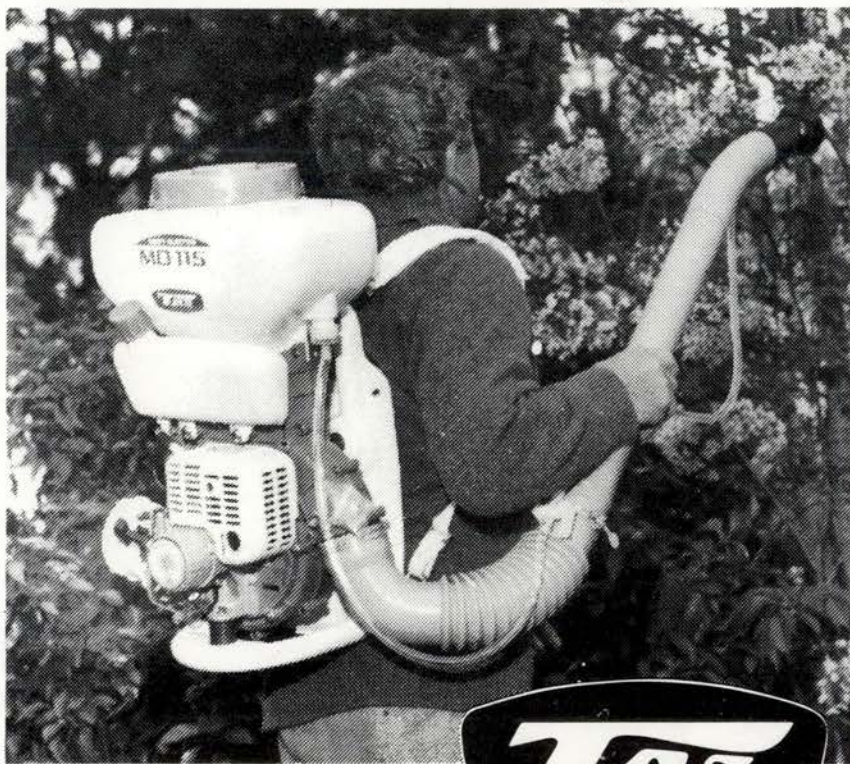


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The Official Journal of I.N.P.O.



Vol.4 No.2

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April 1983

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SPECIAL NOTE

The views expressed in this Journal are those of the individual and not necessarily those of the Institute of Noxious Plants Officers unless otherwise stated.

Lime helps to halt gorse seedling establishment

The regeneration of gorse from buried seed is a continuing problem following any gorse clearing operation. But research scientists are finding that lime could help to solve it. Current work being done by the Research Division of MAF, at Palmerston North, is showing that lime applied to existing or new pasture will reduce the number of new gorse seedlings that can establish under grazing. Drs Jennifer Hartley and Ian Popay report here on their findings to date.



WORK ON THE USE OF LIME to reduce gorse seedling establishment, is still in progress. And because of the relatively long term nature of the problem, the present results must be taken as preliminary. They are, however, of such interest and potential practical value that we feel farmers should be given the opportunity to assess this preliminary information for themselves.

The work has been done on the foothills of the Tararuas near Palmerston North. One area had been root raked in 1972 and was in poor ryegrass/browntop pasture with little clover. Scattered gorse had re-established across the area but this was cut out in the course of other experimental work. The other area was newly cleared from gorse by spraying and burning. The soil fertility of both areas was very low with a quick test analysis of pH 5.5. Ca 3. K 6. P 3. Mg 24. (each 100 square metres) on existing pasture. One set of plots received neither lime nor superphosphate. The other four treatments were 750 kgs of superphosphate per ha. with or without 2500 kgs of lime per ha and 1500 kgs superphosphate per ha. with or without 5000 kg lime per ha. Lime was applied in spring 1979. Half the superphosphate was applied in spring 1979 and half in autumn 1980.

In both the minor trials, plots were small (1 square metre). In one trial, fertilisers were applied in spring 1979 to a ryegrass/white clover sward established the previous autumn. In the other trial, fertilisers were applied to newly sown plots of ryegrass. Yorkshire fog or browntop, each with or without white clover. The same fertiliser combinations were used for both trials. These were:

Three replicated trials were carried out. The main trial involved large plots either 0 or 750 kgs superphosphate per ha. with 0 to 50 kg nitrogen per ha.

The fertiliser treatments were generous because of the low soil fertility and the need to see whether any effects could be detected. Gorse seedlings emerging on the trial plots were counted at regular intervals.

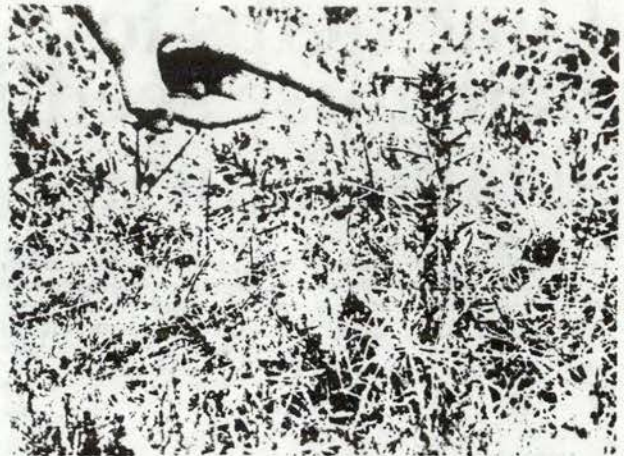
Table 1: The number of gorse seedlings per 100 square metres established in pasture following fertiliser treatment in October 1979 (main trial). The three dates given below are the dates on which seedlings were counted.

	25 May 1981	22 Oct 1981	22 March 1981	% of clover cover in Oct 1981
Superphosphate, no lime	35	16	44	7
Superphosphate and lime	26	6	6	19
No lime, no phosphate	21	10	26	2
No lime, low phosphate	31	13	34	4
No lime, high phosphate	39	19	53	9

Table 2: The accumulative number of gorse seedlings germinating per square metre between October 1979 and September 1981 on two small plot trials.

	Fertiliser-only trial	Species/fertiliser trial
With different fertiliser treatments	No lime	33.7
	Lime	13.0
	No phosphate	18.7
	Phosphate	28.0
	No nitrogen	16.5
With different species	Nitrogen	30.1
	Ryegrass	13.7
	Yorkshire fog	8.1
	Browntop	9.3

In all three trials, lime significantly reduced gorse seedling establishment. In the main trail (Table 1), lime was only applied when superphosphate was also applied so that the lime response shown was in the presence of superphosphate. There was no significant difference between rates of lime. Superphosphate, in the absence of lime, tended to increase the numbers of gorse seedlings emerging. Clover responded strongly to the application of lime AND superphosphate. Although there was a response to the application of superphosphate alone, this was less marked.



Apparently, a gorse seedling has a better chance of survival if the pasture cover is ryegrass. This is thought to be due to ryegrass's stiffer structure protecting the seedlings from trampling.

In the small plot trials, lime also depressed gorse seedling numbers (Table 2), but the responses to superphosphate and nitrogen were inconsistent. On plots where clover was scarce, phosphate increased the gorse numbers. But where clover was abundant, phosphate depressed gorse. Likewise, where grass establishment was poor, nitrogen increased the gorse numbers. But where grass cover was good, nitrogen depressed gorse.

It seems likely that the lime and fertiliser increased the competitiveness of the sward and this was at least partly responsible for the decrease in gorse seedlings. It's also possible that increased palatability of the pasture, due to the swing to clover, means that gorse seedlings are more likely to be eaten. There may also be some effect of lime on the vigour of the gorse seedlings themselves, and this aspect is under investigation.

The greater numbers of gorse seedlings surviving in ryegrass than in Yorkshire fog and browntop, is also consistent with earlier work. A newly-sown ryegrass sward tends to be more open than Yorkshire fog or browntop swards and may allow greater gorse germination. Alternatively, the stiffer structure of ryegrass from trampling which has been shown to be very damaging to them.

In summary, lime can decrease gorse seedling establishment and therefore seems to have a useful part to play in the development of gorse-infested land. But the development of strong pastures and the use of good grazing management, are still the major weapons in combatting gorse regeneration. For this reason, lime can never be a substitute for superphosphate in a development programme but it would be helpful as an addition - especially where soil pH is low.

The testing of lime and superphosphate for their effects on gorse establishment now has been extended in trials in the Wairarapa, Wanganui and on other sites near Palmerston North. ■

(JOURNAL OF AGRICULTURE - OCT 82)



GRECIAN THISTLE

Spreading in Nth Canterbury

GRECIAN THISTLE is an increasing problem for farmers in Hurunui County, North Canterbury.

However, a study commissioned under the Noxious Plants Council's special projects scheme should lead to the thistle's control. The scheme provides funding for the eradication of regionally important noxious plants.

Radahl Consultants, a private research firm, carried out the study for the noxious plants Advisory Committee.

Grecian thistle is an isolated but important problem in the Hurunui County. It is gradually spreading over the tussock and is beginning to encroach on good grazing land.

A reliable killing method was required because the rugged, isolated country meant it was too expensive to make more than one sweep of the area.

The normal method of eradication for single plant and low density infestation such as this would be hand grubbing. The loose stony soil and sloping ground make this impossible.

Attempts at spraying in the past have not been successful. Not enough was known about the plant's life cycle to determine the best time for spraying.

The new study took place during 1982 and looked at the plant's development over two summers.

Spot spraying trials were carried out throughout the year with a variety of chemicals.

The conclusions were that spot treatment was effective both in killing the thistle and in eliminating seed production, provided treatment is carried out during September, October or November.

This is before the thistles change from their vegetative to their reproductive state and begin to flower. If spraying is left any later then viable seeds will develop and eradication will be unsuccessful.

Appropriate chemicals and application rates are given in the consultants' report.

The Hurunui District Noxious Plants Authority is now awaiting guidance from the Canterbury Region Noxious Plants Co-ordinating Committee before deciding on the course of action for the coming season.



Grecian thistle (*Chamaepeuce afra*)

While Marlborough is believed to be clear of this damaging plant, others (such as nassella tussock) have been known to find their way north.

And both Grecian thistle and nassella tussock have been around for many years in North Canterbury. One man who remembers the thistle back in the late 1930s is Mr Eric Carr, now living in New Renwick Road.

Recalling school and mustering days, he says "there were just odd patches growing on loose stoney ground.

"We used to grub by hand, but as stated in The Express (Feb 23) not very successfully as it was hard to get to the bottom of the tap root some 12 inches long.

"I contacted the weed inspector on more than one occasion; I also took out local councillors to see this problem but was told that though it was a noxious weed they were not too worried about it as it only grew on running shingle and the seed was so big it was not wind blown."

Mr Carr said the councillors then were more concerned with the nodding thistle problem.

There appeared to be little or no co-operation from some neighbours, including Lincoln College's Hunua hill farm.

"Before selling my farm three years ago, I tried various ways of eradicating the thistle; hand spraying with different chemicals, spraying with fixed wing and helicopter aircraft, and hand application with a weed-killing superphosphate, but none was very successful," Mr Carr said.

He also observed some spread of the Grecian thistle and its seeds - "about the size of a match head and with up to 98 flowerheads per plant." This developed in a low saddle in the southwest corner of his property.

"When the southwest wind blew through I could see a pattern of seedlings as a result of windblown seeds," he said.

Opossums, of which there were plenty, also ate the large seed and spread it, specially around the lower bushes which grew on shingly ground.

He had a rule with the family, no holiday in the new year until the last known thistle was grubbed or cut down.

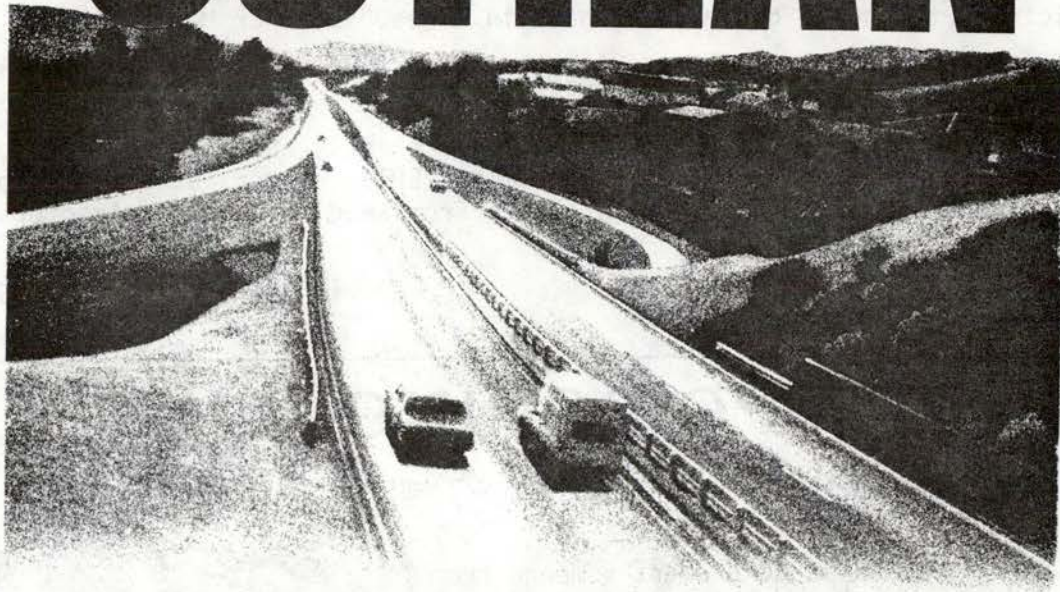
"Up to this time I feel I was only holding the spread but was not really getting on top of the problem," Mr Carr said.

"I agree, early spraying in September-October is possibly the best time but the hardest part is to find the seedlings among the other growth. It is the odd plant missed at this early stage which soon starts off another patch."■

(THE MARLBOROUGH EXPRESS 23-2-83 & 17-3-83)

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the Council and not the farmers.

It was the responsibility of the Council to eradicate the weeds, he said. The Council should act in an advisory capacity and encourage landowners on weed eradication.

"Frankly, I am disappointed with Mr Miller's attitude," said Cr Mackenzie.

As a last resort the Council can employ a contractor to clear infested properties but invariably the ratepayers have to foot the bill.

"It recently cost the Council \$2,300 in rates revenue to bring prosecutions to the district court, and we got nothing back in fines," said Cr Mackenzie.

"We've approached Federated Farmers with the suggestion of using contractors on bad properties, but they do not support the idea".

To add to the Council's dilemma, the Government recently abandoned a weed spraying operation under the Project Employment Programme (PEP). Farmers used to employ the Council's PEP weed spraying gangs, but protests from weed spraying contractors brought a stop to the operations.■

(WAIKATO TIMES 22-2-83)

RAGWORT POISONING

- A LETTER TO THE EDITOR OF THE OTAGO DAILY TIMES

SIR, - May I make a plea to prevent someone from making the same mistake as my sister and I did. Occasionally we hear about the death of a horse through ragwort poisoning. We are led to believe that it is a rare case and highly probable that it was caused through neglect. At the beginning of this year, our pony was put down as a result of ragwort poisoning. Initially our paddock showed only traces of the noxious weed which I was assured by many would cause no trouble, unless a pony became desperately hungry.



Not true! After three years with not a sign of trouble, we were suddenly hit by a trail of illnesses all related to the poisoning, and although the paddock was by this time flourishing in the weed; this did not enter our minds (or apparently the vet's) as a possible cause. Two ponies died; we were later told as a direct result of ragwort, but at the time secrecy prevailed and other causes blamed. Blind to the ever-abundant weed, we eventually found our pony in an advanced state of poisoning. We took the only available option, and had her put down.

Now as I look round and see the same situation arising too frequently, I hope that maybe these owners can be awakened to face the very real threat which confronts their horses.

Ragwort is a noxious plant. Its growth should be controlled accordingly.

HORSE LOVER

(OTAGO DAILY TIMES 11-3-83)■

RAGWORT PROBLEMS

DIFFICULTY THIS YEAR - GANGS START WORK

42 Years Ago

HANDICAPPED to a serious extent by the shortage of poisons and reduced funds both the Whakatane County Council and the Native Department are making the best of the position regarding the control of ragwort this year and have planned to do their utmost to control the menace to farm lands by the use of labour for cutting.

Gangs are at work on Native lands, while the County Council has also started three gangs, these being in the Waimana, Whakatane and Rangitaiki districts. The Council has had its allocation of funds reduced this year to £2,000 and this sum will be expended on labour for cutting only, both sodium and atlacide being deleted.

The Council, having a limited supply of sodium on hand, is selling this small amount in lots of 25lbs per farmers per month, and already the stock is diminishing rapidly.

At the last meeting of the County Council some discussion took place regarding the method of sale of the meagre stock of poison, but the chairman, Mr J.L. Burnett voiced the feeling of the meeting when he stated that they had adopted the fairest way in which the Council could handle a difficult position. "It is a serious problem", he said, "and the danger is that all the good work done in the past will go back overnight."

Cr W.A. McCracken had pointed out that the system of allowing each farmer 25lbs per month meant that some settlers would be able to get all, and more even, than they required while others would be unable to cope with the pest on the allocation of 25lbs per month. However, he agreed with the chairman that farmers were not likely to buy more than they required and it was the fairest way the Council could handle the situation. ■

(THE WHAKATANE BEACON 7-11-41)

WANAKA BEING CLEARED

AN ALBERT TOWN OPERATOR, Mr Fekke Venema, has been awarded a contract to clear lagarosiphon weed from Roy's Bay in Lake Wanaka.

He is using his launch, equipped with a suction pump, to pull up whole plants from the lake bed from depths of up to six metres.

Mr Venema goes over the side in diving gear to operate the suction hose, like an underwater vacuum cleaner.

The job, covering the destruction of weed patches from Eely Point to the Rippon Lea corner of the bay was due to be completed by March 15. ■

(SOUTHLAND TIMES (INVERCARGILL) 24-2-83)

NOXIOUS PLANTS BATTLE

MATAMATA COUNTY COUNCIL is fighting a losing battle to control noxious plants, and ratepayers are subsidising the costs, says noxious plants committee chairman Ian Mackenzie.

Looms in Matamata

Cr Mackenzie said that under the "toothless" Noxious Plants Act, irresponsible landowners were the winners and good farm managers the losers.

So the Council has resolved to press for an amendment to the Act to allow local authorities more confidence when prosecuting landowners who refuse to clear their properties of noxious plants.

"Ratepayers are subsidising the cost of the Council dealing with irresponsible landowners and the good farm managers are having their properties unnecessarily infested with noxious plants", said Cr Mackenzie.

Ten percent of the property owners in the county were causing the Council real problems.

A sequence of events led to a meeting with members of the regional controlling authority last week. But the answer the Council got was that weed-infested farmland is the Council's problem, not the landowner's.

The sequence of events:

Some landowners refused to act despite being served with notices from the Council demanding them to clear their weed-infested properties.

Two of the Council's Noxious Plants Officers - and in some instances, the Council riding member - visited each offending landowner with further notices which warned that legal action might follow. Still some owners refused to control infestations.

Final notices warning of impending prosecution were sent by registered mail. But some landowners refused to sign the accompanying receipts when they realised what the marked envelopes contained.

Meanwhile, seed from weed-infested properties spread to clean adjoining farms, the owners of which will now be faced with further expense on weed eradication next season through no fault of their own.

The offending property owners were served with prosecution notices. In court they pleaded not guilty on the grounds that they never received the notices, despite accepting and acknowledging rates demands sent to the same address.

As there was no evidence of them receiving the notices, the defendants were acquitted.

Advice was sought by the Council from its legal experts and the N.Z. Counties Association which advised the Council that the best method was the one which had already proven ineffective.

According to a report tabled at last week's Council meeting, Hamilton Regional Noxious Plants Co-ordinating Committee chairman Geoff Miller had told the Council's Noxious Plants Committee that the responsibility of weed eradication rested with

Planting Policy

"AUTHORITARIAN"

"A SWEEPING, authoritarian measure to bar people from planting up their own land".

This was how one member of the Marlborough Catchment Board described proposals to change policy regarding the planting of trees on land infested with nassella tussock.

If passed, the policy will mean no trees may be planted on land, in the Marlborough and North Canterbury Nassella Tussock Board area, that has not been cleared of the noxious weed for at least 10 years.

The policy will also give the tussock board the right to decide where forestry planting will and will not be permitted in relation to infested areas.

◀ BOMBSHELL

Its imminence proved a bombshell to some catchment board members, and also to the Marlborough Forestry Corporation in which the board is a shareholder.

The Corporation recently bought some land at Waikakaho, which falls into the category where block forestry planting will not be permitted if the policy proceeds.

The Catchment board's chief soil conservator, Mr Ross Macarthur, also principal executive officer for the Corporation, said it was not until Monday, 22 February that he had any idea the policy was in the offing.

He said at yesterday's board soil conservation committee meeting that the corporation had been told regulations would be coming forward from the Noxious Plants Council prohibiting tree planting on nassella infested land for up to 10 years after it was cleared of the weed.

He said his own inquiries had confirmed that such a policy was being formulated at an inter-departmental committee level, and that in mid-March the policy would be put before the Noxious Plants Council for a decision.

◀ LAND DEVALUATION

If the policy is passed it will have obvious ramifications, such as land devaluation, Mr Macarthur said.

"When, as the board is faced with, secondary land that cannot be viably maintained as pastoral land is not able to be planted in trees either, then it will go out of production altogether", he said.

Mr Macarthur urged the committee to make some decision on whether something should be done about the situation, such as making submissions to the Noxious Plants Council and the National Water and Soil Conservation Organisation (NWASCO).

He said he felt some sort of submissions should come from the board, especially in regard to the land use aspect.

The proposed policy is far too sweeping and has not been formulated with thorough and appropriate consultation from groups involved. There will be thousands of acres

affected, private, Crown and Forest Service land."

In the past, policy to control nassella tussock has been to plant trees - the exact opposite of the proposed policy. However, Mr Macarthur said this has not worked because the tussock seeded under the trees and when the timber was felled there was an explosion of nassella.

The New Zealand Forest Service representative on the board, Mr Ross Wylie, said he felt all the board could do was draw the proposals to the attention of NWASCO who could then talk it out with those developing the policy.

However, he added that he did not agree with the policy.

"The policy is a sweeping, authoritarian measure to bar people from planting up their own land, especially if that land cannot be used for farming," he said.

◀SWEEPING POLICY

"It is a terribly sweeping policy and I wonder if it will be in the best interests of those involved.

"I personally feel more effort should be put into researching the problem and developing a chemical to knock the stuff out".

The committee agreed to write to the Noxious Plant Council, NWASCO and the M.P. for Marlborough, Mr Kidd, asking for full consultation between the board and other interested parties and the council before any policy is passed.

The board was to consider the matter at its monthly meeting in early March.■

(THE MARLBOROUGH EXPRESS 1-3-83)

Hemlock in Egmont

ERADICATING THE noxious plant Hemlock in the Egmont county is proving a slow business.

The Noxious Plants Officer for the County, Mr Tom Coupe said a public notice had been put in a local newspaper asking people in the area to deal with the weed.

"However, the response has not been very good," he said. "People seem reluctant to deal with the problem. If it is growing on the roadside people believe it is the county's responsibility, or the National Roads Board's."

Mr Coupe said the weed was proving a problem in the Rahotu area where it seemed to be most prevalent. The county had been negotiating with the owners of infested areas but getting the weed cleaned up was a slow process.

For their part the County Council had been working on cleaning up areas "in their own backyard", he said, and hemlock in the Opunake domain had been sprayed.■

(THE DAILY NEWS 18-1-83)



A ROSE BY ANY OTHER NAME....

RAGWORT (*Senecio jacobæa*)
Perennial or Biennial

Local and Popular Names :

Agreen, benweed, bindweed, binweed, booin, bowens, bowlochs, bunnels, bunwede, cammock, cankerweed, cheadle-dock, cowfoot, cradle-dock, cushag, dock (kadle, kettle), dog-standard, fairies' horse, fellow-weed, fiz-gigs, fleedod, fleenurt, flydod, grundswaith, James' weed, James' wort, keddle dock, marefart, muggert, ragged Jack, ragged Robin, rag weed, rag wort, St. James' wort, scrapeclean, seggrom, seggy, sigrim, stagger-wort, staner-wort, staverwort, stinking alisander, stinking Billy, stinking Davie, stinking elshinder, stinking-weed, swine's cress, swine's grass, tansy, weeby, yack-yard, yark-rod, yellow ellshinders, yellow-weed.



Re-printed from:

"FARM WEEDS- An Aid to their Recognition."

Published by the Shell Chemical Company
(Year of publication not stated in book)

Staff Perplexed

LOCAL BODIES gunning for farmers who breach noxious plant regulations should look at the Otamatea County Council for guidance.

(or is it Bedeviled?)

The Council was told yesterday by Noxious Plants Officer, Mr P.W. Joynt, that the new policy of control which deferred legal action until the very last stages had received fair co-operation.

However, weeds still remain a serious problem to the County.

The Council is opposed to the idea of cleaning the farmers' infestations and presenting the owner with an account as it is difficult to get money out of some people. As a last resort it prosecutes.

Councillor H.F. Wright, during a discussion on noxious plants on roadsides, particularly ragwort, said Council should spray any the Council may have carried there via a county grader.

It was pointed out that any noxious plants are the responsibility of the property owner to the middle of the road. Mr P. Higgins said the idea of someone else being responsible for putting it there comes up from time to time and needs to be looked at.

Councillor H. Wright moved that where a noxious plant has been proved to be distributed by county workmen, Council would remove the plant but this motion was lost.

The chairman, Mr D. Fagan, said he expected the staff at all times to use common sense, and Councillor Wright agreed.

Councillor R. Skelton said it would not cost much and would save a lot of further infestation if it was done when it was first noticed. ■

(NORTHLAND TIMES 27-1-83)

P. Contorta "Must be Classified!"

PINUS CONTORTA MUST BE CLASSIFIED as a noxious plant, even if only in principle.

That is the strongly held view of the Marlborough District Noxious Plants Authority. Recently it decided to write once more to the Noxious Plants Council to have it declare P. Contorta a Class B weed.

The Council advised that it proposed to gazette contorta as a Class B weed in the central North Island and to pay for its eradication from two blocks of Maori land.

Executive Officer, Mr Dave Olliver, said he contacted the Council's secretary in February after the Council meeting at which Marlborough's second application to have contorta gazetted was considered.

He was told the authority would again have to hold meetings with all concerned parties and reach agreement on an eradication or control programme.

◀RIDICULOUS

He said that meetings had already been held with all, but agreement would never be reached on the exact programme. He thought it ridiculous that the authority should have to go through the whole business again.

In his opinion the Council should support and not frustrate the authority.

He pointed out that the contorta problem in the central North Island had been recognised in the 1950s, had been written about in the 1960s, had grown extensively in the 1970s and something was finally going to be done about it in the 1980s.

He hoped it would not take that long in Marlborough.

Mr Olliver said he was not advocating that it be classified as a B weed. The authority had decided that already. He was advocating that it be so gazetted.

He said the Land Settlement Board favoured contorta being declared a noxious weed on a regional basis. The Forest Service had recognised the plant was potentially troublesome. It would monitor its spread from plantings and take necessary steps to prevent it from getting away. He said that none of these promises could be enforced or further plantings prevented.

Mr Edwin Pitts said Federated Farmers had discussed the problem for about 20 years, but had met brick walls. He said only one of the three council members who had inspected the contorta problem in Marlborough had attended the Council meeting.

◀NOT UNREASONABLE

Mr Peter Yeoman said the policies of the Forest Service and Catchment Board and the authority were more closely in agreement.

It was not unreasonable to have contorta gazetted.

The chairman, Mr Brian Schwass, said there was now a gentleman's agreement about contorta control but the authority had no power to enforce it. In five or six years, personnel might well have changed with elections, promotions or demotions.

The meeting decided to write a forceful letter to the council, seeking at least approval in principle for gazetting contorta as a class B weed in Marlborough. ■

(The Marlborough Express - 23-2-83)

Application Over

PINUS CONTORTA

declared noxious within its area. ■

FOLLOWING recent outbreaks of the plant on isolated pieces of land in the area, the Opotiki County Council will be applying to have Pinus Contorta

(DAILY POST - 28-1-83)

BIRDSEED the CULPRIT?

CUSTOMS

CONTAMINATED BIRDSEED for a canary is believed to be the cause of the clump of noxious Johnson grass found in the Motueka area in February.

The plant was found in an area where a birdcage is emptied.

The Waimea County's Senior Noxious Plants Officer, Mr Graham Strickett, said that because the plant was an isolated one, the birdseed was the most likely cause.

The metre high plant was found beside an irrigation pipe and conditions were ideal for it.

This was the first recorded appearance of the weed in the South Island.

Johnsone grass is now fairly widespread in the central North Island and Mr Strickett said it could easily become a contaminant in birdseed.

Mr Strickett said any cage bird owners finding weeds growing which they cannot identify and which they suspect might be Johnson Grass should contact a Noxious Plant Officer or the Ministry of Agriculture and Fisheries immediately. Contaminated birdseed has in recent years been responsible for a number of cannabis plants.

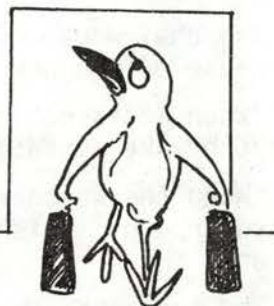
● NEEDLE GRASS

Meanwhile, the County Noxious Plant Officers are worried by a growing area of Australian needle grass in the Richmond Hill area. They are doing a survey of two farms and believe the infestation has grown to about 20 acres.

It is the only known incidence of needle grass in New Zealand and the officers have been having difficulty getting information on the plant.

Needle grass grows to about 2 metres tall and has a fine fluffy head. The leaf is unpalatable to stock.

The outbreak is near an old packing trail and the Noxious Plant Officers suspect the weed has been there for many years, perhaps brought in by miners.



Mr Strickett said it was controlled by two-yearly burnoffs in the past, but with nearby forest plantings, farmers cannot now do their regular burns. ■

(NELSON EVENING MAIL 11-2-83)

Weather Clears Up Lake Weed

VALLISNERIA GIGANTEA, the water weed that haunts Lake Pupuke, has been vanquished - by this year's freak summer weather.

In previous years, lake users and residents around the lake have been bothered by thick growths of the lake weed. It washes up on the shores of the lake and rots, causing an offensive smell.

This year, however, the weed problem has been absent.

The chairwoman of the Lake Pupuke Advisory Committee, Mrs Wyn Hoadley, said that because of the unusual weather in Auckland the weed had not grown.

"When it is hot only the top half of the water turns over, causing weed growth on the lake surface," she said.

"When the weather is cold and windy the whole lake turns over and there is no weed growth. This summer we have had a lot of wind and temperatures have been down."

The increased swan population is also thought to have had some effect.

Moreover, a new algal growth in the lake has provided competition for the weed.

Mrs Hoadley said that the combination of the three might be the reason for the absence of weed.

The Auckland City Council western parks officer, Mr Bruce Reed, said the Western Springs Lake had also had a decline in lake weed. He thought the weather, coupled with last year's frosts, was the cause. ■

(N.Z. HERALD 10-3-83)

2,4,5-T Cleared in Britain

The controversial herbicide, 2,4,5-T, has been cleared by the British Ministry of Agriculture Advisory Committee on Pesticides for continued use.

But the Committee has recommended further investigation into claims that it increases the risk of a rare type of cancer.

Last year, the British Labour Party demanded an immediate ban. ■

(N.Z. HERALD - February 1983)



CAPE DAISY SPREAD

URBAN NEWS

AUCKLAND'S CENTRAL DISTRICTS are over-run by semi-noxious weeds called the Cape Daisy.

Upsets Epsom Man

This little yellow daisy is becoming prominent in many of the grass berms and private gardens in Mt Eden, Mt Roskill, Epsom and many other central and eastern suburbs.

"Nobody is doing anything about it", says one angry Epsom resident, Mr George Homewood.

"The Council should definitely have a look at the problem and get stuck into hammering it out," he says.

But Regional Noxious Plants Officer Mr Austen Gates says action is already being taken.

He says the Cape Daisy is not classified as a noxious plant and there have been very few complaints about it. "But it's got to the stage where we are keeping a pretty close eye on it."

The flower becomes very noticeable at this time of the year. "We are aware of it spreading over the last two or three years. But more people are also becoming aware of it and seeking measures of control.

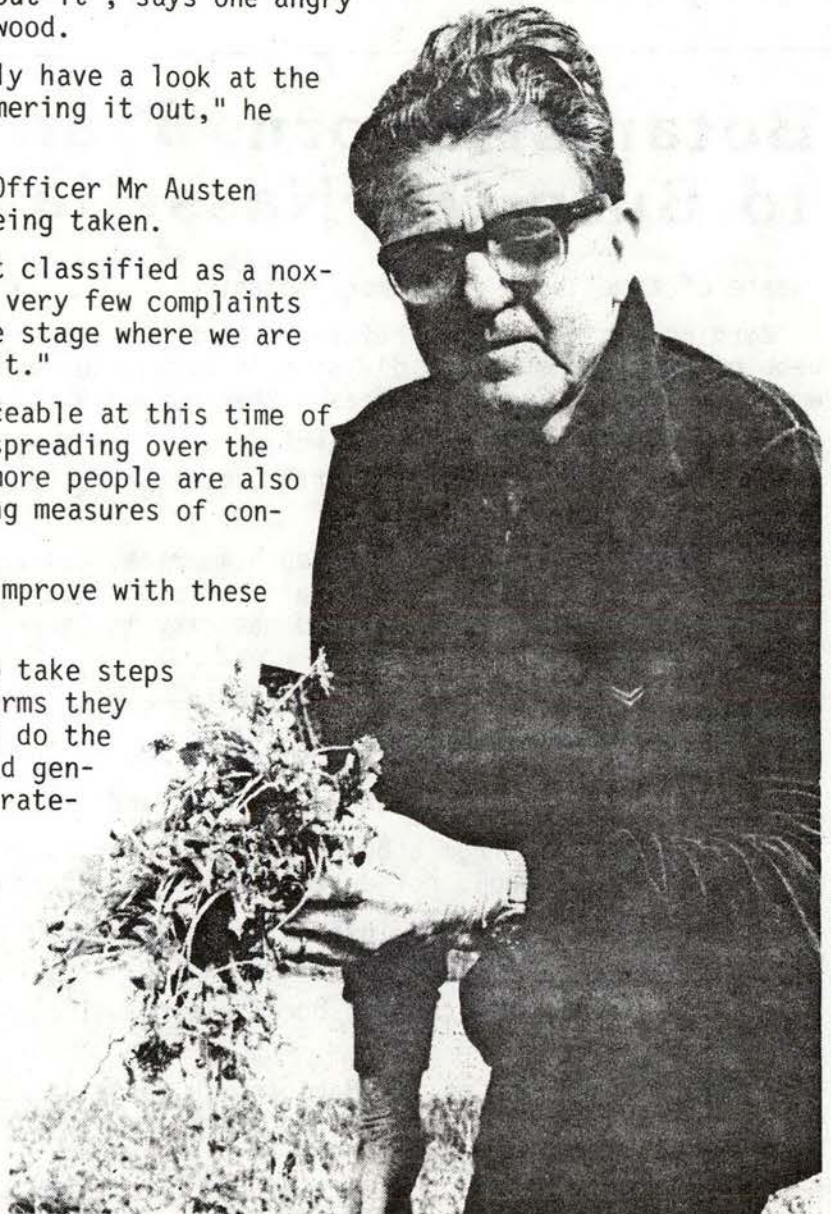
"I think the situation will improve with these measures."

He says if Councils wanted to take steps to eradicate the weed on the berms they could get contractors who would do the job successfully, but this would generate quite a major expense to rate-payers.

But this type of work is being done in local parks and reserves, he says.

Mt Roskill borough engineer Mr Peter Kovacevich agrees the Cape Daisy has spread and is much more noticeable this year.

"But it requires some very heavy weedicides to control it, which could affect other vegetation. "It is not a programme we are keen to embark on."



Mr George Homewood holding the yellow daisy which is spreading through the central suburbs.

And he says, digging up the Cape Daisy would not go down well with residents. "Those who are particularly concerned usually treat it themselves."

Mr Homewood suggests the Cape Daisy be dug up as a holiday job for students and possibly legislation be introduced that people keep their own properties free of the flower.

He says the main concern is that it does not reach farms. But this does not appear to be a risk at present, according to Mr Gates. ■

(CENTRAL LEADER 18-1-83)

Botanist Scorns Plan to Burn-Off Nassella

LANDS AND SURVEY DEPARTMENT plans to try and control the weed nassella tussock through a big South Island burnoff in February have been labelled a

"waste of time" by a government botanist.

"Burning has been tried before in North Canterbury and Marlborough", Dr Colin Webb of the DSIR's botany division in Christchurch said in February. "It doesn't work and if anything it increases the incidence of nassella tussock."

He was commenting to the "Post" on Lands and Survey plans to burn off 95 hectares of hill and gully country in North Canterbury as part of its war on nassella tussock.

The tussock, originally from South America, was accidentally introduced into New Zealand in the 1920s. Dr Webb said the plant was highly prolific and produced 120,000 seeds a year. It reached maturity in three months and the plant simply kept on going.

"Old man nassella just keeps on turning out seeds," he said.

Nassella seeds can also lie dormant in the ground for up to 20 years.

Nassella is highly unpalatable to stock and also kills off other pasture.

Dr Webb said fire from a burnoff would only destroy seeds found in the upper part of the plant. It would not destroy seeds in the roots of the plant.

"Nassella is such a good invader of bare country that a fire would help it," he said.

"Fire is a method which just doesn't work. I can't understand why Lands and Survey would do this."

Dr Webb, who serves on the Marlborough nassella control board, said cultivation of forests over the tussock did not work, and chemical controls were too expensive and damaged other pasture.

The only way to control the tussock was to grub it out, he said. ■

(EVENING POST 23-2-83)



KEEP YOUR SPRAY EQUIPMENT TROUBLE FREE:

- **Calibrate and test before use**
- **Check that pumps, hoses, valves, regulators, gauges, filters and nozzles are working properly**
- **Repair leaks, blockages, etc.**
- **Clean after use**
- **Store safely**

AgLinks on various aspects of Agricultural Chemical Application and Equipment Maintenance are available from Media Services, Ministry of Agriculture and Fisheries, Private Bag, Wellington.

Extension Bulletins on Calibration Procedures and Spray Recording Sheets are available from New Zealand Agricultural Engineering Institute, Private Bag, Hamilton.



The Agricultural Chemicals Board, Private Bag, Wellington.

Can't See the Trees for the

by
HENK HILHORST

"FOREST OF WHISKERS"

OLD MAN'S BEARD NEEDS TRIMMING with a slasher, and daubing with 245T as an after-shave.

Failing to do so, and the "hirsute" climbing plant may cover the face of the country, and in the process smother much native bush.

Its botanical name is *Clematis vitalba*. Other common names are, inexplicably, traveller's joy and, more aptly, mile-a-minute.

The climber was introduced to New Zealand as a garden specimen. It hails from the Mediterranean region and is known to be a pest in French vineyards and German pine forests.

It does the same to grapevines and pine trees as it does to native bush - smothers the lot.

Old man's beard is becoming an increasing pest in Marlborough, particularly in the Sounds and coastal areas.

● SUBJECT OF SEMINAR

The caretaker of the nation's bush and reserves, the Lands and Survey Department, is worried about it. It has organised a one-day seminar in Wellington to discuss ways to fight the bothersome beard.

The name, old man's beard, probably stems from the seed stage, when fluffy grey hairs cover the fruit. The vine flowers at about this time, and seeds in autumn.

The pest belongs to the Ranunculaceae family which includes incidentally, the yellow buttercup. In Europe its vines are used for basket-weaving.

Like the willow, clematis hybridises readily. In some areas *C. vitalba* has hybridised with an equally vigorous species from the Himalayas, *C. montana*. In Central Otago the closely-related *C. tangutica* has been identified.

Because it is such a vigorous plant, nurserymen use it as a rootstock for the large-flowered garden hybrids.

● SPREADS SWIFTLY

One of the big worries is the speed at which old man's beard can smother the bush that supports it. Its vines grow several metres during the season.

It can reach a height of 15m and a single plant can cover 180 sq.m.

Also, when vines creep along the ground they may take root every 15cm or so, and form new plants.

The pest seeds prolifically. Seeds can be windborne for many a kilometre. A seedling count near a vigorous plant came to 600 in one square metre. There were more, but the chap counting them became eyesore and gave up.

This clematis readily strikes where natural vegetation has been disturbed. Roads

and tracks through bush give it a chance to colonise, which it does quickly.

The Taihape area is heavily infested. Plants with vines 20cm thick have been found there. One plant is said to have covered 90ha in eight years.

Animals eat young plants, but like most of the ranunculus family, the plant is poisonous at some stage. It can cause skin ulcers.

Old man's beard is at home along riverbeds. In fact, it likes good draining soils containing lime and phosphorous. It likes regular rain.

Still, the plant is adaptable and can be found on the wet West Coast as well as in dry Central Otago. There it has even taken root on gold-dredge tailings.

● A PROBLEM

Clematis Vitalba is a problem in Marlborough particularly along the coast. Along Queen Charlotte Drive it got away, and is smothering patches of bush.

The Marlborough District Noxious Plants Authority was asked to do something about it, but the weed falls outside its jurisdiction. The Regional Development Council requested some action because the plant could damage the scenic value of the drive.



Old man's beard in flower — the stubble stage. The hairy stage comes with seed development.

The authority's chairman, Mr Brian Schwass, says old man's beard is not a classified weed. Only weeds that endanger primary production are classified. It would not do to classify every troublesome plant. Under the old Noxious Weeds Act, 40 weeds were classified, and nothing much was done about most of them. This attitude caused the demise of the old act.

"If we don't watch out, the new act will end up the same. We can't go for the lot. We have to be selective," Mr Schwass says.

Along with old man's beard, Hawaiian passionfruit covers the bush along Queen Charlotte Drive, he says. All the authority could do was to give advice on how to control the weed. He said that the Cobham Outward Bound School had decided to clear weeds from the drive.

C. Vitalba has become a big problem in some places. The Rangitikei County Council is said to have spent \$40,000 on its eradication from reserves. For a while things looked good, but then the vine reappeared and is now as bad as ever, if not worse.

●METHOD UNDER STUDY

Under consideration is the total use of 245T to kill the vine and with it the bush then to allow the bush to regenerate.

More than 30 reserves in the Wellington district are infested and in Central Otago old man's beard, or its close cousin, Clematis tangutica, cover the shores of rivers, dredge tailings, and vacant lots.

The vine is bothersome at Peel Forest in Canterbury, in Wairarapa and along the Wanganui River banks. The North Canterbury Catchment Board spends about \$25,000 a year on controlling it in the Ashley River bed.

In Marlborough, old man's beard is becoming a nuisance along the Kaikoura coast, in the Awatere Valley and in the Sounds.

Maritime Park ranger Mr Mike Clare wonders whether the vine warrants all the attention it gets. The plant has been in New Zealand for three score years or so, a very short time ecologically. He thinks that nature will sort it out eventually. In the meantime, in its native Germany it is a problem in pine forests where it smothers trees. Old man's beard may not be such a bad thing in the Sounds, Mr Clare says.

A major problem with the weed is that eradication is labour intensive. To kill a vine, a piece has to be cut from it at about knee height. The stump has to be treated with 245T or another strong weedicide. No part of the cut vine should be left on the ground, or allowed to touch the ground. Otherwise the vine can take root again.

Another problem is that hybrid clematis is often grafted to C. vitalba. When the hybrid fails the rootstock may still take off.

The Express photographer needed to walk only 100m from his darkroom to photograph an old man's beard in flower. It was rampant in a backyard.■

(THE MARLBOROUGH EXPRESS 3-2-83)

WILEY PINE

Prompts Big Weeding Chore

WEEDING IS always a bit of a chore, but imagine weeding an area 4-5km wide and 25km long!

Workers at Kaimanawa Forest Park are doing just that to stop the spread of *Pinus contorta* into the park.

Pinus contorta, or lodgepole pine, was extensively planted in New Zealand early this century for shelter belts and timber.

The trees seed vigorously and in many places have spread from the original plantings.

As well, it's a hardy tree that will grow at very high altitudes.

Contorta was planted as shelter belts at Waiouru Military Camp, and as a timber tree in Karioi Forest on the southern slopes of Mt Ruapehu in the late 1920s.

Seed from the trees spread north and west aided by the prevailing southwest winds.

Young trees are now found in Tongariro National Park, and on Ministry of Defence land, and nearby Maori lands.

The original trees in Karioi Forest are gradually being removed and other species have been planted round them to stop them spreading.

Every year workers from Kaimanawa Forest Park spend about three weeks removing young pines from a 4-5km wide strip of Ministry of Defence land south of the park.

They also "weed" the Maori land between the Desert Road and the park's western boundary.

By keeping this buffer zone free of the pine we hope to stop any major spread into the park," explains forest ranger Mr Dave Wilson.

There are a few trees in isolated parts of the park.



FOREST RANGER Dave Wilson points out a young *pinus contorta* seedling growing on military land south of Kaimanawa Forest Park. Park staff carry out an annual "weeding" programme on a large buffer zone west and south of the park to stop the pines from spreading.

"We pull out any we see, and we ask visitors to watch for them and either remove them or tell us where they are."

● HARD WORK

The weeding is hard work.

Twelve or fifteen workers move in a long line about 40 metres apart. The land is mostly covered in tussock and often the young pines can't be seen until they are about three years old.

"As long as we catch them before they seed we're happy," Mr Wilson says, "but this can be as early as four years old."

When a pine is spotted it is either pulled out by the roots, or if it's too big for that, it is chopped off at ground level. Even the tiniest shoot left on the stump will flourish.

On the steeper country closer to the park a helicopter is used for the weeding.

A "spotter" sits up front.

When any pines are seen the helicopter hovers and one of the weeders jumps onto the slope to clear the area.

"This way we can check and weed the steep rocky faces very quickly," Mr Wilson says.

Part of the buffer zone is weeded every year and now all of it has been covered twice, some of it three times.

"It will have to be an ongoing programme," Mr Wilson says, "but hopefully we will achieve our objectives of keeping the park free of any heavy infestation."

● CONTRACTORS

Programmes to control contorta have been under way in Tongariro National Park since the 1960s, and in recent years the Army has employed contractors to remove the pines from Defence land.

Recently the Noxious Plants Council decided to pay for removal of contorta from the nearby unoccupied Maori lands, and has asked the Forest Service and the Department of Lands and Survey to prepare estimates for the exercise.

With all the agencies concerned working at the problem, maybe the "wiley Weed" will eventually be brought under control. ■

((NAPIER) DAILY TELEGRAPH 4-1-83)

PRIVIT TRIALS PROMISING

PRIVET CONTROL TRIALS in Te Teko and Braemar Road have had immediate results.

But the Whakatane District Council Senior Noxious Plants Officer, Mr Terry Regan, told a general purposes committee meeting in February the long-term effects had yet to be assessed.

A Ruakura Research Station scientist began control work on privet in December using a number of established and new chemicals.

Though the privet appears to have been killed by the applications, full results will not be known for some time. ■

(THE WHAKATANE BEACON 162-83)

UNREASONABLE ?

ON THE BASIS OF information given to a Waikato County Noxious Plants Authority meeting in March many people will wonder, along with authority chairman, Ken Holmes at the "hard-nosed attitude" of weed spraying contractors.

Mr Holmes said the Contractors' Federation had recently approached the Labour Department claiming that assigning project employment programme workers to weed spraying was taking work from them. Now there was a ban on PEP workers doing spraying.

But, he said, when contractors had been asked to spray the stumps of weeds cleared by PEP workers they had declined because of "other commitments".

It would seem that either the contractors need to check out the situation more thoroughly before rushing off to the department - or the department needs to check out claims made to it more thoroughly before taking action. ■

(WAIKATO TIMES 11-3-83)

THE GEL HERBICIDE

RUAKURA SCIENTISTS have made a major breakthrough in aquatic weed control.

Their success has been demonstrated by trials in Hamilton's Lake Rotoroa last year where it has now been proved all unwanted weed has been controlled.

The scientists have developed a gel-herbicide mixture which means aquatic weed-destroying chemicals can be accurately placed, overcoming the many spraying problems of the past.

In August, trial plots at Lake Rotoroa were sprayed and the next month the application was widespread.

Dr John Clayton of the Aquatic Plant Section at Ruakura said researchers had been developing and testing different gel-forming methods for use with the herbicide diquat.

"It's not the product that has been the problem, it is the way it was applied," Dr Clayton said. "Really what we achieved is a breakthrough in the way a product can be applied."



"The addition of gel agents to diquat resolves problems of aerial drift and minimises water drift," he said. "The gel-herbicide mixture forms strings or droplets in the water which sink down to where the target plants are growing.

"The gel then dissolves, releasing herbicide into the water in close contact with the plants and giving maximum kill."

Making the herbicide chemical heavier by mixing it with a gel had overcome other application problems such as currents and variations in water density at different levels, and temperature variations. As well, experiments had shown the chemical treatment of underwater weed was now possible in mid-winter. Summer had been the traditional spraying time.

"The advantage of spraying in winter is that decay rates of weeds are less and water is not de-oxygenated to the same extent. This is obviously important for fish and wildlife," Dr Clayton said.

However, removing all weed from lakes and rivers was not the object. "If you took all the weeds out of a lake you'd make it a desert area."

The gel-herbicide mix has a viscous, mayonnaise-like consistency and we have no difficulty putting it through conventional application equipment," he said.

The gel material which was being used was now readily obtainable in New Zealand, he said. It added less than one per cent to total spraying costs, but even more significantly, with more accurate placement, smaller amounts of chemicals would be needed.

The Ruakura team were to go to Lake Rotokauri yesterday to look at results of a trial spray made there recently.

Dr Clayton said the team had been working with the Lands and Survey Department which does do all the weed spraying on the Rotorua lakes. The department plans to use the new gel-herbicide. ■

(WAIKATO TIMES 16-3-83)

AQUATIC WEEDS SEMINAR 1983

A DEMONSTRATION OF THE effect of herbicides on vegetation in drainage systems and waterways in the Manawatu will be part of a three day seminar on aquatic weeds which will be presented at Massey University beginning on May 21.



**AGRICULTURAL AND HORTICULTURAL
SCIENCES EXTENSION**

Massey University

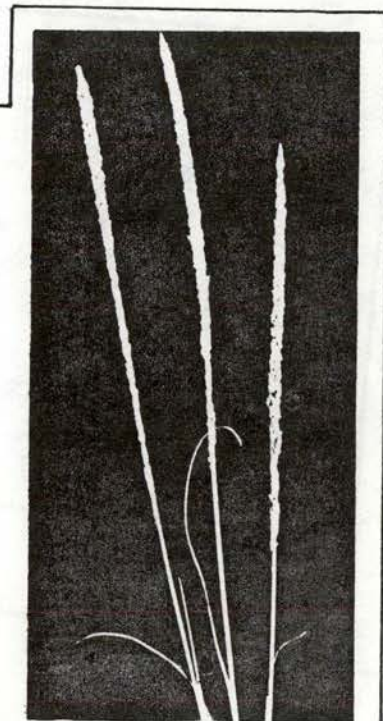
The field trip demonstration is only a small part of a packed programme which is expected to be of particular interest to catchment, drainage and river board personnel as well as advisers, contractors, commercial organisations and farmers.

Topics to be covered include the identification of aquatic weeds, their effect on the environment, and the economics of measures taken for control. Control by chemical, mechanical and biological means, including safety aspects, the legal safeguards necessary, and water rights, will be discussed.

Practical methods of water weed control will be covered, sometimes involving commercial demonstrations. Aerial applications of herbicides, weed boat operation and the use of grass carp for weed control will be covered in papers by persons experienced in these fields. Reports of recent research will also be a feature of the programme. ■

(WAIKATO TIMES 16-3-83)

RATSTAIL RESPONSE



DEAR SIR,

I noted in the last issue of 'Protect' a query from a Blenheim writer, concerned with the control of Ratstail in Pasture.

For the past two years Monsanto has carried out quite an intensive trial programme on Ratstails in pasture using Roundup® herbicide. Our research to date indicates Roundup® herbicide at three litres per hectare applied in March, April, during autumn pasture flush, achieved a high level of control. It must be noted that ratstail has to be in active growth and not under another stress, such as drought. Post spray management factors are therefore important to ensure a closed sward of desirable pasture species to prevent a reinvestigation of ratstail. Once brownoff has occurred (which can often take up to nine months), over-drilling may be carried out.

Although these results are preliminary and a controlled research programme is on-going, some small scale commercial plots are being applied this autumn for field investigation.

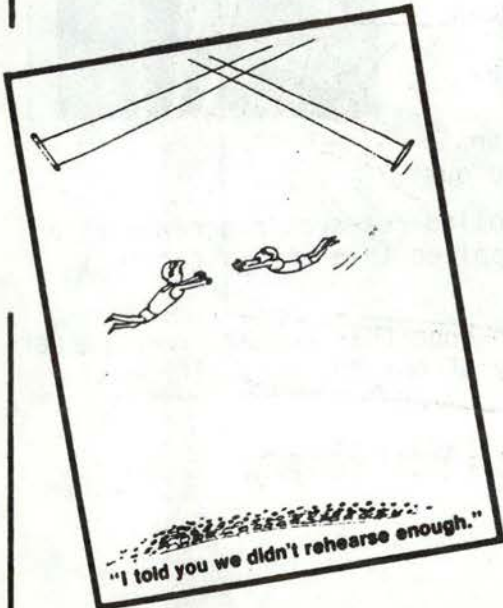
Congratulations on an interesting magazine and I do hope this answers your readers query, if not we would welcome further contact at any of our Monsanto offices.

Yours sincerely,

Owen Park
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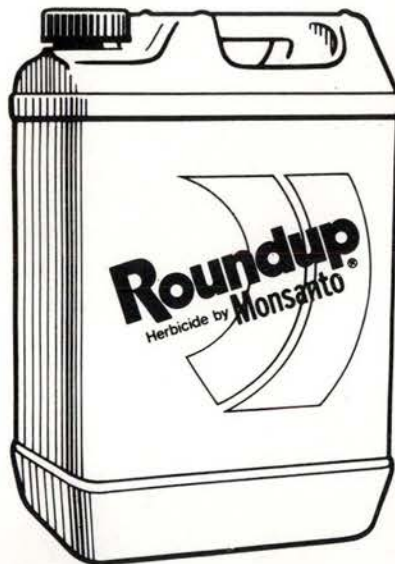
For cost-effective results on a wide range of weed infestations, Roundup® herbicide combines the broad spectrum control you need with the safety that's so important to both the user and the environment.

Already Roundup can be used with confidence on any of the following weeds:

Barley Grass	Browntop
Volunteer (self-set)	Californian Thistle
Potatoes	Australian Sedge
Couch	Glyceria
Kikuyu Grass	Floating Sweet Grass
Paspalum	Mercer Grass
Rushes	Cutty Grass
Blackberry	Tall Fescue
Annual Weeds	Bracken
Nodding Thistle*	Ragwort*

*Registered for Ropewick application only.

Always read and follow label directions before use.



Roundup® - the list is growing all the time.



Shell Chemicals

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Growing Going



Gone

You might not think you have a problem when you spot those two small patches of Ragwort –

This time of year ragwort is on the move so don't take this innocent looking weed lightly, a matter of weeks is all that's required, and you're in trouble.

Trouble which need not happen if you catch ragwort rosettes at that vital early stage. The ideal spray programme is to use TORDON*50-D herbicide – as a spot-spray – followed by HI-ESTER 2, 4-D as a broadcast spray within 2 weeks.

Where plants are located in



areas impractical for spray application use TORDON* 2-G granules – just crunch the centre of a ragwort rosette and sprinkle a 3 finger pinch of Tordon 2-G the results will amaze you ...

Always be prepared, use Tordon 50-D and Tordon 2-G and watch your ragwort problem fade away to nothing ...

TORDON* 50-D
TORDON* 2G
herbicides



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