than picloram have actually reduced the activity of

**TABLE 1 — HERBICIDES USED ON SINGLE GORSE BUSHES AND NUMBER KILLED MARCH 1980. TEN BUSHES PER TREATMENT**

Herbicide	G/Litre	Date Applied		
		Jan 1978	July 1978	May 1979
2-4-5-T	0.72	10	0	1
2-4-5-T	1.44	9	5	2
2-4-5-T plus picloram	0.5 plus 0.125	10	2	1
2-4-5-T plus picloram	1.0 plus 0.25	10	2	0
2-4-5-T plus dicamba	0.5 plus 0.125	6	0	1
2-4-5-T plus dicamba	1.0 plus 0.25	10	1	2
2-4-5-T plus TBA	0.5 plus 0.165	5	1	
2-4-5-T plus TBA	1.0 plus 0.33	10	2	1
2-4-5-T plus glyphosate	0.5 plus 0.25	5	0	0
2-4-5-T plus glyphosate	1.0 plus 0.5	9	3	0
triclopyr	1.5	10	1	5
triclopyr	3.0	10	6	10
triclopyr plus picloram	0.5 plus 0.125	9	0	2
triclopyr plus picloram	1.0 plus 0.25	9	2	4
2-4-5-T plus 10% diesel	0.72	8	8	3
hexazinone	2g/bush	6	1	0
TBA	3g/bush	3	0	1
picloram	1g/bush	4	0	2
untreated		1	1	1



**TABLE 2 — HERBICIDES USED ON CUT GORSE STUMPS IMMEDIATELY AFTER CUTTING AT DATE SHOWN AND NUMBER KILLED. APRIL 1980. FIVE STUMPS PER TREATMENT. ESTER APPLIED TO CUT SURFACE AND BARK, AMINES TO CUT SURFACE ONLY.**

Treatment	Date Cut and Treated		
	August 78	Nov. 78	May 79
diesel oil	1+2*	3	4
2-4-5-T ester in diesel	5	4+1*	5
2-4-5-T ester plus picloram in diesel	5	5	5
triclopyr ester in diesel	5	5	4+1*
triclopyr ester plus picloram in diesel	5	5	5
2-4-5-T amine	4	4	5
2-4-5-T amine plus picloram	5	5	5
2-4-5-T amine plus dicamba	5	5	5
2-4-5-T amine plus TBA	5	5	5
2-4-D amine plus picloram	5	5	5
triclopyr amine	5	5	5
triclopyr amine plus picloram	5	5	5

2-4-5-T as was apparent at several assessments during the trial. The trial is being repeated in January, March and May 1980 with constant rates of 2-4-5-T and this has also been rectified.

Triclopyr showed considerable promise, especially late autumn, but diesel oil was the only additive tested worth using for winter application.

The new trial is using 2-4-5-T and triclopyr at equal rates (3) increasing as application made later in the season but always with common overlap rates. The middle rate of 2-4-5-T is also being tested with the following additives: Picloram, dicamba, TBA, glyphosate, diquat plus surfactant, surfactant and diesel oil.

The soil treatments were not very satisfactory. Hexazinone was most effective but leaches badly and on sloping ground caused severe pasture damage. On the edge of the leach area hexazinone killed the pasture but allowed new gorse seedlings to establish free of pasture competition, so we have there a useful herbicide to establish pure stand gorse!

### STUMP TREATMENTS

Two aspects were investigated. The range of herbicides that could be used and the time after cutting that they need to be applied. Herbicides were applied either in diesel oil (1:20 approx. 25ml/stump) to cut surface and bark by paint brush or as neat amine to cut surface only. The idea behind the latter was that control might be obtainable by penetration of water soluble herbicide directly into the trunk and application made by drench gun. In practice our gorse stumps proved multiply branched from the base (having been grazed in their youth) so amine herbicides were brushed on to all cut surfaces, but cut surfaces only (approx. 1.5ml/stump).

Stumps were cut at three times of the year but because of preliminary nature of the trial only five reps were used.

The final results are shown in Table 2. These represent what we believe to be a true effect. A number of stumps regrew from small side branches, probably not treated. Where this occurred and the rest of the stump had rotted it has been scored a kill. Application of all parts of the stump is obviously vital, whether cut surface only or complete cover treatments.

Time of year appears to be unimportant but interim results suggested that amine treatments were less effective in the spring, presumably flushed out by raising sap, but better than esters in the autumn.

Stumps could be treated with 2-4-5-T in diesel up to a week after cutting (longer times not tested) and complete kills obtained. With amines the extended time was less reliable.

### REGROWTH TREATMENT

Preliminary studies have also been made of the effectiveness of spraying regrowth at various stages of development. Stumps were cut at three times of the year as above and regrowth boom sprayed with 2-4-5-T at 4kg/ha. Spraying time determined by size of regrowth, the intention being to spray at 5-15cm, 50cm and November after first flowering. Regrowth was either grazed or ungrazed but times were determined by height of ungrazed regrowth. Because of growth patterns all treatments were applied between November and February and since most regrowth began to flower before it was 50cm high the latter treatments ran together and were used to test lower spray rates. Lower spray rates of 1 or 2 kg/ha were also applied to regrowth 5-15cm high.



Because of the variability of regrowth behaviour replication was insufficient to obtain clear results but the trends were interesting. Treatment was most effective when applied to regrowth 5-15cm. This is in contrast to standard recommendations (Matthews-Weed Control by Chemical Methods) but in agreement with Forestry Research (John Balneaves). If anything, control of grazed regrowth was better than that of ungrazed regrowth. I suspect this was not so much because of the nature of the regrowth at time of treatment as the effect of grazing subsequent to spraying. Chewing, rubbing and general demolition of the tops appeared to enhance kill (see report by Dr Popay).

A very high degree of kill of stumps was obtained when regrowth 5-15cm high was boom sprayed with 2-4-5-T at rates as low as 1 kg/ha. Older regrowth needed at least 4 kg/ha.

### SEEDLING CONTROL GRAZING

Much detailed work has been done following the survival of individual gorse seedlings as affected by pasture species, fertiliser and grazing (published in N.Z. Weed and Pest Control Proceedings 1979, 1980, copies attached).

Main findings were that gorse seedlings survival was:

- 1 Lowest under Yorkshire fog (overwinter — without grazing) or lowest under browntop (under grazing) and highest under ryegrass.
- 2 Reduced by white clover.
- 3 Reduced by phosphate.
- 4 Reduced by nitrogen.
- 5 Lowest under long rotational grazing (sheep) highest under set-stocking but greatly influenced by ground conditions when grazed. Losses high of ground wet when grazed.
- 6 Treading, by sheep, demolished more seedlings than grazing alone. Grazing without treading was more effective than mowing because of the number of seedlings pulled out.

### HERBICIDES

Where grazing fails to control seedlings, herbicides will be necessary. Some work is in progress looking at low rates of herbicides applied to pasture at times after clearing and sowing pasture. Herbicides used were 2-4-5-T or triclopyr at 1.5 kg/ha or 3.0 kg/ha, boom sprayed, and all above plus picloram in 4:1 ratio applied October, December, February or April from 18 months after clearing. Further plots will be treated next year.

Control of existing seedlings, all of which were small (10cm) having been grazed, but some of which were hard, being up to two years old, was very good (99%) except at the low rate of 2-4-5-T.

The low rate of 2-4-5-T gave 75% control in October and 98% in December and February (April not recorded yet). However, the use of herbicides to control gorse seedlings in pasture also increased, by at least two-fold, the number of subsequent germinations. On the other hand, even the low rate of 2-4-5-T used should be adequate to kill much stump regrowth if applied early enough (see above) so that an early low rate spray could be beneficial where regrowth and seedlings are a problem.

### PASTURE IMPROVEMENT

Gorse seedlings will not establish in good, well grazed pasture, as can frequently be seen when well managed pasture adjoins gorse country. The effect of pasture improvement through fertiliser, on gorse establishment is being investigated on a long term fertiliser trial on poor, gorse prone pasture. Fertilisers under test are P and lime both at medium and high rates and the extra addition of K plus and minus N on top of high P and lime. With an Olsen P test of 3 nothing except control is being tested without P. No results yet.





# REVIEW AND OPERATION OF THE NOXIOUS PLANT ACT

MR BRUCE SHALLARD AND MR DON McNAB



MR B. SHALLARD

**MR SHALLARD:** I don't propose to say a great deal, just a few brief comments on how the Act has gone in the last year; the Act has been in force since April 1, 1979, we have the Noxious Plants Council working, the Regional Committees working and the District Authorities functioning; some will argue how all any of them are working but we might discuss a few of those.

The Council has been in force, as I said, for a year, it had the unfortunate death of its chairman, Mr Jack Fitzharris, earlier this year and now Mr McNab is the new chairman.

I started off as its secretary having been involved previously; there was a full-time secretary appointed, she is subsequently moving on to another job for various reasons and there is a new secretary to be appointed shortly.

The regional committees — there are nine of them functioning — these are based initially on the eight Ministry of Agriculture and Fisheries regions, we subsequently split the Nelson-West Coast region in two for geographical reasons.

All these committees are functioning — there again, I think a few of you have opinions on how well some of them are functioning; some have south involvement from your Institute and some have declined.

There are about four areas I just want to mention briefly and then we can go on to questions and answers.

These concern part-time officers, notices, appeal arbitrators and declarations of noxious plants.

First, on the part-time officer scene, the Council has considered a lot of applications — between 100 and 120 applications for part-time officers of all sorts and kinds; of this it approved about 30 — of these only two are sole part-time officers — those being the Golden Bay County and the Chatham Islands County — the rest are additional to a full-time officer, they already have one full-time officer and have had approved one or two or more part-time officers with the exception of one or two who have also had two part-time officers approved to control the thing in one county.

There are one or two other ones, such as Cheviot and the West Coast, that have got interim approval for part-time officers while other factors are sorted out.

There has also been quite a large increase in the number of full-time officers; the amount of subsidy the Government has paid out on your salaries has jumped considerably this year which I guess is partly to do with the urban authorities being eligible for the subsidy but I think a lot more counties have got full-time officers.

Moving on to the serving of notices, this is causing concern to a lot of district authorities — there have been a number of opinions expressed by lawyers and county clerks and everybody else as to whether the notice provisions will work or not.

The Counties Association has had an opinion done for it which I have here which sets out very clearly to me that the notice provisions will work but they will require, as was anticipated, the steps to be taken to be specified in the notice and that just to suggest to a farmer that he has to control his particular noxious plant is not going to be sufficient.

Of course, none of this has been tested in the Court but I would be interested to hear your views on this.

On appeal arbitrators, which is the other end of the notice, if things don't go right, we have 17 arbitrators appointed so far around the country — there are a few gaps still to be filled but in this we are in the hands of the Law Society which is seeking nominations from its District Law Societies and some of these are quicker than others but we would anticipate having these all filled in the next little while.

The other thing I want to talk about is simply declarations — just to bring you up to date where



the Council is with declarations.

The Class 1A — the only one so far is Johnson Grass which you will be aware of. In Class B the Council has declared 18 noxious plants Class B throughout New Zealand, 11 others in various parts of New Zealand and two more are approved and waiting to be Gazetted. There are another 10 or so that have been deferred by the Council for more information from its technical people and will be coming back for further consideration. It has rejected 19 requests for Class B status as they didn't consider they merited classification.



MR D. McNAB

**MR McNAB:** Bruce's experience in this, of course, is very extensive and away back in 1972 when we were on a Committee of Inquiry he was finally our secretary full-time; then, of course, through the advisory committee later on he was taking a very active part in it.

He's still seconded to the Plants Council for the purposes of helping us with our financial considerations plus all the extensive experience that he has had listening in the main to the submissions on the Bill when it was before the Agricultural Select Committee and particularly assisting with the compiling of the legislation which did in effect, we thought, translate into legislation the sort of things we talked to the Government about at the end of our inquiry and which the Government virtually accepted in total, and which was widely commented on by people employing you folk as noxious plants officers and also a great many other sectors that were virtually interested in it.

So the whole thing really now has been an Act since April of last year, as we said this morning in my opening address.

My involvement in the thing of course has been through that period of time and as a farmer representative, but what I am thinking

particularly of is to get a theme of consistency in the decisions that we come to in the next several years and really probably in the first year or two we have got to be in this communication thing — we have got to talk to you people, we have got to talk to a lot of other people as well, so it is vital that we hear what your thinking is with respect to problems that you see arising.

I don't say that we will always be able to say "yes" to all your propositions, but I think when we say "no" we will endeavour to explain why we say "no" and why it is not possible to implement these things because we are looking at it in the wider sense and we are looking at it from the interest point of view of a lot of other people besides just the farmer interest or the immediate interest of the local authority or the district noxious plant concern — so it's a wider theme and we have got a lot of people that we can refer to in the research sector.

I would like to come back to the questions now because I believe that some of the questions you raise will bring us out further and we can talk about the sort of policy things which we are dealing with.

**THE CHAIRMAN** then asked for questions.

**MR HOULAHAN:** Mr Chairman, I would like to ask the panel in regard to statutory notices, in the old Noxious Plants Act there was a specified schedule drawn up for either a public notice or a statutory notice.

In the new Noxious Plants Act, there is no allowance made for this whatsoever. Now, under the direction from our county solicitors, we drew up a statutory notice which was felt by the legal firm to be compatible to the requirements under the Noxious Plants Act; however, on comparing this statutory form of ours with other district noxious plants authorities there was a vast difference in legal terms and, you know, in some cases, in formulating these statutory notices, there had been debts incurred of up to \$150, perhaps to the local District Noxious Plants Authority.

Now I am wondering why something couldn't have been drawn up as a standardised form under the Noxious Plant Act throughout New Zealand rather than have this variation between each Noxious Plant Authority.

**MR SHALLARD:** Yes, this question has arisen before. When the Act was being drawn up we were told that you shouldn't have a form of notice in the Act because the one that was in the old Noxious Weed Act was defective, it didn't work for a lot of local authorities and they would rather draw up their own.

That argument won the day and there was no notice put in the Act. Since then of course, we have been told exactly the opposite, that we



should have put a Notice in the Act because local authorities need the guidance.

The Council hasn't drawn up a Notice, it has looked at various ones that have been drawn up by local authorities such as the Banks Peninsula one which it has had referred around the country as an example of what could be done, but there is at the moment no specific form of Notice drawn up.

It is up to your own Authority to draw up what you think is most appropriate.

**MR STAPLES:** Mr Shallard, could you tell us who pays the difference between the \$10 appeal fee and the fees the arbitrators are demanding.

**MR SHALLARD:** The answer is the District Authority meets the difference between the \$10 and the \$75 per half-day that is being talked about as the arbitrator's fee.

As I have explained to other gatherings like this, when the Act was passed it was thought that the word "costs" covered all the costs of an appeal, including the fee of the arbitrator.

This we found was not to be the case, that "costs" simply relate to the actual costs of holding a hearing in the building, like a magistrate's court costs, it does not cover the fee that the arbitrator is paid and therefore the only body that can pay it is the District Authority which issues the Notice.

Now I understand the Counties Association is to make some representations on this, I think it is an area that might well be looked at in the future; it also relates closely to the \$10 fee for filing an appeal.

In the draft Bill we had a \$50 fee for filing an appeal, which in our opinion would have stopped frivolous appeals but the politicians thought fit to think that was negating the course of justice and it would stop people having the right to appeal — that it would be too expensive; they therefore reduced it during the Select Committee Hearings to \$10.

Now, that doesn't quite tie in with the fact that we have now got Appeal Arbitrators being paid \$75 a half-day.

It is an area I think that could be looked at in the future but at the moment it is very definite that the District Authority has to pay that.

**MR PAUL HATTON:** What I would like to know is how binding is this Act on the Crown? It states quite categorically in the Act that it is binding on the Crown but we have seen a letter from the Attorney-General which refers to the Soil and Conservation Act which is also binding on the Crown and a Magistrate threw it out.

**MR SHALLARD:** As far as we are concerned, it is binding on the Crown; we would anticipate that the Crown will do what is required by the

Local Authority in whose area the land you are dealing with is on but we do not envisage it going to a Court situation and I think you should look at in those terms rather than attempt to prosecute the Crown.

I don't know what the answer would be if you did attempt to prosecute the Crown except the Act does say it binds the Crown and we have a very definite assurance from the Lands and Survey that all Crown land will comply with the provisions of the Act; that's really all you can say at the moment.

**MR MARSH:** I would like to get back to the appeal provisions which you brought in about the \$75 per day.

I think a lot of the heartache of the D.N.P.A's has been the fact that the \$75 per half-day which is worse, which must be paid to the District Noxious Plants Authority. I would have thought it would be far better for the Council to have come down with a decision, or recommendation, to the Arbitrators that if the appeal was upheld then the D.N.P.A. would have to pay the fee, if the appeal is turned down then the appellant would be up for all the costs.

You know, at the moment I mentioned to my D.N.P.A. when we came down with our estimates only about three weeks ago — what are you going to allow — we have got 175,000 occupiers in our District Authority — if we end up with 20 half-day appeals, we are talking about \$1500 which we have not allowed in our estimates for — we have allowed \$300, hoping we don't get any I suppose — that's what they've decided, but I don't think it has been looked at carefully enough and this is what I said before, I think there has to be some good guidelines coming from the Noxious Plants Council down through to the District Noxious Plants Authorities on many aspects of the Act and especially in this appeal provision part.

**MR SHALLARD:** Certainly on the appeals, I think we would share some of the concern you have expressed and as I said I understand the Counties Association is to make some approaches on the matter.

The situation is not quite as we envisaged during the passage of the Act, and whether it needs amendment at some later date, I don't know.

There is a good argument, of course, in favour of the fact that the District Authorities should bear the liability of paying for the appeal as it is the Authority that issues the appeal notice.

I am not saying I agree with that view but that presumably stops local authorities being unnecessarily free with their notices when they could perhaps use other measures to bring about control of noxious weeds.



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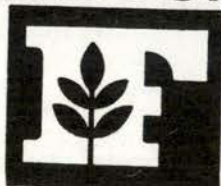
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**MR FAWCETT:** Mr Shallard, Mr McNab, I must read these things differently to other people but it says quite plainly in sub-section 5 of section 52 that the arbitrator may affirm, vary or cancel requirements, etc., etc., and proportion the cost of the appeal as he thinks fit between the appellant and the district authority.

Now, in my book, that means that the Appeal Authority will apportion the costs as he sees fit, or anyone else sees fit, and D.N.P.A. will naturally have to pay him, but if they get a decision favourable to them, surely they will get the costs of the appeal — that's the way I read it.

Now, whether I am right or not I don't know, so I don't think there is any problem.

**MR SHALLARD:** I think Mr Fawcett that you and I read that exactly the same way, but unfortunately you and I are both wrong.

We, as I said before, during the drawing up of the Act, and when it was passed, considered that the words apportioning costs of the appeal, covered the whole damn cost of it, but we are subsequently advised by legal people, the Law Society and everybody else that does not cover the cost of the Appeal Arbitrator's fee; it covers the actual cost of having a shorthand-typist take down the proceedings, it covers the cost of hiring a room, if you have to hire a room to hold the appeal — all those sort of minor things — exactly the same as from a Magistrate's Court if you get apportioned costs, that covers the actual costs of holding the appeal, it doesn't include the cost of the Magistrate's salary so unfortunately we were wrong in the way it was drawn up.

Now I believe the Counties Association is going to come back and complain about this and they have some considerable justification in so doing, but at the moment that's the way it is, that the Appeal Arbitrator's fee is not included within costs.

**MR TURNER:** Some time ago I sought Class A classification for Spartina Grass in the Wagowite Estuary. I was informed that a committee had been set up to look into Spartina on a New Zealand-wide basis and since I have heard nothing back.

Can the Committee inform me on what has been happening there?

**MR SHALLARD:** Spartina is a little difficult and a little different from all the others in that it is a plant of estuaries and tidal flats and comes within the jurisdiction of the Harbours Act unfortunately, which is our friend the Minister of Transport's portfolio.

There is a committee set up under the auspices of the Transport Department that we are pursuing to try and get them to make a decision but at the moment it comes under the Harbours Act — the use of exotic grasses planted

in estuarine areas; it has not yet been clear whether we would have the power to over-ride that and declare it a noxious plant in terms of the Noxious Plants Act, but it is being pursued but so far with no result.

**MR McNAB:** I would just like to make some reference to the first question and to clear up any misapprehensions which you people may have about this classification thing.

We have been under some pressure to resolve this classification business now, probably since October or November, and with the Christmas thing coming in we hadn't got too far and I don't believe we have really got quite as far as we should have done, but we are trying very strenuously to deal with the aquatics and to deal with these very urgent ones that are coming up.

I just would like to get you to recall that away back when we looked at this through the Committee of Inquiry, one of the messy things we saw in the whole spectrum of weeds was that Counties had hundreds of weeds on their schedule and we thought at the time when we had been right throughout the whole of New Zealand and with the advice that Arthur Healey could give us in his lifetime of living with weeds that we could do better than that, perhaps it might be better, and I am saying this very advisedly, and I am sort of talking as an individual with that sort of background, perhaps we could do better, if Counties, or District Noxious Plants Authorities as they now are, might deal in fact with a few weeds but have a fast track, if you like, back to the Plants Council to get the sort of ones on a B classification or an A classification as required but a fast track for the urgent ones but have a few, and a limited number, which they were prepared to give us programmes for dealing with either to eradicate or control and when that sort of thing began to seep through into the District Noxious Plants Authorities' thinking then it may be in the question of funding which we have again the responsibility to administer, that we in fact could give funding to those District Noxious Plants Authorities that could come up with such an operation but we don't think that it is anything else but messy — at least I don't think it is anything but messy to have a whole series of weeds on a District Noxious Plants Authority schedule when in fact they have never had them, they have got no intention of proposing any programme to in fact control them and, you know, what's the point?

We are going to very quickly get back into that same proliferated list unless we watch it and this is what we are looking at.

**MR CHILDES:** Australian Sedge in particular, I think myself personally. I have viewed it up in the north and I have viewed it around the Auckland area and we have one farm



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n our own area and we would have a good 100 acres left on that farm; certainly it is subsidised but I still maintain personally that it should be an A class weed.

**MR SHALLARD:** It is very difficult to say off the cuff why things are or aren't, I think that Australian Sedge does not meet the class A category in that it is far too widespread.

Class A is not intended to be used to cope with widespread plants at all; it is aimed at those that are of a very small nature, are critical to the economy perhaps or are going to adversely affect the farming economy if they spread.

I think Johnson Grass fits this category very well. I think even if we were looking at Johnson Grass now, it might not quite reach the Class A criteria now as that when it was declared there were known to be half a dozen infestations which were very small, I think now we have 30-odd of them spread over a wider area than we envisaged so if it was considered now it might not be declared Class A but I think Sedge falls down basically on that, that it is far too widespread to be declared Class A; it certainly deserves, because of its severity, a specific type of subsidy assistance which it gets and there is no suggestion of that being reduced or changed.

**MR FOSTER:** I am just wondering how they can justify having only one Class A. . . . My understanding was that Class A weed should be a weed, a very bad weed with a very small infestation that could be cleaned up very quickly and we were very careful when we sent our list in and we included, for instance, water hyacinth, which we didn't have, as Mr McNab just said, About three weeks ago I found a hectare of it and that's the reason why we think water hyacinth, naturally now, because I have got a vested interest in it.

That's what Class A weeds are all about, and why they should be and you might hear about it eventually. I would like some indication of how they can justify only one.

**MR SHALLARD:** I don't think the Council intends to justify only one; it has as yet only declared one, but it is actively working on the declaration of a number of others as Class A, as water hyacinth, water lettuce, salvina, a thing called coltsfoot and there is another one which is a terrestrial weed which is growing north of Gisborne — sessam — the other one which is being considered as Class A so you have got about six or eight there at the moment which are being considered; you will be aware that as the Government is going to pay for the entire cost of eradicating those plants, our friends in the Treasury require some good justification for spending the money so that is why Class A declarations are going to take a bit longer.

There is money provided within the estimates of Agriculture and Fisheries for Class A declarations and it is intended that they will be pursued this year with the intention of having most if not all, of those particular weeds declared Class A.

**MR PEARSON:** Prior to leaving Christchurch in mid-December I saw a circular letter relating to the declaration of fennel in urban areas. Now I arrived up here in Featherston County; they had made application for fennel to be declared a noxious plant, they had not received the communication that was received in the south and that is exactly the same communication that was in Christchurch prior to, well in early December, did not arrive in the Wairarapa area until, I think it was the second Friday in February.

Now, I would like to know (a) what happened to the communication? and (b) what is happening about fennel?

**MR SHALLARD:** To answer your first question, I don't know what happened about the communications; the request left the Noxious Plants Council heading for the nine regional committees all at the same time; obviously one was a lot quicker than the other, but I can't really answer why it took so much longer to get from the Hastings Regional Committee to Featherston than it did from Christchurch to your old County.

The second thing, on fennel, we are still receiving answers from district authorities about whether fennel should be declared; it was started off in the large number of cities in the Auckland Isthmus which wanted fennel declared as a Class B; the Council agreed that it would be appropriate within urban areas for fennel to come within Class B, it didn't really see how it would fit in a rural scene, it wasn't apparently wanted in the rural scene in most cases and it was decided to go out to all regions again to ask them what urban areas they wanted declared Class B in and that is the status at the moment.

We are getting answers which are being looked at by the technical committee and decisions will be made as soon as possible.

**MR McNAB:** To continue the fennel saga, there was a very persuasive young lady, and not so young, either, in the Auckland area who did in fact make some very meaningful representations to our departed chairman recently, Jack Fitzharris, but we have got an uneasy feeling that quite a lot of these local authorities rather regard fennel as not just a noxious plant that it is undesirable, but as a fire hazard.

We think maybe there are pretty good grounds to suggest to them that they can do a better job under their by-laws if that's what they want to control fennel for and, quite frankly, some of our technical committees have



suggested there is a place for fennel; in fact, on some light stony ground fennel has been proved quite effective to hold the soil.

What I am going to suggest to you very seriously is that the Plants Council really feel that the criteria they have spelt out in the Act for all this classification should be the same criteria that you follow, that we follow and we have spelt it out and we have indicated what it is and if you in fact will do your classification exercises when you have need to on that sort of thing and look at it very hard; when we say economic reasons, we mean economic reasons because we look at it from the economic point of view and you have got to look at it much harder than what you have maybe done in the past and you know we are all talking about the same thing then.

When it comes to Class A, the commitment of the State is a very real thing and there is no question that the State if, on the recommendation of the Plants Council, there is a need to declare it Class A, there would be no hesitation on the part of the Minister, I believe, to in fact follow that recommendation.

Johnson Grass being the case in point, much about we did not know when we declared it a

Class A, just what sort of financial commitment there would be on the Government; as it turned out, well, it is no secret, Bruce, to tell them how much money it did cost.

**MR SHALLARD:** Yes, we initially thought it would be \$5000 and I think the figure was closer to \$10,000 spent in the last financial year.

There is one other point just briefly to conclude — this piece of paper has been given to me which I understand has gone to all local authorities, I think, concerning the liability of the Crown, Mr Fawcett has passed this letter to Mr Strickett.

I think that is quite a reasonably satisfactory situation, that he indicates, this is the minister of Justice replying to the County Council that raised this question, he says, it is now generally accepted the Crown may be criminally liable but if that is to be so it must be abundantly clear that the legislator intended such a result.

I think in relation to the Noxious Plants Act, he says — I will accordingly have the point noted for consideration and any necessary action on the next occasion that the Summary Proceedings Act is to be amended will be carried out. □

## Land And It's Erosion Problems

**MR B. HARRISON,** Rangitikei-Wanganui Catchment Board, Marton.

Before moving on to the main topic I thought it may be useful to give an outline of Catchment Authorities, how they fit into the Soil and Water Division arm of the Ministry of Works and Development (as mentioned by Mr Eyles) and give examples of their functions and ways in which there can be mutual benefit.



**MR B. HARRISON**

Catchment authorities, of which there are 17, are statutory bodies comprising a majority of elected members, usually eight to 10, with four or

five appointed members from Government departments.

In the case of the Rangitikei-Wanganui Catchment Board, the following are represented: New Zealand Forest Service, Lands and Survey, Ministry of Agriculture and Fisheries, Department of Scientific and Industrial Research and Ministry of Works and Development.

Funding is by way of direct rating levied within the authority area. This rate covers all operations except actual works (these other functions will be mentioned later). Works are funded partly by the ratepayer receiving the benefit and partly by Government, which is in recognition of the off-site benefit of national interest.

Total expenditure in the 1979-80 year for the Rangitikei-Wanganui Catchment Board was \$2.3 million.

Scientific backing as well as oversight of expenditure and technical efficiency are provided by the Soil and Water Division of the Ministry of Works and Development.



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For practical purposes the authorities working functions are carried out within three broad sections. There is of course, some overlap.

**(a) Water Board**

Which is responsible for water quality, including control of effluent discharge, granting of water rights and allocation of water where demand exceeds supply. The collection of rainfall data, stream flows, etc., overlap into the engineering aspects where the information is also in the design of flood control and drainage works. Much of the operation of the Water Board is not directly related to a works programme.

**(b) Engineering**

Is responsible for flood control, drainage and metal extraction licensing.

**(c) Soil Conservation**

Covers erosion control and prevention, and minor drainage in association with the aforementioned.

Other activities undertaken by the Board but not fitting into a set category, include inputs to district schemes for recommended land use planning, the formulation and carrying out of a programme to control *Pinus Contorta* for the Defence Department at Waiouru, and the administration and management of the afforestation project being undertaken by the Wanganui United Council.

What connection is there between a Catchment Authority and a Noxious Plants Officer? As I see it there are three aspects where an exchange of knowledge would be of mutual benefit.

While these remarks are made mainly in connection with the Rangitikei-Wanganui Catchment Board area the principle will hold for other authorities.

The three aspects are:

- (1) Catchment Authority bylaws and promulgation of Section 34 of the Soil Conservation and Rivers Control Amendment Act 1959.
- (2) The clearing and control of noxious plants on specific, erosion-prone soils.
- (3) Spraying operations.

**Ground Clearance Bylaws/Section 34 Notice:**

A number of Catchment Authorities have enacted bylaws and/or promulgated Section 34 notices.

The Rangitikei-Wanganui Catchment Board have recently done both with a view to preventing erosion through indiscriminate development.

The Section 34 notice aligns to areas in district schemes which have been zoned watershed or coastal protection. Any change of land use, change of vegetation or any development, must be approved by the Board.

These areas are primarily high-country or

coastal and extremely sensitive from an erosion point of view.

They are generally non-productive in a farming sense, however their value lies in the off-site protection given to other productive land.

As far as you people are concerned the problem of noxious plants in these areas is minimal with perhaps the exception of the coastal strip where gorse or boxthorn may be present. It is in the range of land clearance bylaws where you may be affected.

The one enacted by the Rangitikei-Wanganui Catchment Board aims to monitor those operations taking place on slopes over 21deg and carried out by tractors or tractor-operated methods (e.g., root-raking, roller-crushing, bulldozing, etc.) and any associated tracking. The enactment of this bylaw has been thought necessary as a direct result of the recent Land Development Encouragement Scheme.

All vegetation types are covered by the bylaw and the land development scheme, therefore noxious plants are included. While you may not be directly involved with this type of scheme the clearance of noxious plants for control purposes is covered.

Even with this bylaw in operation it does not mean that clearing operations will be prevented. With certain safeguards, often only minor, e.g., the construction of run-off channels to prevent water concentrating and causing erosion, the operation can proceed as planned.

However, in extreme cases the replacement of noxious plants with more desirable, possibly productive ones, e.g., pines, may be necessary and would be a logical and practical solution to both problems.

In other cases a different method of initial clearing may cause less soil loss, as not only is the Board concerned with soil loss after clearing but at the clearing stage itself. Soil loss during root-raking or bulldozing can be considerable.

The Board has no desire to prevent productive development, it has a stated land use policy which put briefly, encourages sustained productive use. The emphasis being on the sustained production.

**Clearing and control of noxious plants on specific erosion-prone soils:**

In most districts there can be found areas with a number of, often inter-related, problems. The one I am thinking of in the Rangitikei-Wanganui district is referred to, politely, by Soil Conservators as the Pohangina rubbish and by local farmers as the gorse belt.

The Pohangina soils of this strip are formed on unconsolidated sands which wash away at the drop of a hat.

It is no accident that this erosive soil and noxious plant problem are together.

The fertility of the soil is low, consequently



so is the carrying capacity and nett income. The soils are drought-prone, therefore pastures open up and permit a weed infestation. Production is reduced and so the cycle goes on.

I sometimes wonder if the eradication of noxious plants in such areas is in fact a viable proposition. I realise there are problems, not the least that you work for a local body which inevitably has a councillor on the Noxious Plants Committee who is a purist and who is out to get the last gorse bush.

I don't consider this is practical, at least in some parts of these problem areas. There is much to be gained by either converting these areas to afforestation or even just controlling the spread on the perimeter and simply allowing natural regeneration to take place.

As most of you will be aware, this is very quick, particularly under gorse, with a subsequent smothering of the problem weeds.

The question will be asked, how can I define problem areas which should be considered in this light?

Here is a very practical application for the Land Resource Worksheets as discussed by Mr Eyles and which give soil and geological details. I don't expect you to become experts on soil characteristics in your particular area, but you will have a good knowledge of your problem areas as far as weeds are concerned, and I'm certain that staff of local Catchment Authorities would be only too happy to discuss the soils and erosion problems of those areas with you.

### **Spraying Operations:**

Damage to trees (poplar, willow, pine) planted for conservation purposes and native species acting in a similar capacity can be caused during the control spraying of noxious plants.

While this is generally sporadic and isolated, and most often on a property other than where the actual spraying is being carried out, it is sufficient to warrant drawing your attention to it, with a plea for its consideration during the planning of a spraying programme. It is appreciated that you personally have very little direct control of on-farm spraying operations.

However, in your extension role, during discussions with farmers and spraying operators, a mention of this aspect would help reinforce publicity being undertaken by Catchment Authorities themselves.

Thistle spraying during winter causes virtually no damage to poplar and willow plantings, however, spraying of scrub weeds during the growing season of conservation trees is very damaging, particularly to some of the willow species.

In conclusion I thank your organisation for the opportunity to speak here, perhaps to stimulate a new idea from which there can be mutual benefit.

□





# PLANNING FOR CHANGE

ROBIN PLUMMER



MR R. PLUMMER

The purpose of the session this afternoon is looking at changes that affect the lives of noxious plants officers. I thought, no way, you know, I don't want to be involved — but anyway, I got interested and started reading about the topic and it seemed to me perhaps it was an area we haven't thought about very much.

It certainly made me re-examine my own way I handle or adapt to change and so I accepted it and we have tried to develop a participation session so that rather than my standing up and giving you my ideas, I would just like very briefly to give you some thoughts and guidelines and then to come back and have a look at the questionnaire and perhaps stimulate you to think about your own way you handle change.

So the purpose of this session is primarily to realise the impact of change in our society and on your own lives and secondly, to look at the ways you handle change or could improve the way you handle change.

Just two things, and I would like to start off for about five minutes, is that there are two certain things in life — we are born and we will die — but there is a third thing — anyone like to have a guess at what it is? — we are born and we die and I believe there is a third thing which has started to take place in recent years — we are all faced with constant, accelerating change.

Just think about that for a moment. We are faced with constant, accelerating change.

What was in the newspaper today, or yesterday? Iran — anything else? — change in our world society — boycott — you just think back over the last week, month, the amount of change that has taken place in the world scene

because of instant communication — it is tremendous.

There was a guy, Alvin Toffler, who wrote a book called "Future Shock," and this was written about nine or ten years ago when he looked at the impact of change in western society and the things that Alvin Toffler said then in fact are coming true right today.

He said that the western society was going to be faced with, if you like, a fire storm of increasing, accelerating change. I read this a few years ago and thought — oh, that's a load of garbage — but we are right in it now, and if you stand back for a moment and think about it, you will realise the impact of what he was saying because when you are involved in a society like ours, a highly industrialised, materialistic society, often we don't realise the amount of change that has taken place in our lives, personally and as a group.

Just think about it for a moment.

You think about your own life and about change that has taken place in recent years, it is quite frightening. If you haven't read this book and are interested in this area, after this session I can recommend it to dip into, and certainly, in parts.

The other point I would like to mention is just to give you an appreciation overall — excuse my mathematics here but if you look back over the last 50,000 years and we divide it into, say, 80 lifetimes, 60 years, so it is your lifetime multiplied by 800, in the last 750 lifetimes we were living in caves — all right, last six we had the printed word, you can see what else I have got on the board there, and it is only in the last 60 years that we have really been faced with the consumer society — you know with all things that we accept for granted; now, that's a generalisation but that gives you a time scale of the change and the impact of change over the last 60-100 years and Alvin Toffler says that in fact probably, if we survive as a world, this century will be called the century of change — you know, it may alter in the future — you had the Bronze age and the Iron age — he suggests, and I think he is right — this will be the century of change.

Have any of you been involved with the micro-chip technology — you know we have read about it in the paper, this new technology looming up — has anybody thought about it, how they will cope with it or adapt to this — has anybody been involved in it at all?

Well, in the Ministry we have in fact just had it thrust upon us and I am finding it hard personally to cope with it. I don't want to have anything to do with it because it is going to mean a whole new



ball game for us.

We resist it and all of us resist these sort of changes.

So much for the world scene or the broad sweep — the thesis I want to put across, and supported by Toffler, is that change is upon us and all of us are affected whether we like it or not, it is inevitable and it is going to accelerate, and not just in technology either, in values and so on.

The thing I would like to come back to though, is right back to you and I, and what affect it is having on us and our society in New Zealand and just a few things I would like to put across.

First of all, if you are like me you often have a vague feeling that (a) you are not keeping up with things or (b) change is taking place, whether it's in your own life or in your job, or family, whatever and you're just not sure what's going on and sometimes you feel you can't cope.

But a number of things have happened.

First of all, in New Zealand we had the Commission for the Future — well they have now produced three booklets — you know if you do nothing else from this session, I would suggest that you have a look at the three booklets by the Commission for the Future — well worth reading, it is quite frightening what they predict will happen in our society over the next 20 years — so somebody is worried about change in our society — the Commission for the Future — it is another Government document, but you know there are some, a lot, of valid points in it.

Another one is the Johnson Report which I am sure has hit home at all of us who are parents; we have an attitude to this, it is far-reaching change in our educational system.

How did you react to it?

Don't answer me right now — but, again, it is change in our society and we all have an attitude, we all react to it and we should be thinking of how we can cope with it — some of us, many people in fact are resistant, antagonistic and others are much more open — you have got the whole strata of society and its attitudes.

I could spend a lot of time looking at change as it has affected farming technology — you know, since I have been an adviser, the amount of change in New Zealand society is quite fantastic, let alone overseas, and all in the last 10-20 years.

The point I would like to follow up is that change in the sense of technology, is really involved with people — it is not so much the technology or change in noxious plant control or whatever, it is the change that you expect through people — you know, you are going to get your change through people and I believe that's the first message I would like to hit home with, that we are all involved in change, each one of us, particularly as noxious plants officers and you know, we have got to realise that change is people, their attitudes, worries, anxieties and doubts, the whole box of tricks.

Just very quickly, looking back at your own job; the amount of change that has taken place since I have been involved with you, people like Bill, over the last three years is quite incredible; legislation is one, chemicals, what are some of the changes that have taken place with you people? — the Act — training — prices, subsidies, or as counsellors, what sort of changes have taken place in the area of concern?

Okay, this is a whole new area of new concepts handling environment which affects you as noxious plants officers; new concepts of control of weeds; so that is another aspect of change. Change in the whole area of organisation in New Zealand for noxious plant control. Change in your own job; some of the newer people coming in, people like Peter here, will come in with a different attitude to the job; they will see their job as perhaps more as an advisory type job as opposed to people like Bill, who have been in the hard school of knocks and have come right through with a legislative background and so you are moving from a straight enforcement type job into an advisory type job whether you like it or not.

So there is a lot of change taking place and the point I would like to make is that your attitude to it, the way you handle it, is critical to your success as a noxious plants officer and the second thing is that your attitude will reflect back in your clients attitude.

You know, you have got to remember that in handling change, each of us is different, and your own client, the client you work with, the farmer you work with, the counsellor you work with, he'll have his anxieties and doubts about the changes that you are proposing perhaps and you have got to be sensitive to that and that we have got to try and get into the other guy's shoes and try and see it from his point of view.

It would seem to me there are a number of aspects we could just touch on.

First of all in listening to the groups, what are the ways you personally react to change? I think if we are all honest with ourselves we all tend to be naturally cautious, you know, we all like the natural order of things and we tend naturally, I think, to resist change, some more than others, but I think, and I have just put on the overhead here — change, now there are some generalisations I would like to make.

Some people thrive on change — you know the research indicates that 3-4% of the population, the adrenalin runs through them pretty smartly and they in fact thrive on change, it is no problem, they adapt to it, they love it and there would be one or two people here like that; you will recognise it in yourself.

I suspect I have got germs of that in myself, also. Others put their head in the sand, I am not pointing at anybody, but some people in fact tend to hope — they put their head in the sand and pre-



tend not to see it and again, I am generalising here, it depends on issues, on the particular specific issues, but you know people like that, you may be a little bit like that yourself, only you know.

Another one is, like all of us sometimes, we have hope if a thorny problem comes up, or change, we hope it will go away or we put it at the bottom of the in tray or whatever, but if we tend to keep on doing that, nothing much happens.

The other one of course, is as somebody mentioned before, that some people naturally resist very strongly, regardless of the changed plan and the point I want to make is that we all have our own way of doing things and as well as that our clients have their own way of looking at things and they react perhaps differently to you, and in fact, invariably they will react to a change and if you take nothing away from this session, I hope you take away that idea but think, next time, that you are involved in getting change with people I am sure you all know that now but perhaps think a little more sensitively or critically about that, what does that really mean in terms of the person you are talking with, whether it is a counsellor, somebody like Brian McSweeney, the regional advisory officer here, myself, or a client, what in fact is he thinking, how does he see this sort of change, what's his background and so on?

We have recognised from the session this afternoon that there are a lot of pressure on us, increasingly, and many of us get very stressful, frustrated, and we are not quite sure where to put our time or our priorities and I think with this last one we have to learn to adapt ourselves, and this I think means having some clear priorities and the second one is helping other people adapt.

Now I believe that is the challenge, in fact, of your job, in the noxious plants officers in the future, helping people adapt to change in the noxious plants area.

The other thing I would just like to summarise on is that change is inevitable and think that you in fact have got to look at your own style and I think there are a number of guidelines that, in preparing for the session today I went around and asked a few people who I was working with — what are some of the ways that they cope with change and some of these may speak to you.

First of all, everybody said it is inevitable — you know, we are faced with constant change and I think this has been supported by this discussion this afternoon.

The second one is that change involves people, not technology, its change in skills, attitudes, knowledge, and the one I haven't put up there which is the most important, is understanding and I think again the lesson to us is what is a person's understanding of the change you have got taking place?

The third point that they all mentioned, although they didn't put those words up is that change, often, isn't based on a logical presentation of facts, giving information — it is very much more on the psychological.

Now I am not suggesting we have got to become psychologists, but we all know you can present change or an idea of doing something just based on hard, cold facts.

I am suggesting there is a hidden part of the iceberg; our feelings about things, our fears about things, our anxieties and so on and this in fact affects much more our ability to accept change, whether it is ourselves or our clients, much more than just on the rational or logical part in our minds.

Do you accept that or not?

These are just commonsense things but it is helpful to be reminded.

The fourth one, being open and creative — now a number of people in their groups mentioned that, but if you are honest with yourselves, sometimes we are not very open and we are not very creative, we don't look at new ways of doing things.

Somebody in this group mentioned they work in a team group with counsellors and noxious plants officers and they try to see a group solution to a problem; that's one very good way of being creative and I would endorse that; so being open and creative, don't have a blocked mind just because you don't agree with it.

Try and see it from the other persons point of view. An obvious one, of course, is develop a positive attitude — you know, shades of Dale Carnegie, but it is very true today, being positive about things.

Finally, examining your own performance and the last one there is, I believe, the important one, having a personal strategy if you like, for how you cope with change and I think that ties in with the final one I have here — is in fact, setting yourself some personal priorities, either in your job, in your life and so on, and I have found that personally very helpful, is trying in fact to be more realistic with yourself, being able to say no.

And the last one I would like to conclude on is that people who look at these things say that the half life of knowledge today is about 5-10 years — what do I mean by that?

The half life of knowledge is 5-10 years, so the point I want to make from that in terms of change is that you in fact have got to take responsibility for your own learning — you know, you can have a programme and so on, but that won't make any effect — you have got to take responsibility and cope with change.

Thank's for your support, I enjoyed your participation.

## PLANNING FOR CHANGE

Three conference groups each considered



various aspects of change as it affects them.

Attitudes and reaction to change and factors actually bringing change about were identified in personal "self-test" exercises.

Group exercises then identified:

- (1) Specific changes noxious plants officers would like to make in their jobs.
- (2) Statement of any help/support needed to help achieve these changes.

## SUMMARY OF GROUP EXERCISES

### 1. REQUIRED CHANGES

**Communication:** Better communication is seen as a priority change at all levels of noxious plants administration: NPC - RCC - DNPA - NPO.

**Job Approach:** DNPA's should recognise and support the advisory/consultative role of NPO's.

**Responsibility:** Some officers felt that they should be given more responsibility to enable them to be more effective in their job.

**Office Work:** NPO's have to spend increasingly more time in the office doing paper work. Some clerical/administrative assistance would enable NPO's to be more effective in carrying out technical requirements of the job.

**More Autonomy:**

**Notices:** As standard procedure, NPO's should be responsible for handling notices.

**Regional Liaison:** Establishment of better communication within regions is a matter of prime importance.

NPO's should have direct representation on all Regional Co-ordinating Committees.

**Job Specification:** All DNPA's should have:

- (1) A job description for each NPO.
- (2) A job specification drawn up for each NPO position.

**Other Duties:** NPO's should not be expected to carry out other duties to the detriment of Noxious Plants work.

### More Interchange:

**Membership:** Institute membership should be sent to a wider range of people.

**Training:** More training is required in specific areas.

**Planning:** A need for better planning at all levels of noxious plants administration.

**Job Conditions:** Some standardisation of conditions of employment and common salary scales are required.

### 2. HELP REQUIRED TO MAKE CHANGES

**Training:** Specific areas of training should be covered, such as communication, planning, human/public relations, weed identification, etc.

**DNPA Awareness:** Employing authorities need to be fully aware and sympathetic to an NPO's job responsibilities and difficulties.

**Authority:** More delegation of authority to NPO would help in carrying out the job.

**Job Conditions:** Some standardisation of conditions of employment and fair placement or commence a salary scale within local government is a high priority need for NPO's.

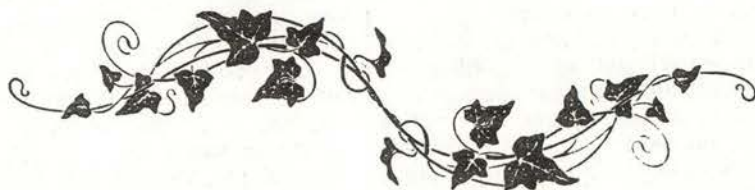
**Subsidy:** More DNPA authority/autonomy in subsidy administration is needed to ensure equitable subsidy distribution.

**Job Liaison:** Increased farmer/DNPA co-operation would facilitate the NPO's job.

**Staffing:** Increased staffing levels in many areas is necessary before NPO's can carry out integrated work programmes effectively.

**Communication:** Better communication, policy dissemination and accurate planning is required at all levels of Noxious Plants Administration.

□





# CONTRACTOR'S ADDRESS

MR LEN SMITH

I deem this to be an extreme honour to be able to come here today to address you people and in actual fact, I feel rather humble.

I am sorry I couldn't come down to spend more time with you, but by the time I had gone and tried to hire some reasonable clothes and put on a reasonable presentation, the time had just passed on and I just made it here.

I take particular interest in the fact that this is your 31st conference and to find out a little bit about your original conferences and history, and I spent some very pleasant moments recently with your original chairman, Sam Neale, who has asked me to convey to you his best wishes; as most of you are probably aware, Sam is one of your life members, an honour that he holds very dear.

I feel that in the short time I have got allocated to me that I would like to give you a very brief history for those who don't know, about the Contractor's Federation, and initially I will just give you a brief run-down on my credentials here.

I have been contracting for coming up to 23 years and in 1959 I, along with some others, got the original contractors together, somewhat like Sam Neale did with six others, and I believe it was in Cambridge in 1948.

We found that our situation — our aspirations and aims — were very, very similar to yours in so much that our feeling was that if we didn't have some body of reasonable size and recognition, laws and bylaws and what have you, could be brought in that would be detrimental to our jobs, or our industry as it was in those days, and we went on as a very small group and eventually joined the Contractors' Federation for what could be called a rather large secretarial situation because that's what they really are — we are a little body within that federation, coming up I think it is 13 or 14 years ago.

The Contractors' Federation accepting us was the biggest boost we have ever had because since we have been there we've done all sorts of things and I believe we could take the honour of being trend-setters in certain things.

Could I elaborate on that and say we were very, very instrumental in getting the original TCI course going for qualifications for applicators.

We initiated an insurance scheme which is vogue at the moment for all registered applicators to the tune of \$250,000 and there is only one criteria as far as the insurance company is concerned, all applicators that partake in that scheme must be registered and of course we have our little bit too, we insist they must be

members of the Federation so it is rather a unique insurance and one that has been lacking in this country for many, many years.

Back to my own credentials, I have actually been a member almost since its inception of the Plant Damages Committee of the Agricultural Chemicals Board and in a fortnight's time, I think, I attend my 20th meeting, their annual meetings.

I also negotiate — sometimes it is rather humorous, at times it is sad — but I am an assessor in negotiating the wages with the union that covers our industry and I won't bore you with the details, but that would probably be one of my most interesting assignments — you know, a lot of people have seen on the television the union negotiators sitting around a table, but to be there and experience it, is quite an experience.

In June of this year we have our conference in Masterton and at this particular stage in the proceedings that I am sure you will agree with me that it was a very sad loss to see Alf King pass on, and it is only unfortunate that we couldn't have got to Masterton when Alf was still able to enjoy the conference with us. I know Alf did a lot for this particular Institute.

That is, briefly, a resume of the Contractors' Federation. We have our problems the same as you do.

There were a couple of questions actually, that were asked here before, that I would have loved to have answered at the time — I am trying to remember exactly what they were.

One was the spraying of 5cm gorse. I think if I had it I would be planting some sheep on it or something like that, but I am very interested to hear that MCPB will control it, but then again might I just give a little plug for the contractor with reasonable responsibility. I never apply materials if it is not on the label what they will do — not publicly, anyway.

One thing that has come out in the very little I have heard both downstairs and up here is that it appears to me that like our industry, yours is the same and dictated by personalities, and I hark back to a couple of comments that were made about the Ministry of Works.

Somebody mentioned that they got in touch with the Ministry of Works about a particular problem and the problem was resolved, something was done.

I put it to you that in all sorts of walks of life the end results rely on the personality or the character who is doing the dictating of what can be done or what can't be done, or overseeing it.

This particular situation, the engineer or the



person in charge must have understood the problem and I can't help but think there are a lot of people in all walks of life, and particularly in ours, because it is right in front of me all the time, who can really not understand a problem and one I must lay the blame on is in actual fact our Government, through our Minister, who are making decisions that I don't think are — and I am only giving you my personal opinion here — quite right and I put it to you that there has been a lot of talk about these noxious weeds that are under subsidy — what's going to happen when there is no subsidy?

What co-operation are you going to get from the farmers to eradicate some of these weeds and, further to that with the scheme as it is now, it is supposed to be an ongoing thing for three years, are those schemes being followed up, and I can't help but think that in a lot of cases they aren't and money is being wasted, and another small thing I would like to mention too, as Sam Neale said to me that when he started in 1941 as probably the original Noxious Weed inspector in New Zealand — and I say probably, because I really wouldn't know, he had a chairman on our local county — the Hawke's Bay County, who was most co-operative and he virtually gave Sam a free run and Sam could administer the Act as it was then, which I think came down in 1928, that was the Act he was working under, virtually to his own free will, but then through the course of the democratic system in this country we had a new chairman who came in and Sam told me in his own words that from the day he arrived, things had changed because he felt that Sam should concentrate on some of these Maori block areas which admittedly had got a little bit behind and get into some of the small farmers and leave some of the bigger ones alone because, as Sam said, the chairman said to him — "leave some of the bigger ones alone because you must realise that some of them are on the Council."

To me, that's not fair. I feel that you chaps should be able to do your job regardless of who it is, where it is, what the situation is — without any restrictions from your Council and I realise there are Councillors here but I am sure they will take what I say in the good faith I am trying to give it in, and realise that there is a situation here where if we get behind the spirit of the Act that is coming into force shortly and the Acts that are in force now, I am sure that we can do a good job towards eradicating the weeds in this country and thus making a better life for later on.

And at this stage I might ask, I would like to carry on with questions — are there any questions you would like to ask about the contracting industry or contractors in your area and if I can I will answer them — but I am only speaking for the Federation ones, if you can understand that.

**NEW SPEAKER:** Do all the aerial applicators belong to your Federation?

**MR LEN SMITH:** Yes, well you have actually just scratched a sore. No, they don't — actually they are completely divorced.

Being on the Plant Damages committee I am well aware, and you probably all are too, that the chemical applicators in the ground ones have a voluntary registration scheme which we have been trying to make compulsory under the auspices of a trade certification.

The aerial operators are registered initially through the Agricultural Chemicals Board, through the Department of Agriculture, but once they get in behind the aircraft, and from that day on, they come under the auspices of the Transport Department, Civil Aviation Division.

There has never been a case known of a certificate being taken back and to the best of our knowledge the pilots who do make errors, and there are some, only get a letter in the mail and this is a hot point; in actual fact, there was a very good programme on Channel Two some of you may have seen, others of course would have been here doing the business which I noticed was on your programme, and the Registrar of the Agricultural Chemicals Board made specific reference to the fact that at long last the Board is concerned about the qualification of pilots for the application of agricultural chemicals and I know from my lists that I get of plant damage through the country, and I am expecting them any time for the meeting in a fortnight, that the biggest bulk of them are by aerial applicators.

**NEW SPEAKER:** Thanks very much, that's very good, but that wasn't what I was going to ask the second question. Does your Federation condone ring tendering by aerial applicators?

**MR LEN SMITH:** We don't condone ring tendering all around, no matter who it is from; we don't agree to be quite honest with local bodies selling hormones to their ratepayers, but we've made noises about that. No, we don't agree with ring tendering at all — we know it is done.

**MR HOULAHAN:** Mr Chairman, I would like to ask Mr Smith if he has had occasions through members of the Contractors' Federation where spraying jobs have been done where prices haven't been justified. I had an occasion last year where a property refused to pay outstanding spraying charges done by a member of the Contractors' Federation and it was an embarrassment to me to have to be involved and I eventually advised the farmer and the spraying contractor to perhaps bring the Contractors' Federation in to assess the job as to whether the costs were justified or not. Thank you.



**MR LEN SMITH:** Well, if it was an embarrassment to you, how do you think I feel, up here? This is the first I have heard of it.

No, we have a Code of Ethics.

In the case of what could be called in your instance, an overcharge, I got back about 8-9 years ago in the Taradale area there was a local contractor who did a job and there was a point at issue that they thought he had overcharged and they called myself in and I reluctantly went along

to this particular job and assessed what I thought it would cost.

It was, unfortunately for my confederate, lower than what he had charged, but he accepted it quite willingly and it was all settled amicably.

We have ways of doing this, but you know if you have got any complaints at all about the Contractors' Federation write to them, because if we have any complaints about Noxious Plants Officers, we will write to you. □

## OPEN FORUM

A SESSION OPEN TO ALL OFFICERS AND GUESTS AT THE CONFERENCE.

**MR HODSON:** Yes, Mr Chairman — the question I would like to put forward is the subsidy claim form. Perhaps Mr Shallard or Mr McNab could answer this. On the subsidy claim forms, the chairman is supposed to sign the form prior to going for payment of subsidy. I am wondering why the chairman of noxious plants should have to sign this instead of the NPO's because in most cases the chairman of noxious plants councils doesn't have a clue as to what's going on in the place anyway.

**MR SHALLARD:** Perhaps that's a very good reason why he should sign the form, that he might learn something. It's an instructional exercise as well as anything else.

**MR MARSH:** I think to carry on from that — a lot of authorities have passed a resolution that their officers sign, which is quite legal.

**MR SHALLARD:** Yes, I think also, to be more fair, a great deal of district authorities have their noxious plants officers signing on behalf of the chairman if the district authority is willing for him to do so. I might also add that I know a number of district authorities where the chairman does know quite a lot about it and takes quite an active interest but in your case, if you are referring to some that don't, I think it is a good reason why they should.

**MR EVES:** On the 25th of March this year my local authority received a circular letter from the Noxious Plants Council advising that there was a great variation in urban noxious plants control and that they intended to formulate a policy and guidelines for an urban situation and asked for any information which the local urban D.N.P.A. could give them on this. Now I have made a number of inquiries from the officers of the urban

authorities in the room and for some reason, I am not going to say why, of course, I don't know, but the circular letter hasn't reached them. I don't know what Mr Shallard would comment but if it could urge, if I may, those urban officers to make inquiries about this because this is the opportunity that you have long asked for to make some submissions relating to this particular aspect of noxious plants control and if you don't reply and have something foisted upon you which you don't want, this will be the result of your lack of action.

**MR SHALLARD:** Just in reply, that circular did go to all urban authorities; there have been a wide variety of responses received by the Secretary, some expressing total ignorance and some presenting some quite useful ideas. I have a feeling what you are referring to is again the problem that in some cases the town clerk, the county clerk, whoever, does not pass on such pieces of correspondence to the officer concerned and we have no way of knowing when the answer comes back whether it is from the county clerk, the town clerk, or whether it is including the input from the officer. No we know that the circulars went to all municipalities on the Municipal Association's mailing list; the answers of course have to come back from town clerks as you would have expected them to but how far that filtered down in the actual authority you don't know.

**MR FEIREBEND:** I think part of the problem is that it is passed down. I know in Tauranga County we do get correspondence through from the top, it comes to the county manager, to the senior inspector to the senior noxious plants officer, it ends up on Keith's desk and I think this is it, it goes down through a series of initials and nobody really knows what the hell is going on at



all. They don't realise we have a district programme, I don't think they know there is a subsidy scheme going; in fact, I asked for a notice the other day and it was headed Tauranga County Council and was signed by the Chief Inspector — this was supposed to be an official notice, so this is the sort of thing.

I think from the Noxious Plants Council, down through regions to the district authorities, there should be I think a bit more literature from one to the other so that the local authority, the district authority, is getting the message about what is going on.

You know, we still have county councils running things and they still think of themselves as the county council running things and not a district noxious plants authority and they really don't know what is going on at all and I believe region also is to blame for this because they haven't been tough enough in their directives to the district authorities.

**MR McNAB:** Yes, it is a problem and we acknowledge that this problem exists. The slender line that we tread of course is that we have county representatives within the noxious plants council and so I really look to them and their executive to unravel some of the points which you are talking about. Part of my job since I have been appointed is to visit these other groups involved in the noxious plants council, separately and individually, and talk to them about noxious plant work, to talk to them about the work of the noxious plants council particularly, and to be able to resolve these sort of problems.

Now, one organisation I haven't yet seen and whom I hope to see in the very near future of course, is the Counties Association, and this will be one of the points I will raise with them. I am primarily concerned in seeing that the work of the noxious plants council proceeds smoothly, effectively and these sort of bottlenecks are the sort of things I want to know about.

**MR HOULAHAN:** *I wonder if I could direct a question perhaps to the Bay of Plenty/Waikato noxious plants officers in regard to Johnson Grass control. I am just wondering what reaction they have had from land owners of infested areas where perhaps it implies that a crop could be impounded from harvesting or the reaction they have had from contractors intending to harvest an infested area.*

**MR FINLAYSON:** *Yes, Mr Chairman, in the last week I spent doing Johnson Grass in an area about half the size of this room, it has taken in the vicinity of 40-odd hours between me and my assistant, we have met with contractors, the farmer concerned who owns the property has never shown it at all because he didn't get compensation last time; the discussion on Friday*

was that from the contractors and the truck drivers was that they would be reluctant in the future to notify any new infestations of Johnson Grass. After considerable consultation with them I have got through that we shall get together in the very near future to discuss these points to see if they feel they have got a case they should not take it out on the land or the landowners, or anyone like that, they should get together and try with the National Plants Authority to work out a solution; whether this is forthcoming or not is to be seen, but I hope to hold a meeting in the very near future.

**MR McNAB:** I know John Hercus recently, in a trip to the Waikato, discussed with me only briefly some of his thoughts on what is being done up there and the effort that had been made and he had inspected a number of properties in the field where this work was being proceeded with. He was of the view that, all things considered, it was a fire brigade exercise and there were a certain number of lessons to be learned by most people concerned but generally the whole thing had been approached in a very constructive way and he was quite hopeful that we had lessons to learn from the exercise but certainly it wasn't a situation of despair by any means.

**MR BENNIE:** I would like to ask Mr Foley, concerning new contractors starting up business — self-employed, and they have started their course, is there any temporary registration they can have or how can they be covered for spraying on subsidised weeds.

**MR FOLEY:** Yes, I am glad you have raised that. We have always appreciated this would be a problem where people come in and buy an existing business and that the person purchasing it isn't a registered chemical applicator, or even more importantly, has had no association with chemicals before. What we tell these people is that they must, somehow, get alongside a registered chemical applicator in their area and have them supervise, as we mentioned before, their work. This is the only way that they can get the experience because one of the requirements for registration is that they have had adequate practical experience, so somewhere along the line they have got to get it but obviously with the scheme that's running at the moment with the subsidy from the Government on the control of noxious weeds they can't get it unless they can somehow work under a registered chemical applicator so we tell these people they must get alongside a registered chemical applicator to oversee their work.

Preferably, though, these people before they buy a business, should spend some time as a contractor employee, we do stress this too, quite



often as it turns out, a chap sees a business for sale, he thinks, well, I would like to get into this spraying business, buys it, and then finds he has got a problem that he can't get work in particular areas.

**MR THOMPSON:** What happens if all subsidies get wiped, what happens to the applicators then?

**MR FOLEY:** Well, surely, there's no subsidy. The chemical applicator section have often voiced this concern that if the subsidy scheme was dropped then the incentive to become registered would be lost but the Agricultural Chemicals Board doesn't quite view it that way; they think that irrespective of whether there is a subsidy or not, people who are doing chemical application as a full-time business should become registered, they should go through this scheme, they should, in other words, take the T.C.I. course, take the Board's examination and show that they have had adequate practical experience so that they can put themselves up as a qualified person in chemical application.

So, notwithstanding whether there is subsidy or not, this shouldn't really in theory affect the scheme, but I would think that if the subsidy was dropped, then the chemical applicators perhaps would use this as a means to perhaps ask for compulsory registration but we will meet that when we come to it.

**MR McNAB:** The comment that I would like to make of course is to dispel from anybody's thoughts that in the short-term at least the Government won't be prepared to give us some money towards the cost of clearing, particularly brush weeds and part of our work, of course, has been to meet Government and discuss with Government those parts of our administration that involve Government in funding, and we have no reason whatever to believe that the Government does not see great merit in programmed approach to the work and they have indicated in this coming year very probably, and I say probably because we are subject to budget decisions that very probably we will get about the same level of money that we have had in the past on the basis of the programmes which are submitted which you people are involved in and that's the sort of basis which Government are prepared to accept as a valid reason why we should have some money towards the clearance of noxious plants and we think it is pretty good that we look after the brush weeds — in fact, we think they are priority one, and we will be working very, very hard, and at the highest levels of Government to see that this is continued.

**MR FITCHETT:** Mr Chairman, this is more of a question to NPO's. Sir, we all know that the Crown is now bound by the new Act, but I

wondered what sort of co-operation the officers here get from people like the Ministry of Works, I am talking mostly about road/river reserves; we all know it is the responsibility of the farmer up to the middle of the road but in the cases of road/river reserves, I wondered if we could get any indication of what sort of co-operation officers get from say, the Ministry of Works.

**MR CHILES:** Well, we have State Highway 25, we also have two other state highways passing through our county and I get all the co-operation in the world from the Ministry of Works, I can tell you that straight.

**MR HIGGINS:** The comment came at a regional meeting recently in Dunedin where the matters being discussed over Crown land and Government departments organising a programme and so forth, the comment was made that regional committee has got a representative from Lands and Survey in our particular case who represents all Government departments and in this particular instance in the Otago Regional Noxious Plants Committee, he is very active and would like to hear from any noxious plants officer who has got a problem with a particular Government department and he would then take action, so I tend to think that it is possibly best to go through the regional committee or through that representative to get some action.

**MR HOSKIN:** What interests me is the responsibility of Catchment Boards; we have got this weed, which I brought up earlier — goatsrue — which is basically a river problem and we're hopefully going to do something in the Catchment Board area but we seem to be in a very grey area and I would like some authority to tell me whether Catchment Boards are now going to be responsible. You are probably aware locally that Manawatu Catchment Board is crying poverty all the time and whether there is going to be any progress in this direction I would like to know.

**MR McNAB:** We have on the Plants Council a member from the Lands and Survey Department and we look on him as co-ordinating all Government departments on this question of resolving problems be they local or of a wider aspect. Now, previously, it was Mr George MacMillan, very recently George has given this job now to Land Administrator Mr Grant, but it really makes not much difference. The principle is this, simply that if any particular area, particular problems are occurring with Crown land and the people responsible for administering that Crown land, in whatever department within Government, the whole wide field of it, if that problem is occurring then Mr MacMillan and now Mr Grant, will be responsible through us to see that those people



play the game and it is as simple as that and where it is a reasonable proposition, and I stress reasonable, where it is a reasonable proposition we will see that the indication from those departments and the heads of those departments is quite clearly given to them that we expect a better effort if that is needed, but let me make it quite clear that at the present time they have been wholly co-operative and we haven't had this necessity.

**MR PEARSON:** I would like to ask Mr McNab how the Noxious Plants Council would view reverting Crown land — Crown land which has got a certain degree of infestation of gorse on it but which is going to be very costly to eradicate, but unless it is eradicated is going to eventually cover a very large area of hillside.

**MR McNAB:** Well, we have had clear indications, of course, that the Crown must have due notice where it is the wish of the Local Authority or the District Noxious Plants Authority or the Region, or whatever, that they have in fact expressed some concern about it because money isn't so quickly available, that often that work can be done at very short notice, sometimes it can, sometimes it may be part of a wider plan. I want to stress again that your approach to this problem of Crown land must be built into the wider scheme within the region or within the District Noxious Plants Authority. We would take it as being pretty dim if in fact we thought local authorities were victimising the Crown, if you like to put it that way, and that sounds pretty good because they have never been victimised before, but you know it has got to be reasonable and if it is reasonable and the people you are concerned with are not acting reasonably then we have every intention of following it and proceeding with it until the point where reason does prevail, so it's just as simple as that, perhaps too simple.

**MR DANIEL:** With all applications for Class B weeds that went forward to Council, it was required to have a programme of control. Now Council have nominated and gazetted various Class B weeds that were not applied for for various areas, does Council intend to come back with programmes of control for those weeds?

**MR SHALLARD:** I don't know the answer to that one. The decision made by Council to declare plants on a wider basis than which they were asked for was done because they saw the need to do so, the technical committee advised that in their opinion it was necessary to have Class B declarations for these plants on a New Zealand-wide basis when perhaps only some of the local authorities had asked for it. The question of the Council promulgating some, a

programme for these particular ones has not been discussed, it is perhaps something that should be.

The other thing that I mentioned also to one of the groups this afternoon was that there has been some concern expressed in various areas at these particular declarations that have been imposed on District Authorities, for want of a better word, when they didn't ask for them and they want to have a programme that has a minimum number of weeds on it but in fact the declarations in their area run to quite a number more than they want to have on their programme. This was raised with the Council by Arthur Healey, who wrote to the Council at its last meeting and you will now be getting at some stage shortly a circular requesting advice from District Authorities as to what plants they have, if any, in this category, i.e., have they got any that were imposed upon them by the Council that they do not wish to have included in their programme and reasons why they would like these withdrawn from declarations and the Council will then look at that.

**MR HIGGINS:** I would ask Mr McNab — I understand, just learning from our little sessions before that you have just recently completed a tour of the North Island Regional Committees. Would you like to comment on how you saw them working and do you think at some stage in the future they will be made redundant or will they be given further powers?

**MR McNAB:** Mr Chairman, we haven't actually had any regional meetings for some short time, meeting with regional committees, but it is our intention to go and meet the regions as we have done in the past and we think this is a well worthwhile thing to do. May be this meeting people will be more extensive in the future and it could well be that we may have to meet chairmen of District Noxious Plants Authorities separately because often at the regions of course we don't see too many of the sort of people represented by your Institute or represented by Counties — there are three or four there, Federated farmers have their participants too, as well as the Crown, so I think in the longer term it is going to be part of our effort to in fact meet regions.

Now, the assessment of how well regions are doing of course, is something which is policy within the Noxious Plants Council and it is a matter which I think possibly, if there were shortcomings and, you know, on reflection, I think there are some shortcomings and this then is a matter which I believe can best probably be resolved if I, in the responsible job I have, see those particular people concerned, talking about that particular thing and getting it resolved without making too much of a big fuss about it. You know, maybe that's the best way, because



some people are enthusiastic about weeds and some aren't — you know, it is a bit like that song about some girls do and some girls don't.

**MR MACALISTER:** I would just like to ask Mr Shallard as a follow-on from your last comment regarding the communication coming out that Local Authorities or District Noxious Plants Authorities can have a choice to delete some weeds of their Class B Schedule. Why then does the Noxious Plants Council not institute the same policy for those authorities that wish to include weeds on the Schedule which have been problem weeds in their particular area for a long, long time; they may be very localised, I refer particularly to the Manawatu County area where Lupin would be the largest weed infestation in that area — there have been four approaches to the Noxious Plants Council and on each occasion we have been turned down. Now, as far as the Manawatu County is concerned, this would be probably one of their priority weeds in the terms of ground cover.

**MR SHALLARD:** In answer to that, I think there are two different things there. It has been, there have been, declarations made already of noxious plants that are particular problems in particular county areas or district authority areas; there are about half a dozen now that are declared just within one district authority area but those have been looked at by the Council and its technical committee on the basis of the criteria for Class B classification and Lupin, in their opinion, does not meet that criteria — it has nothing to do with the fact that it is localised in one county — it is simply the fact that their opinion is that it does not meet the criteria for Class B.

**MR McNAB:** Just to add further to that. There was a suggestion made at one of the sessions, I think it was the last one we attended, or maybe it was in here, that if in fact we had some submissions again on Class B weeds that had previously been turned down then there was a fair show they would be reinstated as Class B or stated as Class B. Now could I just make it quite clear that we would hear additional submissions on Class B, that's for sure, but it must contain new information, that is, information other than what we have had up until now, and it is no use rehashing the old cabbage again, you have got to come up with some new reasons why, and then we are very happy to look at it.

**MR SHALLARD:** I don't really think that's the purpose of the Noxious Plants Act, to look after nuisances at local level; if they are nuisances, the Local Authority should take the responsibility to do something about them, or the individual farmer, if you extend the Noxious Plants Act any more you are going to get back to a worse

situation than you had before, with a hundred weeds.

**MR MARSH:** Mr Shallard, I don't think that even answers the question. This has come up in many, many cases in the country. I can give you a good example in some areas of certain types of weeds, or plants, you know, that are of concern to many District Plants Authorities, they have been put off the list by the technical committee.

I believe the technical committee should be at regional level so that they understand the regional local problems. This has been the concept of the Act. I don't think, administratively, that the Act is really carrying out the functions that it was intended to do, to speed up operation, to have a more workable administration; to be quite honest, this is the general opinion of most of our members here, I feel, they are concerned that the administration is not streamlined at all, in fact it is getting bogged down with bureaucracy.

[Acclamation].

**MR McNAB:** That would be a hard act to follow, Fred. That's fair enough, what you have said. I guess in this whole question of looking at weeds we are looking at a new concept but we are looking also at trying to get a lot of other people, other than you here assembled, to be more conscientious and to be more conscious of the weeds that they have got. You know, I think one of the communication things that noxious plants officers will have when their training is completed is a much, much wider understanding of some of the dangerous weeds which are almost on the threshold of being a real nuisance and to get around amongst the farming community, if you want to isolate one particular sector, then there are probably a lot of farmers who really don't know as much about the weeds on their farms as they should do — really don't recognise the importance of the ones there, but come into the urban sector where there are a great many people who accumulate some ghastly weeds in their garden, but they are a darn sight worse if they take them out to their friends and relations in the country and maybe the fellows who have got fish'ponds or those sort of things are going to let some aquatics go which are a real nightmare — so you know we are talking about a much more extensive operation than probably ever was envisaged before and I don't think we can get that sort of message across in a short while but we can do it better than anything if we have the people concerned well informed and well trained and interested in what they are doing, so in the short term, I can't see a Class C, but I can certainly see people being more weed-conscious, perhaps as a result of what you people say, and we will have to say to the public in a wider sense.

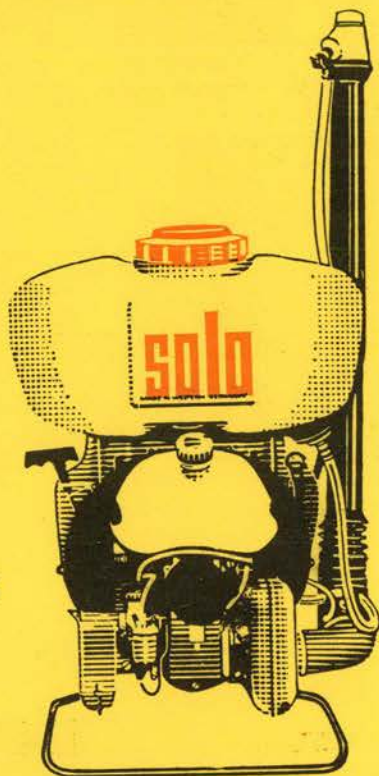
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