

**Awareness of hazardous  
waste issues among  
domestic and  
agricultural sectors in  
Canterbury**

Canterbury Hazardous Waste Working Party report R02/2 CHWWP  
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**Market Research Findings:**

**Awareness of Hazardous Waste Issues among the  
Domestic and Agricultural Sectors in Canterbury**

**Canterbury Hazardous Waste Working Party**

**May 2002**

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## **1. Introduction**

Opinions Market Research Ltd has designed and developed a cost effective tool, the Opinions Monitor, for measuring and gaining insight into attitudes and behaviour in the Christchurch and Canterbury Regions.

The Opinions Monitor is a telephone survey, conducted quarterly among a representative sample of 400 Christchurch residents and a total of 600 Cantabrians.

It is possible to place questions on this monitor quarterly, biannually, annually or on a one-off-basis.

## **2. Background**

In 2001 the eleven Councils in the Canterbury region devised a region-wide strategy for hazardous waste management.

The strategy is based on progressively reducing and ultimately eliminating adverse effects of hazardous waste on the environment.

Market research was required to establish the current level of awareness and understanding of issues relating to hazardous waste among both the domestic and agricultural sectors. The Opinions Monitor provided an effective tool for gathering this information.

The questions were placed on the May 2002 Monitor.

## **3. Research Objectives**

The objective of this research was to provide, for domestic and agricultural sectors, baseline data from which changes in awareness of and means of disposal can be monitored over time.

More specifically:

- To measure awareness of hazardous waste, including which items are considered to be hazardous.
- To determine the extent to which people are aware of the appropriate means of disposal for hazardous waste.
- To evaluate perceptions as to who is responsible for the safe disposal of hazardous waste.
- To identify levels of awareness of the availability of facilities for the disposal of hazardous waste.

- To measure awareness of who to access advice from on the disposal of hazardous waste.
- To assess awareness levels of communications about hazardous waste.
- To identify attitudes towards user pays.

#### **4. Question Structures**

The questions used for this exercise have been appended to this report.

All questions have been analysed by demographics including, age, gender, ethnicity, and location of residence. Analysis of location of residence was based on the District Council areas within Canterbury (except Waitaki)

The questions utilised in the Opinions Monitor were designed by Opinions Market Research Ltd in consultation with Karyn Durham, Christchurch City Council and Darren Patterson, Environment Canterbury.

#### **5. Sample Structure and Research Approach**

A sample of 400 Christchurch residents and 310 residents from the rest of Canterbury aged 15 or over were interviewed in the May 2002 Monitor.

Data was then weighted in order that the sample profile matched that of Canterbury as a whole.

Sufficient interviews were conducted in each district area to enable analysis of findings at district level, where questions were asked of all respondents. Sample sizes achieved in each district have been shown below:

Christchurch	400
Kaikoura	25
Hurunui	21
Waimakariri	51
Banks Peninsula	21
Selwyn	37
Ashburton	37
Timaru	66
MacKenzie	25
Waimate	25

Where subgroups only were asked, notably agricultural workers, analysis was only possible at an overall level.

Questions relating specifically to agricultural hazardous waste were asked only of people who work in agriculture in some capacity. A total of 109 respondents were identified to work in the agricultural sector.

The questions were piloted prior to the interviewing proper taking place (n = 10).

The interviews were conducted 23 May – 9 June 2002.

## **6. Survey Data**

The data from this survey has been provided in a separate data book.

## **7. Summary of Findings**

### **7.1 Household Hazardous Waste**

#### **7.1.1 Recall of Seeing or Hearing Something about Household Hazardous Waste**

- Some 17% of Canterbury residents interviewed recalled seeing or hearing something, about hazardous waste including 15% of those in Christchurch and 20% in the rest of Canterbury.

Recall was highest in Mackenzie (25%), Timaru (24%) and Ashburton (24%) and lowest in Waimate (8%) and Hurunui (10%).

- Overall, among those who had seen or heard something, the main sources of communication recalled were leaflets (37%) and television (36%).

Whereas in Christchurch leaflets (43%) and television (41%) were the main sources of recall, in the rest of Canterbury, newspapers were by far the most frequently mentioned source (41%).

- The most recalled kind of communication among those who had seen or heard something was about something to do with disposal of waste (including information about how it should be disposed and why). This was mentioned by 39%, including 39% in Christchurch and 40% in the rest of Canterbury.

One in five (20%) said that they remembered seeing or hearing information about recycling. Those outside Christchurch were more likely to have said this (27%) than those living in the city (16%).

#### **7.1.2 Understanding What Constitutes Household Hazardous Waste**

- Most people believed that they know which items form hazardous waste (39% agreed strongly and 42% agreed slightly).
- Some 37% spontaneously mentioned garden chemicals as being hazardous waste and a further 58% also mentioned these when prompted, giving an overall awareness figure of 95%.

A quarter (25%) mentioned solvents, or solvent-based products spontaneously and a similar amount spontaneously mentioned bleach (24%). When prompted, respondents were more likely to agree that solvents form hazardous waste (68%) than bleach (55%).

About a fifth (22%) spontaneously mentioned diesel or engine oil and a further 70% mentioned this when prompted.

Nearly a fifth (19%) spontaneously said that paint constitutes hazardous waste and a further 71% agreed that it does when prompted.

### 7.1.3 Knowledge of How to Dispose of Hazardous Waste

- Just under one in five respondents (18%) agreed strongly that they know how to dispose of household hazardous waste and a further 34% agreed slightly.
- About a quarter (27%) said that they pour bleach down the sink and a similar proportion (24%) believed that this is the correct way to dispose of it.
- About a quarter (23%) said that they put medicine out with the rubbish even though only 11% believed that this is the correct method of disposal.

Some 23% also said that they pour medicine down the sink and nearly as many (21%) claimed that this is the correct method of disposal.

Taking medicine to a pharmacy was most frequently given as the correct method of disposal (by 32%) and 19% claimed that this is actually how they dispose of medicine.

- Only about a quarter (24%) said that they take paint to the dump even though as many as 35% believed this to be the correct form of disposal.
- Only some 14% said that they take garden chemicals to the dump even though as many as 29% believed this to be the correct form of disposal.
- 13% said that they store solvents, although just 4% believed this to be the correct form of disposal.

Just one in ten (11%) said that they take solvents to the dump, although as many as a quarter (25%) considered this the correct method of disposal.

- Some 28% said that they take diesel or engine oil to a petrol station and 39% considered this to be the correct form of disposal.

15% claimed that they take diesel or engine oil to the dump, while 24% thought that this method is correct.

- Some 43% said that they take vehicle batteries to a petrol station and 48% considered this to be the correct form of disposal.

18% claimed that they take vehicle batteries to the dump, while 25% thought this method to be correct.

- Some 43% said that they put used hazardous product containers in the household rubbish even though just 18% thought this to be the correct form of disposal.

A quarter (24%) claimed that they take used hazardous product containers to the dump. 35% thought this method to be correct.

#### **7.1.4 Responsibility for Disposal of Hazardous Waste**

- Just 11% agreed strongly that people currently dispose of household hazardous waste responsibly and a further 20% agreed slightly with this.
- There was very strong agreement that the District or City Council should be responsible for provision of facilities for the disposal of hazardous waste (75% agreed strongly and 20% agreed slightly).
- There was also a high level of agreement that people should be responsible for their own hazardous waste (43% agreed strongly and 32% agreed slightly).
- Although most people thought households should be responsible for their hazardous waste, they were less likely to have said that they should pay for it (15% agreed strongly that they should and 31% agreed slightly).

#### **7.1.5 Perceived Availability of Services for Household Hazardous Waste Disposal**

- Just 13% agreed strongly and 21% slightly that there are adequate facilities available for the disposal of household hazardous waste.
- When asked about what facilities are currently available, two-thirds (67%) mentioned dropping it off at a transfer station and a third (33%) mentioned taking it to a petrol station.

Just under a quarter (24%) mentioned putting waste in the household rubbish and exactly one in ten said a hazardous waste drop off.

- Only 7% agreed strongly that there is enough information available about how to dispose of household hazardous waste and a further 12% agreed slightly.
- When asked whom they would ask for advice about disposing of household hazardous waste, three-quarters (76%) mentioned their Local Council.

Some 13% said that they would ask at the transfer station or dump and exactly one in ten said they would ask the Regional Council or a relative or friend.

### **7.1.6 Regional Variations**

Broadly speaking, there was little regional variation in most findings in terms of attitudes and understanding. Where this has occurred it is highlighted in the main body of the report

## **7.2 Agricultural Hazardous Waste**

### **7.2.1 Recall of Seeing or Hearing Something about Agricultural Hazardous Waste**

- Some 27% of agricultural workers said that they had seen or heard something about agricultural hazardous waste in the last year.
- Nearly half (48%) who had recalled something said they had seen it on television and a further 20% said they had seen it in a leaflet. Some 17% had read something in a newspaper and 12% had read something in a farming publication.
- Two-fifths (40%) of those who recalled some kind of communication said they had seen or heard something about disposal of waste. Just under a quarter (23%) said the communication had been about disposal of aerosols and 15% said it had been about polluting waterways.

### **7.2.2 Understanding What Constitutes Agricultural Hazardous Waste**

- Some 83% agreed (50% strongly and 33% slightly) that they know which items form agricultural hazardous waste.
- Some 83% spontaneously mentioned agricultural chemicals as an example of agricultural hazardous waste and a further 16% mentioned this when prompted. This means that, in total, 99% mentioned agricultural chemicals.

About a third mentioned agrichemical containers (35%) and used oil (32%) spontaneously. A further 59% mentioned agrichemical containers when prompted and a further 61% mentioned used oil when prompted.

Some 30% mentioned fuel spontaneously and a further 61% mentioned it when prompted.

Though total mentions of vehicle batteries were made by 97%, the majority were prompted (80%) and just 17% mentioned them spontaneously.

18% mentioned solvents or solvent based products spontaneously and 67% mentioned these when prompted.

### 7.2.3 Knowledge of How to Dispose of Agricultural Hazardous Waste

- A quarter (25%) of respondents agreed strongly that they know how to dispose of agricultural hazardous waste and a further 32% agreed slightly.
- One in five (20%) said that they simply use their agricultural chemicals up and 9% said that this is the correct form of disposal.

Just under one in ten (9%) said that they take them to the dump and 18% believed this to be the correct form of disposal.

Just 2% said that they return agricultural chemicals to the supplier, but 14% said that this would be the correct form of disposal.

Similarly, 2% said that they take them to a hazardous waste drop off, while 13% consider this to be the correct form of disposal.

- Nearly a quarter (23%) said that they burn used agricultural chemical containers and 12% said that this is the correct form of disposal. The same proportion (23%) said that they take them to the transfer station or dump and 29% believed this to be the correct form of disposal.

Just 2% said that they take them to a hazardous waste drop off, while 11% considered this to be the correct form of disposal.

About half (48%) of those who said they use agricultural chemicals said that they rinse the used containers three times and a similar proportion (49%) said that they do not.

Just over a third of those who rinse containers three times (36%) said that solution ends up being added to the rinsing solution to be applied, while more than half (52%) said that it is poured on the ground. 8% said that they pour it down a drain.

- Some 16% said that they use their solvents up and exactly the same proportion said that this is the correct form of disposal.

Just under one in ten (9%) said that they burn solvents and 8% believed this to be the correct form of disposal.

Some 9% said that they take solvents to the transfer station or dump, but 22% said that this would be the correct form of disposal.

- 45% said that they take batteries to a service station or to an oil igloo and 41% believed this to be the correct way to dispose of them.

Some 22% said that they take vehicle batteries to the transfer station or the dump and around the same proportion (24%) said that this is the correct form of disposal.

- A quarter (24%) said that they use their fuel up and 21% said that this is the correct form of disposal.

Just under one in ten (8%) said that they take fuel to the transfer station or dump and 13% believed this to be the correct form of disposal.

- 18% said that they recycle used oil while 23% said that they believed this to be correct.

About a quarter (24%) believed the correct way to dispose of used oil is to take it to a service station or oil igloo, though just 14% said that they do this.

13% said that they take oil to the transfer station or dump and 18% believed this to be the correct form of disposal.

Just over one in ten (11%) said that they burn oil, while 7% believed this to be correct.

#### **7.2.4 Responsibility for Disposal of Agricultural Hazardous Waste**

- Just over half (54%) believed people dispose of agricultural hazardous waste responsibly (24% agreed strongly and 30% agreed slightly).
- There was a high level of agreement that District Councils should be responsible for provision of facilities to dispose of agricultural hazardous waste. Two-thirds (67%) agreed with this strongly and 22% agreed with it slightly.
- Nearly half (48%) agreed that people should be responsible for their own agricultural hazardous waste strongly and 22% agreed slightly.
- There was less agreement that people should be responsible for paying for its disposal. Some 19% agreed strongly with this and 37% agreed slightly.

### **7.2.5 Perceived Availability of Services for Agricultural Hazardous Waste Disposal**

- Existing provision of facilities was felt to be adequate by just 27% (10% agreed strongly and 17% agreed slightly).
- When asked about current availability, just over half (54%) mentioned transfer stations or resource recovery parks and about one in five (22%) mentioned service stations and oil igloos.

One in ten said hazardous waste can be returned to the manufacturer (12%) and a similar proportion said it can be collected by hazardous waste disposal companies (10%).

Some 9% claimed no facilities were available locally.

- 27% agreed (10% strongly and 17% slightly) that there is enough information available about disposal of agricultural hazardous waste.

Nearly three quarters (74%) mentioned their Local Council as a source of advice and 29% said their Regional Council.

One in five (21%) said they could get advice from the company the product was bought from and one in ten (10%) mentioned commercial organisations generally.

## **7.3 Conclusions**

### **7.3.1 Household Hazardous Waste**

Recall of seeing or hearing about household hazardous waste varied widely by region, from as low as 8% in Waimate to as high as 25% in MacKenzie and messages recalled tended to be general.

There was some confusion over what constitutes household hazardous waste. Over a quarter could not make any suggestions as to what kinds of products might fall in to this category and, though many types of products achieved high prompted awareness, spontaneous mentions were much lower. The most frequently spontaneously mentioned product was garden chemicals (37%).

In terms of methods of disposal, many respondents admitted to disposing of products in ways that they believed to be incorrect. There was very little mention of recycling itself, though many people did mention taking products to a third party (e.g. vehicle batteries to a service station), presumably believing they would be recycled.

Though respondents generally believed that people should be responsible for their own household hazardous waste, there is a strong feeling that Councils do not provide sufficient facilities and, particularly, guidance to empower them to do this.

While believing people should be responsible for their own waste, this does not extend to financial responsibility for many.

### **7.3.2 Agricultural Hazardous Waste**

Recall of communications about agricultural waste among those working in agriculture (27%) is higher than recall of communications about household waste, although the message recalled again tended to be rather general.

There was a high level of spontaneous mentions of agricultural chemicals being hazardous waste, though mentions of other product types were much less common, unless prompted.

There was much inconsistency in terms of agricultural workers' knowledge of the correct ways to dispose of hazardous waste products. Again, many admitted to disposing of products in a way they believed to be incorrect. Fewer than half (48%) of those who use them said they rinse chemical containers three times after use. Furthermore, just over a third (36%) of those who rinse containers three times end up with the rinsing in the solution to be applied.

As with household waste, though many believe people should dispose of their own waste, they strongly believe the Council should provide facilities to enable them to do this. Feedback indicates that such facilities and information are not thought to be currently available.

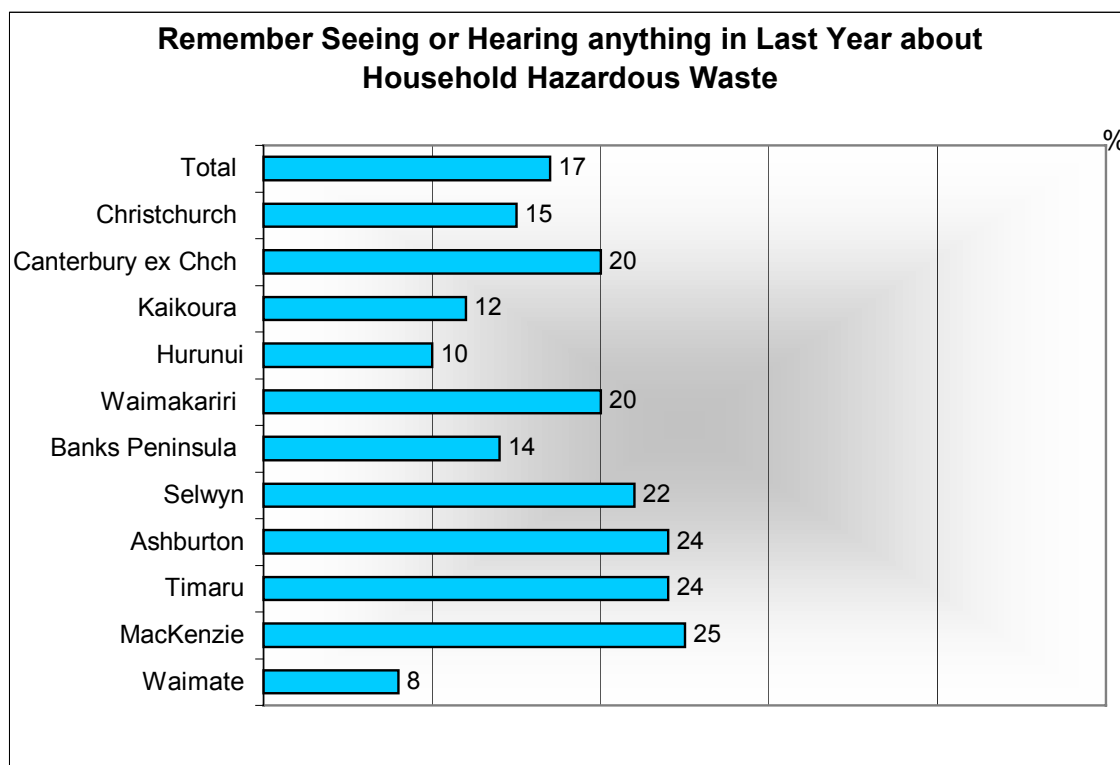
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Though workers in the agricultural sector were more inclined to agree that people should pay for the disposal of their own agricultural hazardous waste than was the case for household waste, there was still some resistance to this. Some 56% agreed to some extent that this is appropriate, but as many as 41% disagreed.

## 8. Household Hazardous Waste: Research Findings

### 8.1 Communication about Household Hazardous Waste

#### 8.1.1 Recall of Communication about Household Hazardous Waste



**Base: All in Canterbury (710)**

All respondents in Canterbury were asked if they recalled seeing or hearing anything in the last year about household hazardous waste.

Some 17% did recall seeing or hearing something, including 15% of those in Christchurch and 20% in the rest of Canterbury.

Recall was highest in Mackenzie (25%), Timaru (24%) and Ashburton (24%) and lowest in Waimate (8%) and Hurunui (10%).

Those subgroups most likely to recall something about household hazardous waste were:

- Aged 60-69 (23%) and aged 70 or over (30%).
- Older people with no dependent families (25%)
- Those not working/ retired (28%)
- People living in towns (24%).

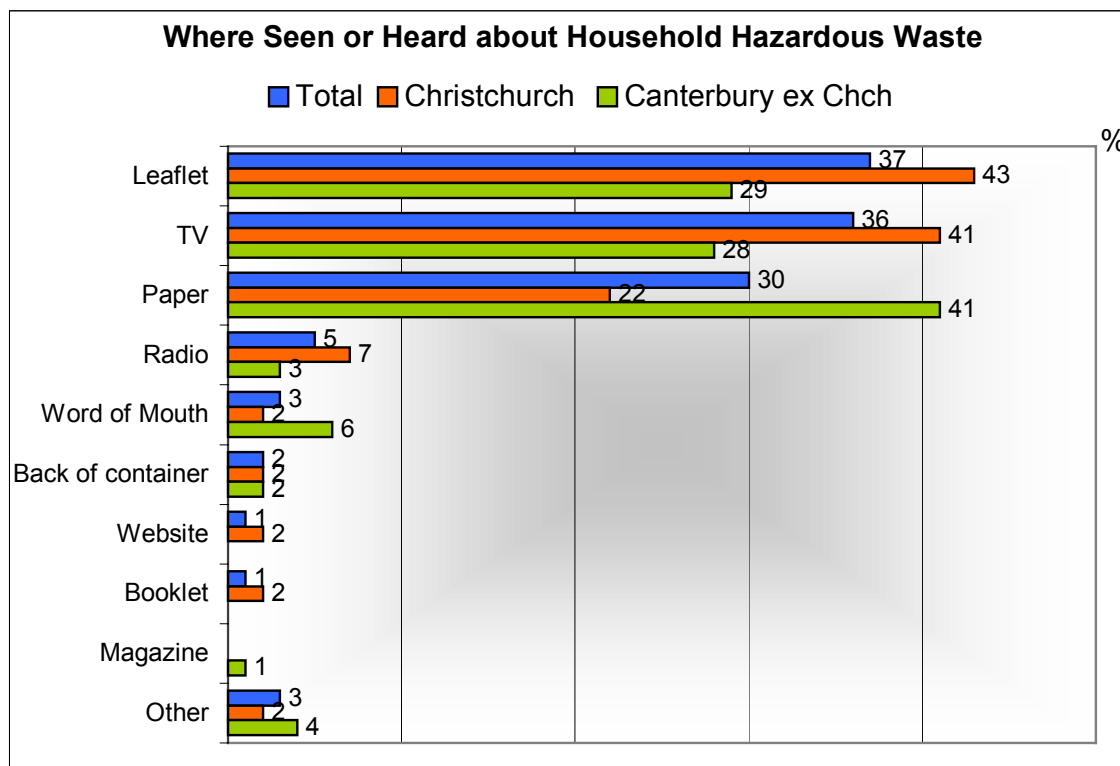
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Reflecting this, those least likely to recall something were:

- Aged 15-29 (7%)
- Skilled manual (8%) or semi or unskilled manual workers (12%)
- Tertiary students (11%)
- Non-ratepayers (8%).

In summary, the level of recall was strongly driven by higher levels of recall among older people.

### 8.1.2 Where Seen or Heard about Household Hazardous Waste



**Base: All seen or heard something (Christchurch 58, Canterbury 61)**

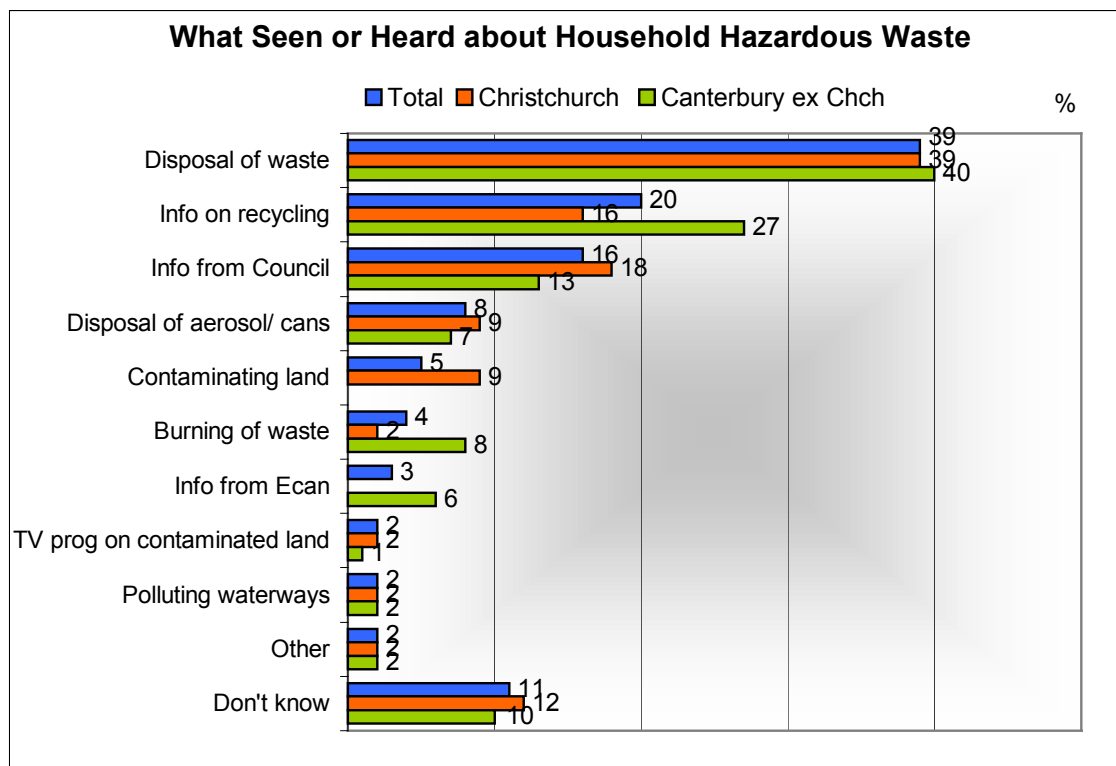
Respondents who recalled seeing or hearing something about hazardous waste were asked where they had seen it.

Overall the main sources were leaflets (37%) and television (36%). However, there was a marked difference between responses in Christchurch and in the rest of Canterbury.

Whereas in Christchurch leaflets (43%) and television (41%) were the main sources of recall, in the rest of Canterbury, newspapers were by far the most frequently mentioned source (41%).

Because this question was asked only of those who recalled something about household hazardous waste, the sample is not sufficient for more detailed analysis by region or by subgroup.

### 8.1.3 What Seen or Heard about Household Hazardous Waste



**Base: All seen or heard something (Christchurch 58, Canterbury 61)**

All who recalled seeing or hearing something about hazardous waste in the last year were asked what they remembered.

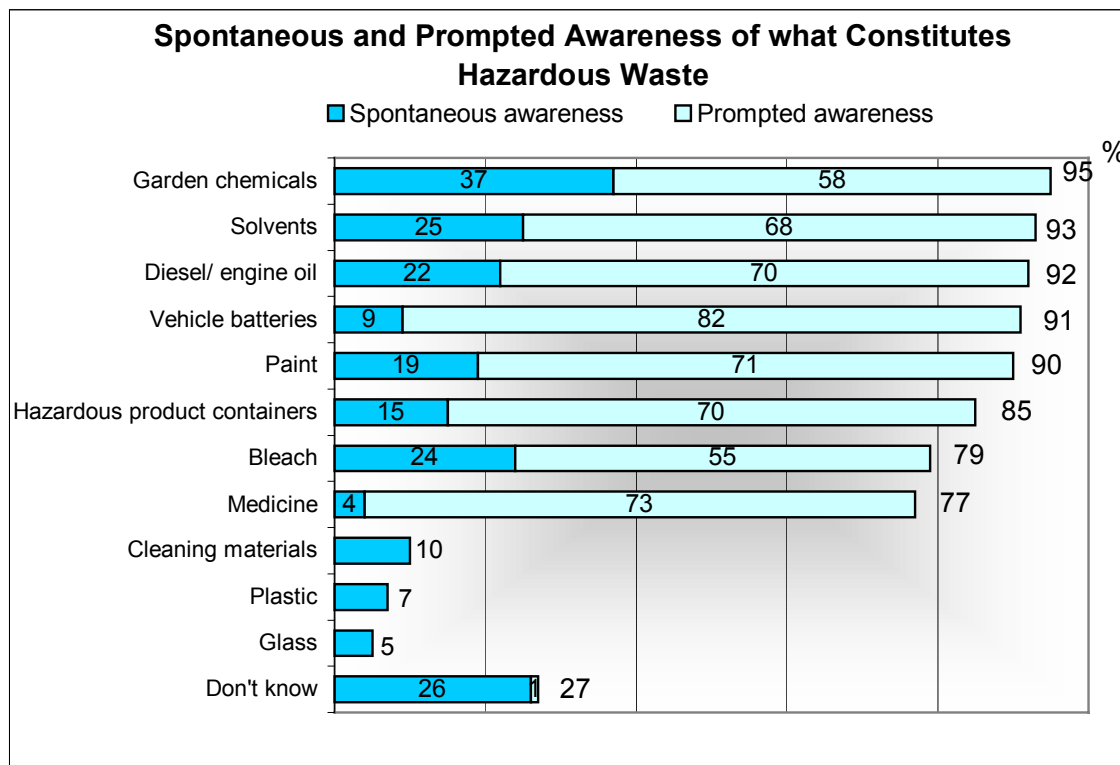
Overall, the main response was that respondents had seen something about disposal of waste (including information about how it should be disposed and why). This was mentioned by 39%, including 39% in Christchurch and 40% in the rest of Canterbury.

One in five (20%) said that they remembered seeing or hearing information about recycling. Those outside Christchurch were more likely to have said this (27%) than those living in the city (16%).

The only other response given by more than 10% was 'information from the Council', which was mentioned by 16%, including 18% in Christchurch and 13% in the rest of Canterbury.

## 8.2 Understanding of Household Hazardous Waste and Behaviour

### 8.2.1 Items that Form Household Hazardous Waste



**Base: All in Canterbury (710)**

Respondents were asked what they believed formed household hazardous waste. Initially, this was asked without prompting and then respondents were prompted with a number of items (if they had not already mentioned them) and asked whether they thought they constitute hazardous waste. The chart above shows spontaneous (or unprompted) awareness and also prompted awareness. The sum of the two forms a figure for total awareness.

Note that 'cleaning materials', 'plastic' and 'glass' were not prompted and so only spontaneous awareness figures are shown.

The main spontaneous response was garden chemicals (37%) and a further 58% also mentioned this when prompted with it, giving an overall awareness figure of 95%.

A quarter (25%) mentioned solvents, or solvent-based products spontaneously and a similar amount spontaneously mentioned bleach (24%). When prompted, respondents were more likely to agree that solvents form hazardous waste (68%) than bleach (55%).

About a fifth (22%) spontaneously mentioned diesel or engine oil and a further 70% mentioned this when prompted.

Nearly a fifth (19%) spontaneously said that paint constitutes hazardous waste and a further 71% agreed that it does when prompted with it.

Hazardous product containers were mentioned spontaneously by 15% and when prompted by 70%.

About one in ten mentioned each of cleaning products (10%) and vehicle batteries (9%) spontaneously. Cleaning products were not prompted, but 82% said that vehicle batteries form hazardous waste when they were prompted.

Plastic (7%), glass (5%) and medicine (4%) were each mentioned spontaneously by about one in twenty respondents and a further 73% mentioned medicine when prompted (plastic and glass were not prompted).

**Table 1: Total Awareness of what forms Household Hazardous Waste, by Region (%)**

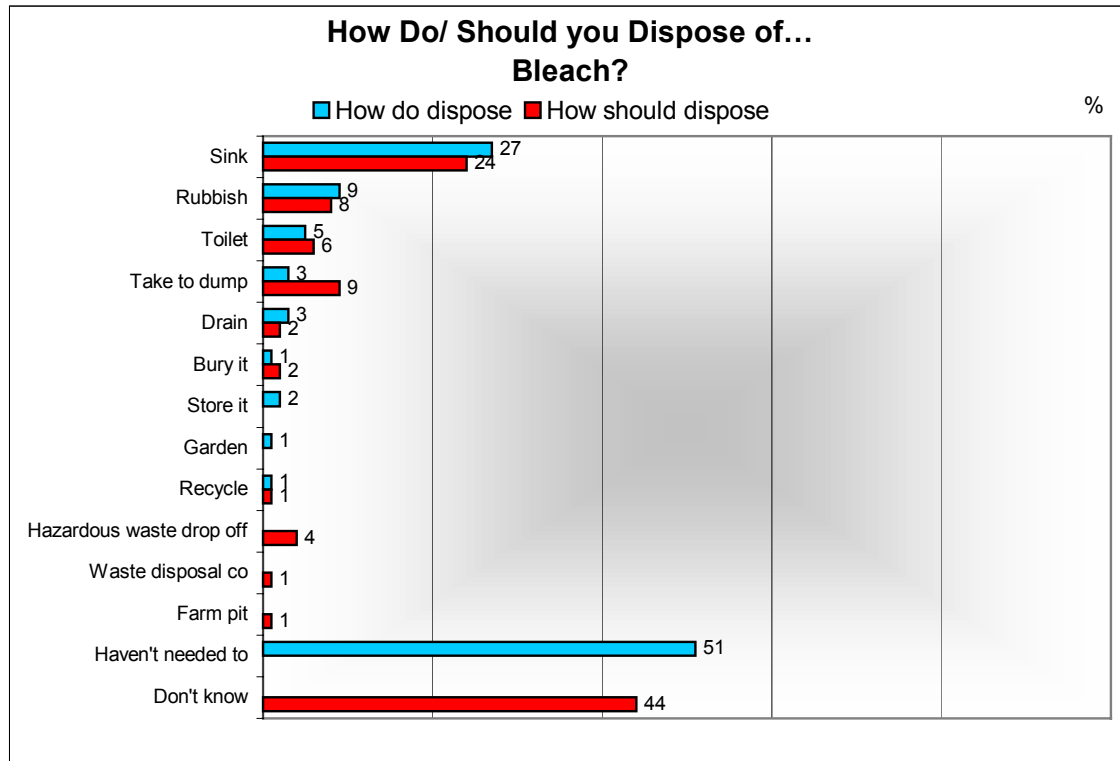
	Christ-church	Cant (ex Chch)	Kaik-oura	Huru-nui	Wiamakariri	Banks Peninsula	Selwyn	Ash-burton	Tim-aru	Mack-enzie	Waim-ate
Bleach	77	82	80	76	90	90	84	76	81	71	68
Medicine	73	84	76	81	82	90	84	84	85	96	84
Paint	90	90	80	90	96	95	89	92	87	83	96
Garden chemical	95	95	96	95	92	100	92	100	93	96	100
Solvent	93	94	88	95	96	90	92	95	94	96	84
Diesel/ oil	92	93	84	95	94	86	95	97	91	96	100
Vehicle batteries	89	95	92	95	94	90	95	100	93	100	96
Hazard product containers	84	88	84	90	94	81	95	95	79	79	84
Plastic*	5	11	28	19	10	14	16	11	7	-	8
Cleaning materials*	8	12	-	10	8	24	14	19	12	-	24
Glass*	5	6	8	19	8	5	8	3	4	4	4
Don't know	29	21	24	19	24	24	8	27	22	29	16

\*Spontaneous awareness only

Responses were broadly similar across regions. Residents in Selwyn were less likely to say 'don't know' than those in other areas.

## 8.2.2 Disposal of Household Hazardous Waste

### 8.2.2.1 Bleach



**Base: All in Canterbury (710)**

Respondents were asked firstly how they actually disposed of bleach and secondly how they thought it should be disposed of.

About a quarter (27%) said that they pour bleach down the sink and a similar proportion (24%) believed that this is the correct way to dispose of it.

All other responses were given by fewer than one in ten including 9% who claimed to put bleach in the rubbish for collection. About the same proportion (8%) said that this is the correct way to dispose of bleach.

Most response levels for how bleach is actually disposed of matched those for how respondents believed it should be disposed of, with the exception of taking bleach to the dump. Just 3% said they do this, whereas 9% thought it is the correct method of disposal.

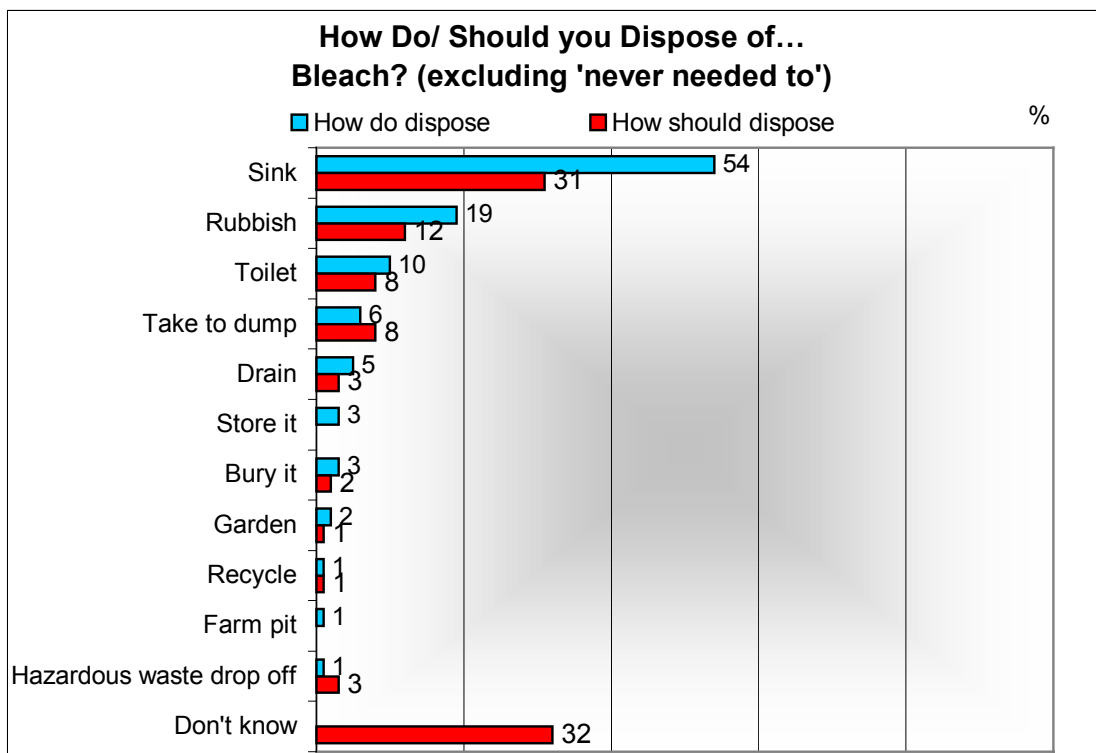
Some 44% said that they did not know the correct way to dispose of bleach.

Just over half (51%) claimed that they had not needed to dispose of bleach.

Those most likely to say they disposed of bleach by pouring it down the sink were:

- Women (32%)
- Aged 30-39 (35%)
- Living in Christchurch (32%) and MacKenzie (46%).

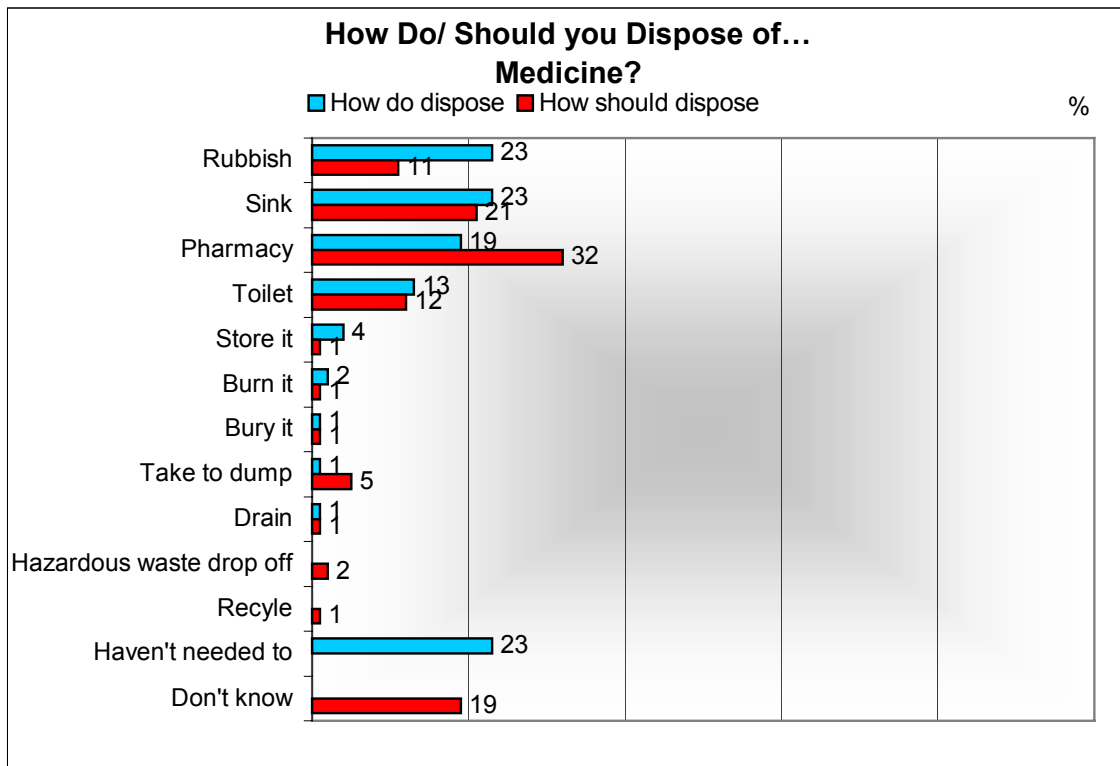
The chart below shows findings excluding those who have never had to dispose of bleach.



**Base: All who have disposed of bleach (345)**

Among those who have ever had to dispose of bleach, some 54% said that they pour it down the sink. The proportions that mentioned each method of disposal quite closely matched the ways in which people thought it should be disposed of.

### 8.2.2.2 Medicine



Base: All in Canterbury (710)

Respondents were asked how they actually disposed of medicine and also how they thought it should be disposed of.

About a quarter (23%) said that they put medicine out with the rubbish even though only 11% believed that this is the correct method of disposal.

Some 23% also said that they pour medicine down the sink and nearly as many (21%) claimed that this is the correct method of disposal.

Taking medicine to a pharmacy was most frequently given as the correct method of disposal (by 32%) and 19% claimed that this is actually how they dispose of medicine.

Some 13% said that they dispose of medicine by putting it down the toilet and nearly as many (12%) believed this to be the correct way to dispose of it.

All other responses were given by fewer than one in ten.

Some 19% said that they did not know the correct way to dispose of medicine and 23% claimed that they had not needed to dispose of it.

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Those most likely to say they dispose of medicine by taking it to the pharmacy were:

- Aged 60-69 (38%).

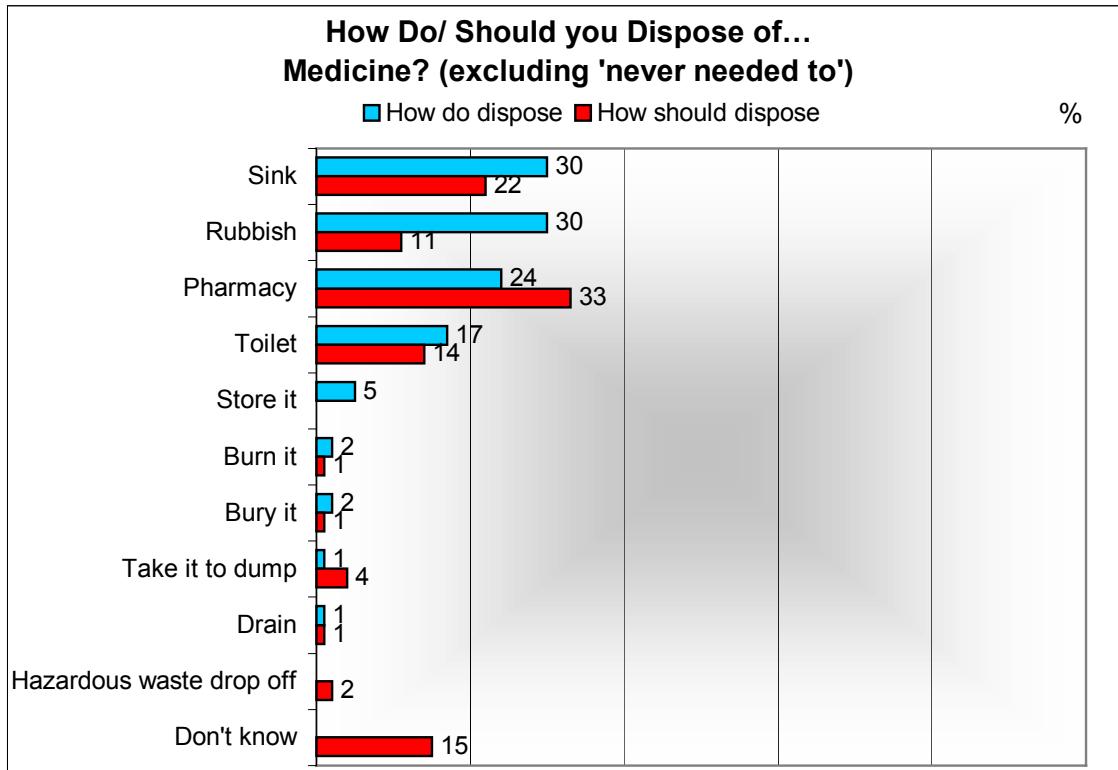
Those most likely to say they dispose of medicine by putting it in the rubbish were:

- Aged 15-29 (31%)
- Young people with no dependent family (32%)
- Semi or unskilled manual workers (33%)
- School students (38%)
- Living in Christchurch (27% versus 15% in rest of Canterbury).

Those most likely to say they dispose of medicine by putting it in the sink were:

- Aged 60-69 (30%)
- Tertiary students (31%)
- Living in Kaikoura (36%) and Banks Peninsula (38%).

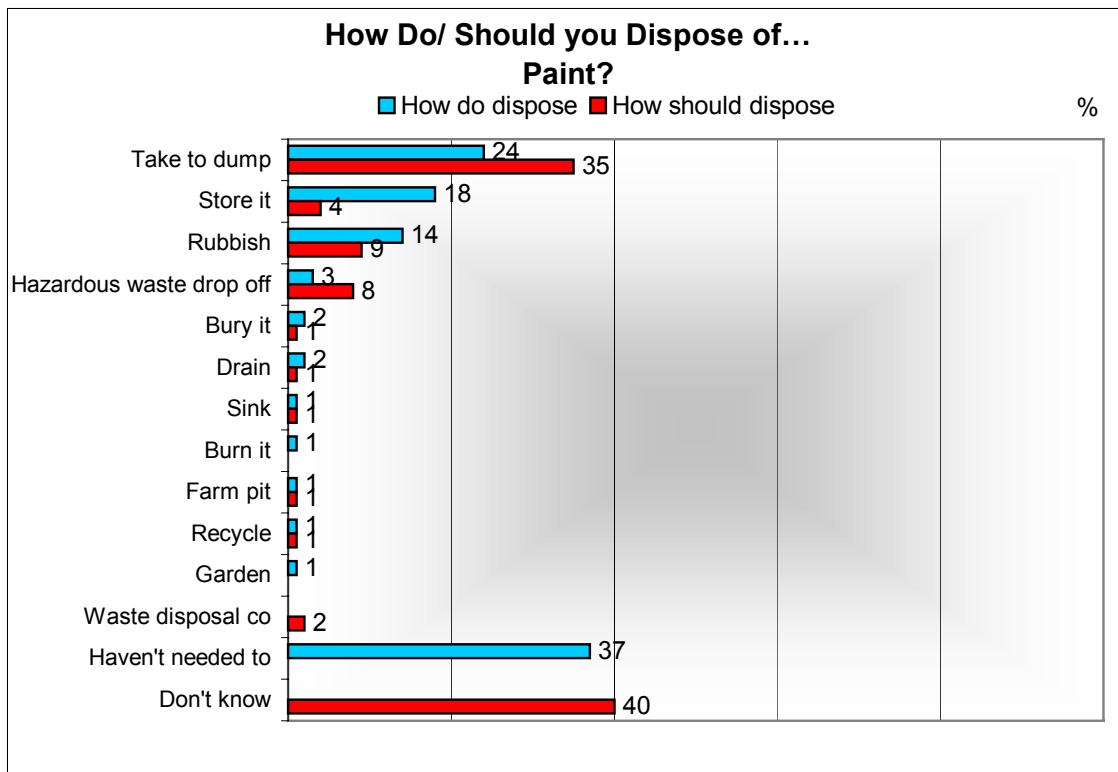
The chart below shows findings excluding those who have never had to dispose of medicine.



**Base: All who have disposed of medicine (554)**

Among those who have ever had to dispose of medicine, some 30% said that they pour it down the sink. When results are analysed in this way, the disparity between those who said they put medicine in the rubbish and the proportion that thought this to be the correct method of disposal was still evident.

### 8.2.2.3 Paint



**Base: All in Canterbury (710)**

Respondents were asked how they actually disposed of paint and also how they thought it should be disposed of.

About a quarter (24%) said that they take paint to the dump even though as many as 35% believed this to be the correct form of disposal.

Some 18% said that they store paint though only 4% thought this to be the correct method of disposal.

While fewer than one in ten (9%) thought it correct to put paint in the household rubbish, as many as 14% said that they do so.

All other responses were given by fewer than one in ten.

Some 40% said that they did not know the correct way to dispose of paint and 37% claimed that they had not needed to dispose of it.

Those most likely to say they dispose of paint by taking it to the dump were:

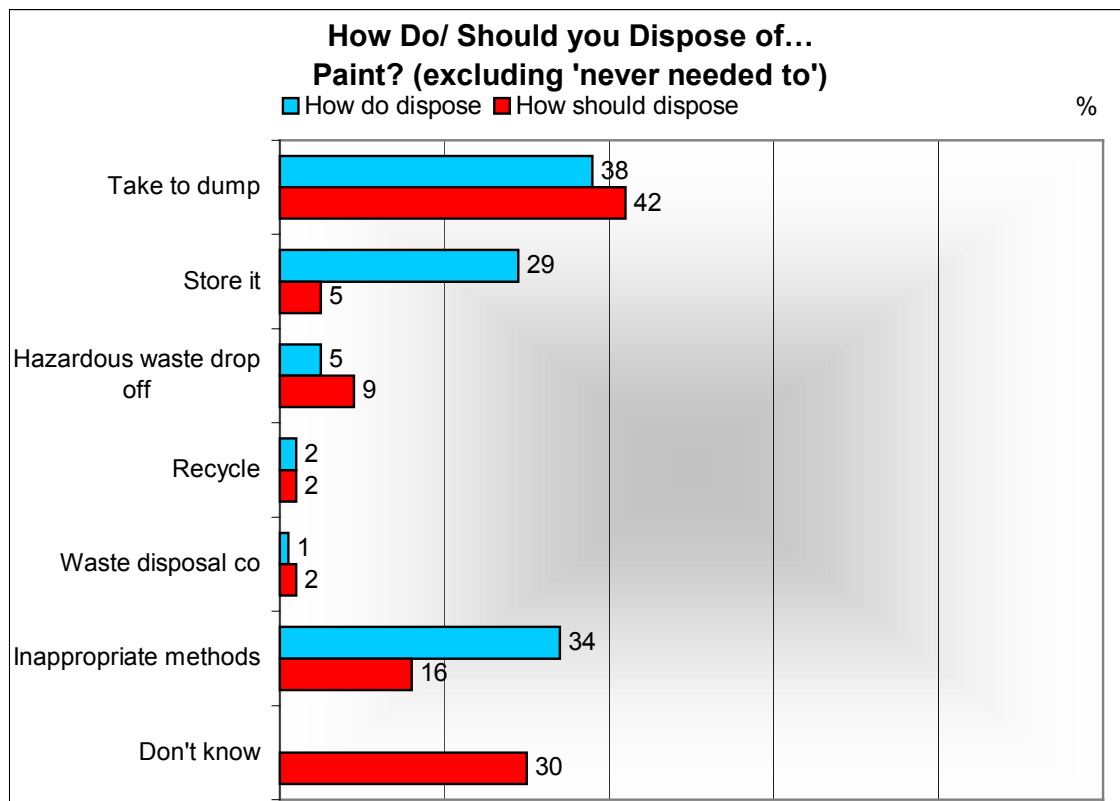
- Living in Christchurch (28% versus 17% in the rest of Canterbury)

Those most likely to say they dispose of paint by storing it were:

- Tertiary students (26%)
- Living in Hurunui (48%) or Kaikoura (44%).

There was very little difference between subgroups in terms of those who said they dispose of paint by putting it in the rubbish.

The chart below shows findings excluding those who have never had to dispose of paint. It also groups together all forms of disposal that are not appropriate ways of disposing of this kind of hazardous waste.

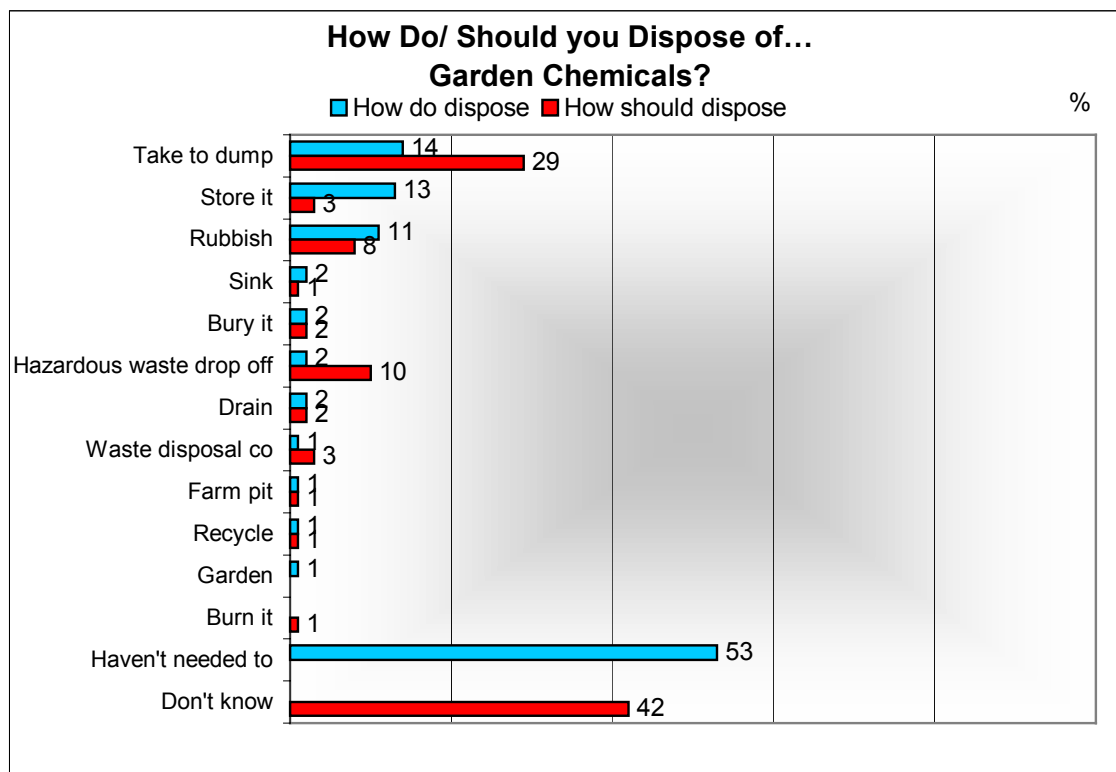


**Base: All who have disposed of paint (446)**

Some 34% said that they dispose of paint in at least one of the ways that is deemed inappropriate, while just 16% thought these methods to be correct.

Some 30% of those who have disposed of paint said that they did not know how to do so correctly.

### 8.2.2.4 Garden Chemicals



**Base: All in Canterbury (710)**

Respondents were asked how they actually disposed of garden chemicals and also how they thought they should be disposed of.

Some 14% said that they take garden chemicals to the dump even though as many as 29% believed this to be the correct form of disposal.

13% said that they store garden chemicals, compared with 3% who thought this the correct method of disposal.

Just over one in ten (11%) said they put garden chemicals in the household rubbish and nearly as many (8%) believed this to be the correct method of disposal.

All other responses were given by fewer than one in ten, except that exactly one in ten said that garden chemicals should be taken to a hazardous waste drop off even though only 2% claimed to actually do this.

Some 42% said that they did not know the correct way to dispose of garden chemicals and 53% claimed that they had not needed to dispose of them.

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Those most likely to say they dispose of garden chemicals by taking them to the dump were:

- Living in Kaikoura (24%).

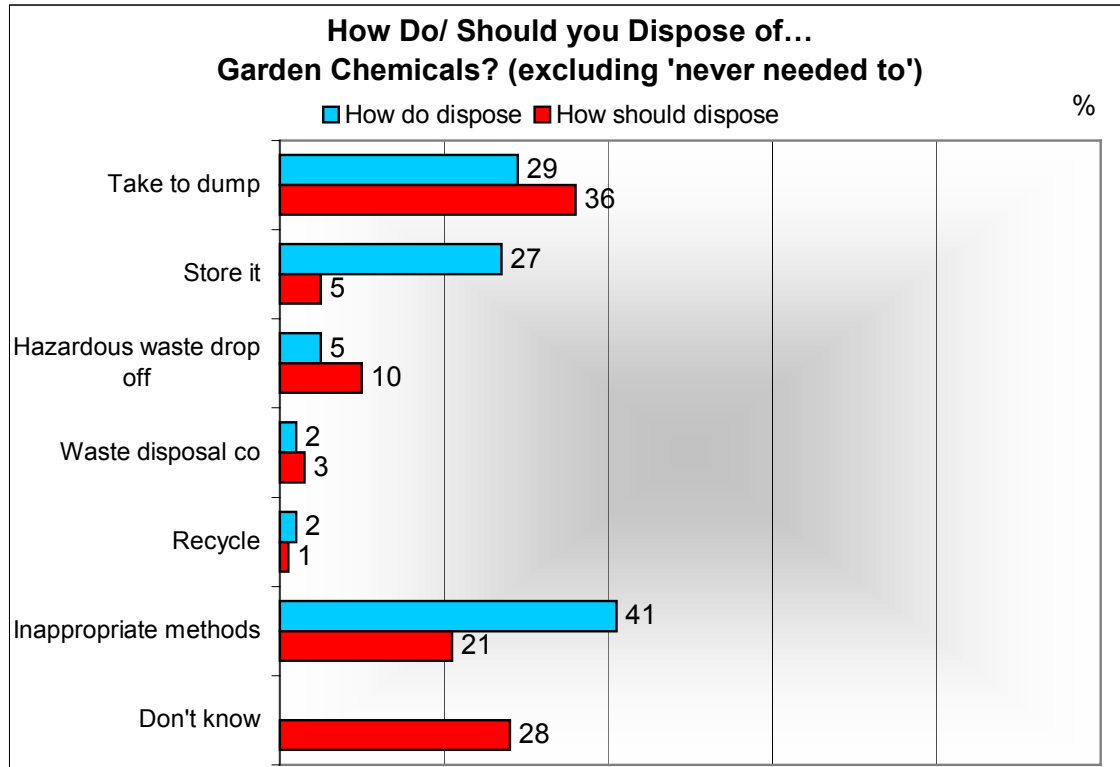
Those most likely to say they dispose of garden chemicals by storing them were:

- Tertiary students (20%)
- Living in Waimakariri (20%).

Those most likely to say they dispose of garden chemicals by putting them in the rubbish were:

- Living in Timaru (18%).

The chart below shows findings excluding those who have never had to dispose of garden chemicals. It also groups together all forms of disposal that are not appropriate ways of disposing of this kind of hazardous waste.

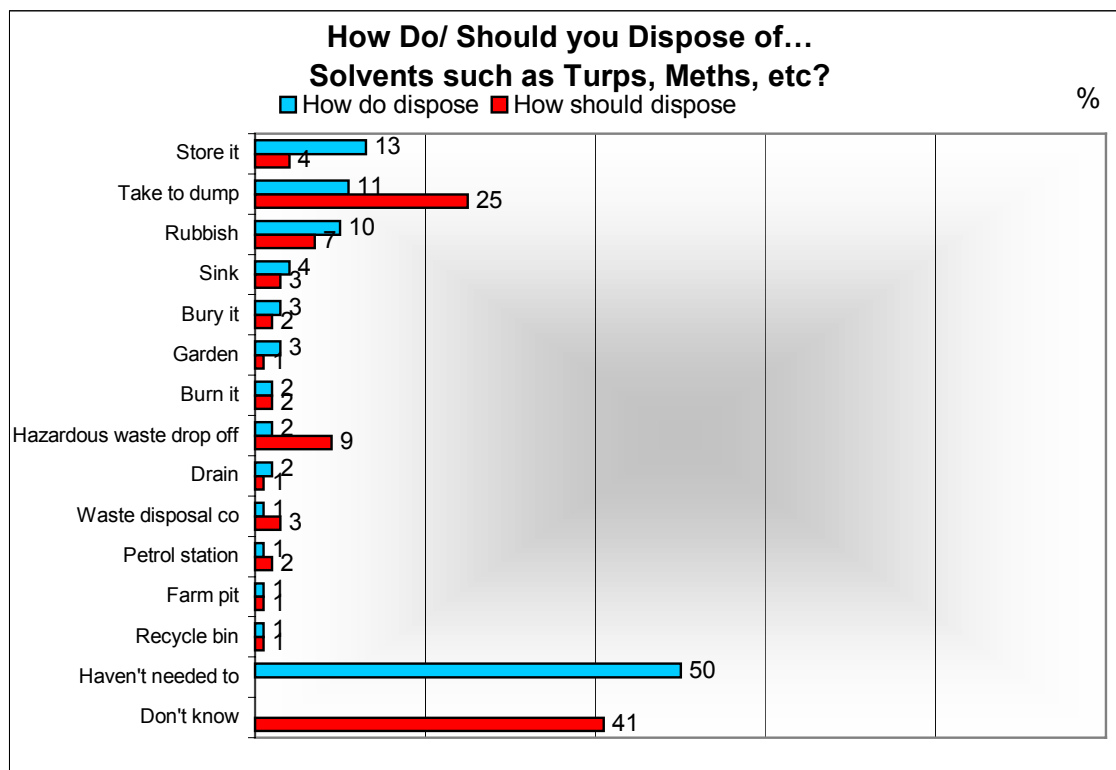


**Base: All who have disposed of garden chemicals (329)**

Two-fifths (41%) of those who have ever disposed of garden chemicals have done so in inappropriate ways and some 21% believed one of these inappropriate methods to be the correct way to dispose of them.

Over a quarter (28%) of those who have had to dispose of garden chemicals said they did not know the correct way to do so.

### 8.2.2.5 Solvents (Turps, Meths, etc)



Base: All in Canterbury (710)

Respondents were asked how they actually disposed of solvents and also how they thought they should be disposed of.

Some 13% said that they store solvents, although just 4% believed this to be the correct form of disposal.

Just one in ten (11%) said that they take solvents to the dump, although as many as a quarter (25%) considered this the correct method of disposal.

Exactly one in ten (10%) said that they put solvents in the household rubbish. 7% thought this to be correct.

All other responses were given by fewer than one in ten.

Some 41% said that they did not know the correct way to dispose of solvents and 50% claimed that they had not needed to dispose of them.

Those most likely to say they dispose of solvents by storing them were:

- Living in Waimakariri (24%).

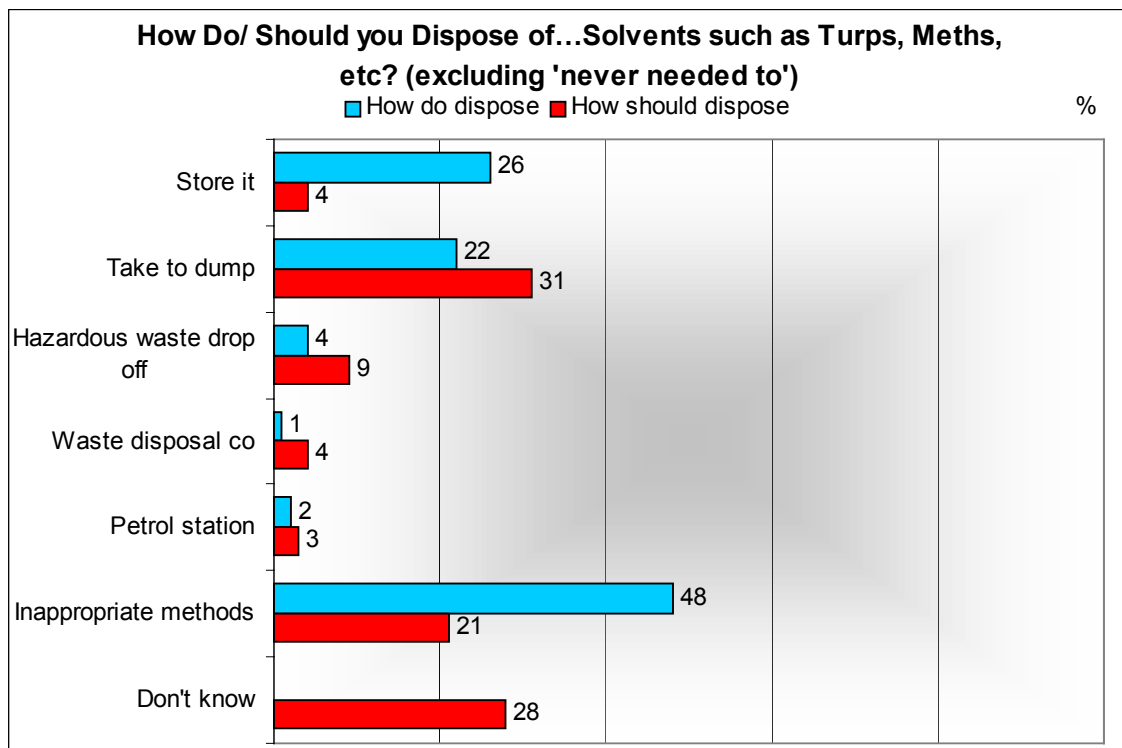
Those most likely to say they dispose of solvents by taking them to the dump were:

- Living in Kaikoura (40%).

Those most likely to say they dispose of solvents by putting them in the rubbish were:

- Living in Timaru (15%).

The chart below shows findings excluding those who have never had to dispose of solvents. It also groups together all forms of disposal that are not appropriate ways of disposing this kind of hazardous waste.

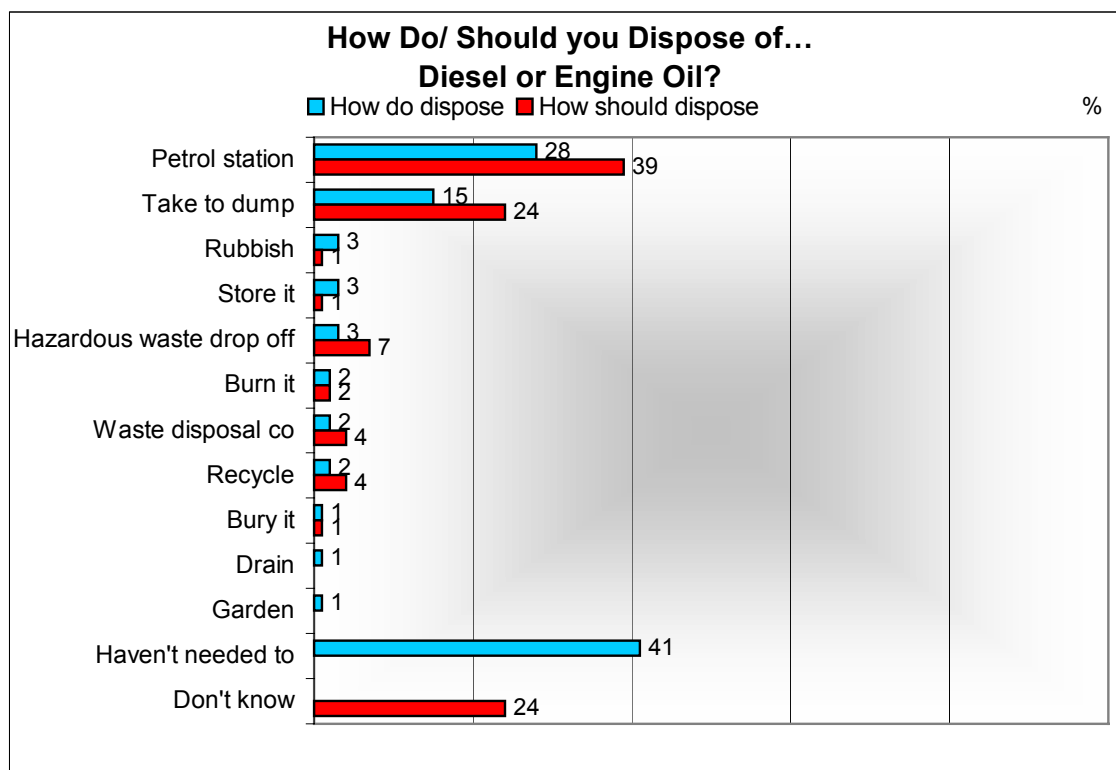


**Base: All who have disposed of solvents (353)**

Nearly half (48%) of those who have had to dispose of solvents have done so in inappropriate ways.

A fifth (21%) believed an inappropriate method to be correct and a further 28% said they did not know how to dispose of solvents.

### 8.2.2.6 Diesel or Used Engine Oil



**Base: All in Canterbury (710)**

Respondents were asked how they actually disposed of diesel or engine oil and also how they thought it should be disposed of.

Some 28% said that they take diesel or engine oil to a petrol station and 39% considered this to be the correct form of disposal.

15% claimed that they take diesel or engine oil to the dump, while 24% thought that this method is correct.

All other responses were given by fewer than one in ten.

Some 41% said that they did not know the correct way to dispose of diesel or engine oil and 24% claimed that they had not needed to dispose of it.

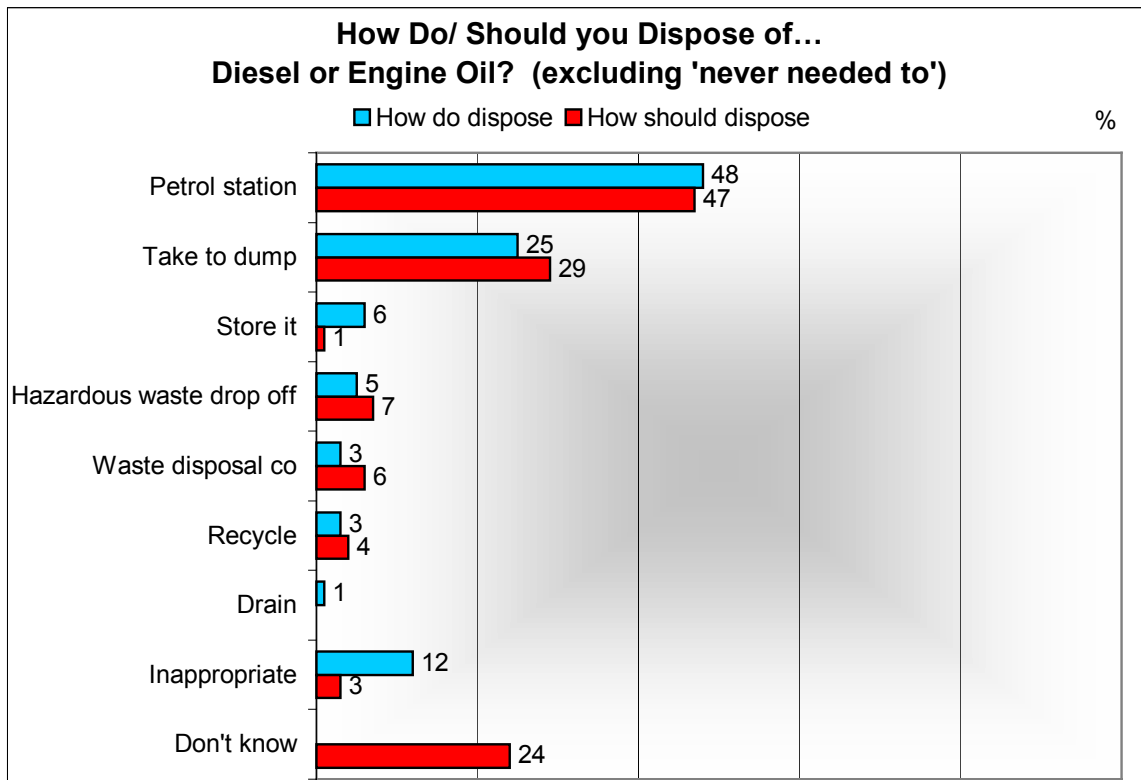
Those most likely to say they dispose of diesel or engine oil by taking it to a petrol station were:

- Aged 60-69 (37%)
- Living in Banks Peninsula (43%).

Those most likely to say they dispose of diesel or engine oil by taking it to the dump were:

- Living in Kaikoura (24%).

The chart below shows findings excluding those who have never had to dispose of diesel or engine oil. It also groups together all forms of disposal that are not appropriate ways of disposing this kind of hazardous waste.

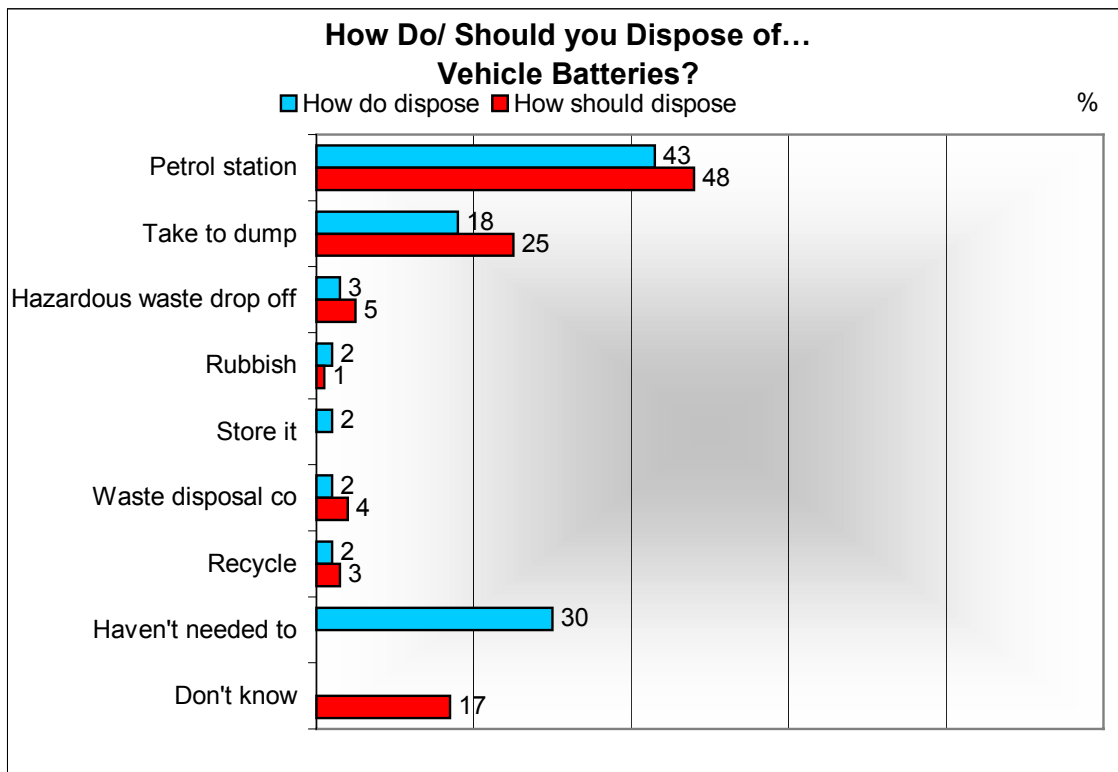


**Base: All who have disposed of diesel or engine oil (422)**

Some 88% of those who have ever had to dispose of diesel or engine oil have done so in ways that are, or may be, appropriate.

Only 3% suggested inappropriate methods as the correct way to dispose of diesel or engine oil, though a further 24% said they did not know the correct way.

### 8.2.2.7 Vehicle Batteries



**Base: All in Canterbury (710)**

Respondents were asked how they actually disposed of vehicle batteries and also how they thought they should be disposed of.

Some 43% said that they take vehicle batteries to a petrol station and 48% considered this to be the correct form of disposal.

Some 18% claimed that they take vehicle batteries to the dump, while 25% thought this method to be correct.

All other responses were given by fewer than one in ten.

Some 17% said that they did not know the correct way to dispose of vehicle batteries and 30% claimed that they had not needed to dispose of them.

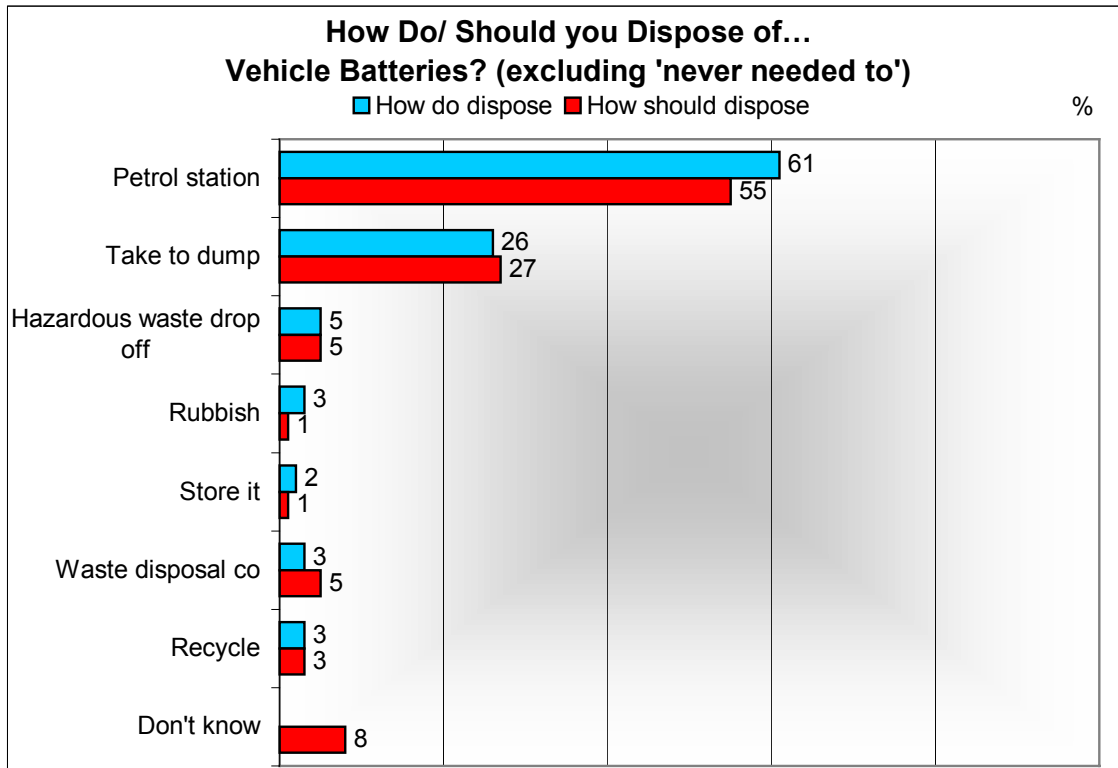
Those most likely to say they dispose of vehicle batteries by taking them to a petrol station were:

- Aged 60 or over (54%)
- Professional/ managerial/ clerical workers (51%)
- Living in Waimate (52%).

Those most likely to say they dispose of vehicle batteries by taking them to the dump were:

- Living in Kaikoura (36%).

The chart below shows findings excluding those who have never had to dispose of vehicle batteries.

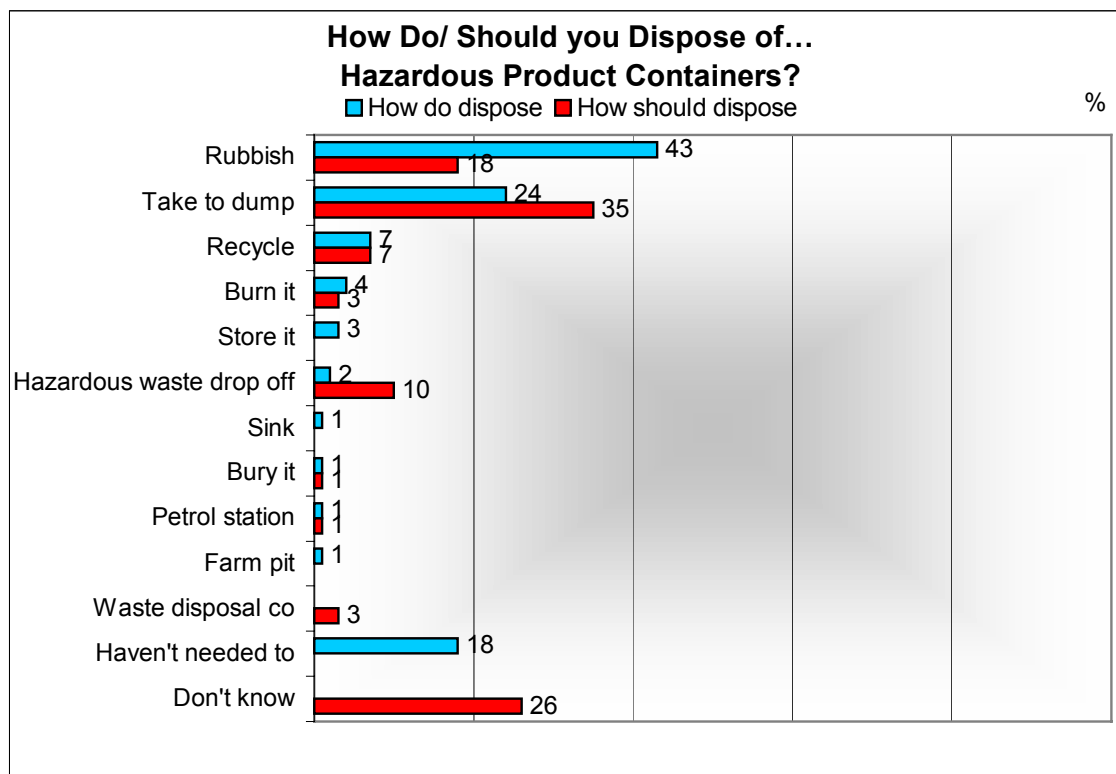


**Base: All who have disposed of vehicle batteries (506)**

The majority of respondents who have ever disposed of vehicle batteries (61%) claimed to do so by taking them to a petrol or service station. Nearly as many (55%) claimed this to be the correct way to dispose of them.

Most of those who had ever disposed of batteries claimed to do so in ways that would be considered appropriate, though 3% said that they put them in the household rubbish.

### 8.2.2.8 Used Hazardous Product Containers



Base: All in Canterbury (710)

Respondents were asked how they actually disposed of used hazardous product containers and also how they thought they should be disposed of.

Some 43% said that they put used containers in the household rubbish even though just 18% thought this to be the correct form of disposal.

A quarter (24%) claimed that they take used hazardous product containers to the dump. 35% thought this method to be correct.

All other responses were given by fewer than one in ten.

Some 26% said that they did not know the correct way to dispose of used containers and 18% claimed that they had not needed to dispose of them.

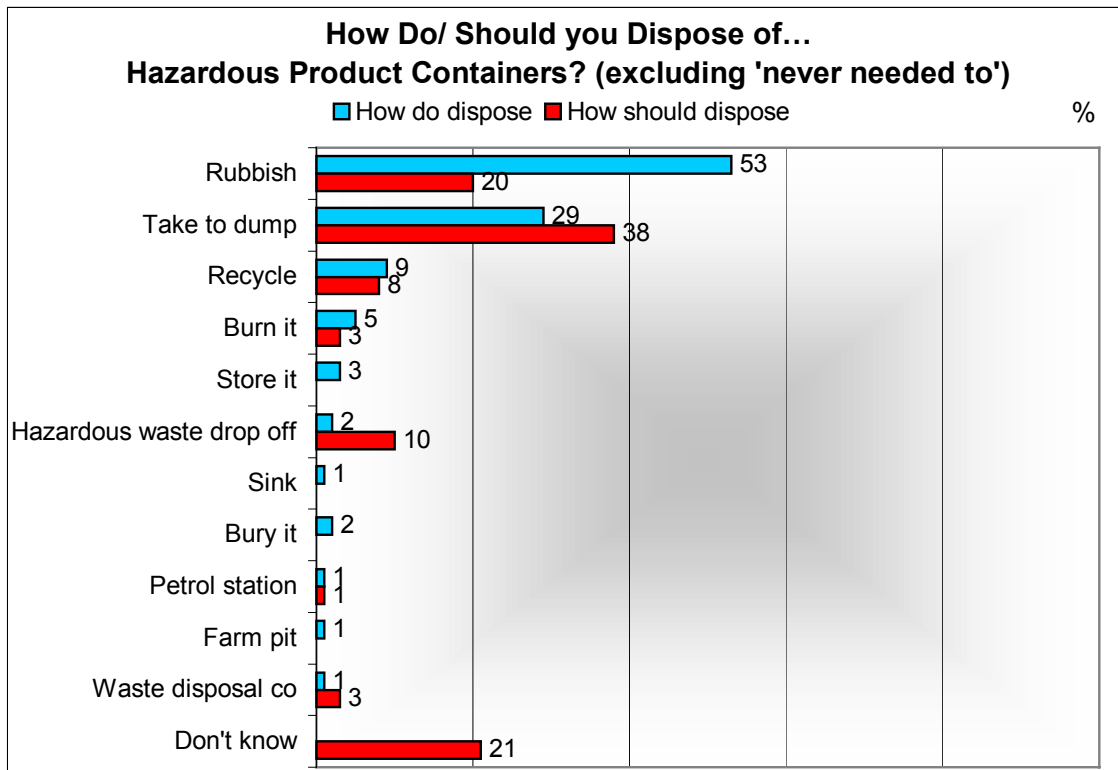
Those most likely to say they dispose of used hazardous product containers by putting them in the rubbish were:

- Aged 20-25 (58%).

Those most likely to say they dispose of used containers by taking them to the dump were:

- Living in Kaikoura (56%).

The chart below shows findings excluding those who have never had to dispose of hazardous product containers.

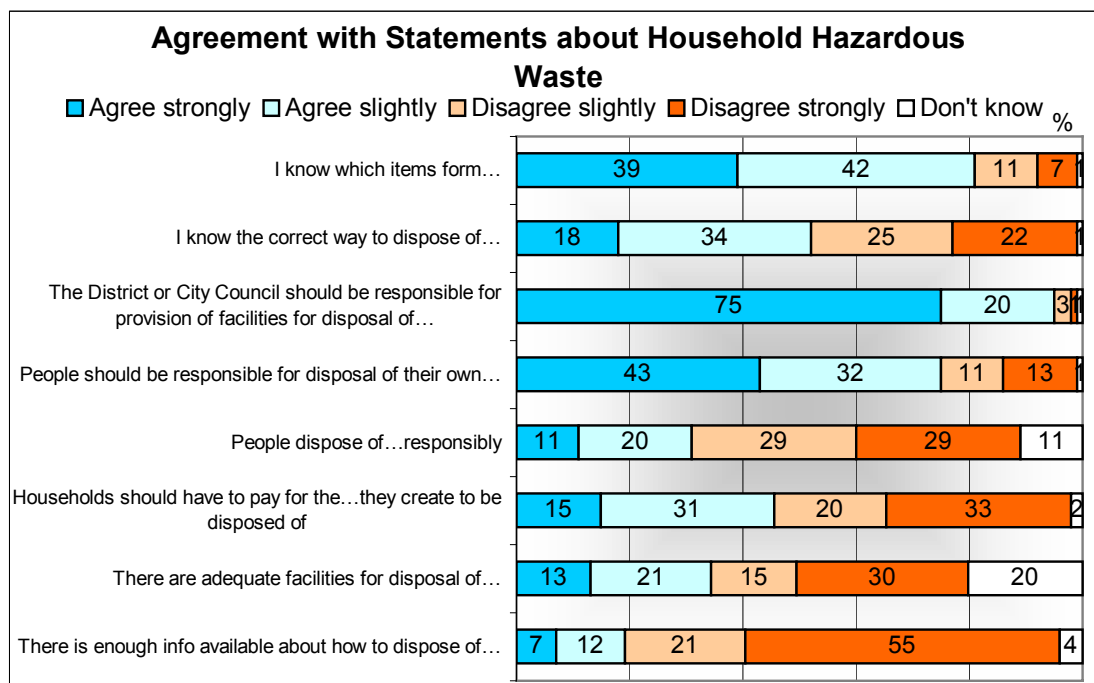


**Base: All who have disposed of hazardous product containers (579)**

Among those who said that they have disposed of these containers, more than half (53%) said that they put them in the rubbish.

Some 38% of those who have ever disposed of them thought that the best way to dispose of hazardous waste containers is to take them to the dump, but more than a fifth (21%) said they did not know how to dispose of them.

### 8.2.3 Agreement with Statements about Household Hazardous Waste



**Base: All in Canterbury (710)**

Respondents were asked to what extent they agreed with a number of statements about household hazardous waste.

The above chart shows the levels of agreement with each of the statements.

Agreement was strongest that the District or City Council should be responsible for the disposal of hazardous waste (75% agreed strongly and 20% agreed slightly). However, there was also a high level of agreement that people should be responsible for their own hazardous waste (43% agreed strongly and 32% agreed slightly).

Although most people thought households should be responsible for their hazardous waste, they were less likely to have said that they should pay for it (15% agreed strongly that they should and 31% agreed slightly).

Most people believe that they know which items form hazardous waste (39% agreed strongly and 42% agreed slightly), although they are less sure about how to dispose of them (18% agreed strongly that they know this and 34% agreed slightly).

The majority had a negative view of the public's current habits in terms of hazardous waste disposal. Just 11% agreed strongly that people dispose of household hazardous waste responsibly and a further 20% agreed slightly with this.

A key reason behind the negative view of current disposal behaviour may be the perceived lack of facilities available for this. Just 13% agreed strongly and 21% slightly that there are adequate facilities available for the disposal of household hazardous waste. Furthermore, only 7% agreed strongly that there is enough information available about how to dispose of household hazardous waste and a further 12% agreed slightly.

Provision of facilities and information has been examined in more detail in section 8.3 of this report.

## 8.2.4 Agreement with Statements about Household Hazardous Waste by Region

**Table 2: Agreement with Statements about Household Hazardous Waste (Mean score out of 4)**

	Christchurch	Cant (ex Chch)	Kaikoura	Hurunui	Wiamakariri	Banks Peninsula	Selwyn	Ashburton	Timaru	Mackenzie	Waimate
I know which items form...	3.14	3.10	2.88	3.05	3.16	3.52	3.27	2.97	3.02	3.08	3.08
I know the correct way to dispose of...	2.50	2.47	2.80	2.43	2.63	2.43	2.57	2.35	2.42	2.58	1.96
The Council should provide facilities for disposal of...	3.69	3.69	3.40	3.48	3.75	3.57	3.53	3.70	3.81	3.75	3.84
People should be responsible for disposal of their own...	3.12	2.92	3.00	3.05	3.16	3.38	2.97	2.56	2.91	2.38	2.37
People dispose of... responsibly	2.14	2.17	2.60	2.24	2.00	1.79	1.97	2.42	2.29	2.30	2.04
Households should have to pay for the ...they create	2.25	2.33	2.16	2.35	2.38	2.24	2.70	2.19	2.24	2.35	2.25
There are adequate facilities for disposal of...	2.34	1.98	2.90	1.87	2.35	1.80	1.97	2.00	1.75	1.96	1.73
There is enough info available about how to dispose of...	1.68	1.73	2.24	1.65	1.84	1.67	1.94	1.67	1.51	1.88	1.52

**Base: All in Canterbury (710)**

The table above shows the level of agreement with each statement in each region through the use of mean scores out of 4, where 4 = agree strongly and 1 = disagree strongly.

Though responses were broadly similar across regions, a number of variations are highlighted below.

### **Christchurch:**

- More likely to believe people should be responsible for their own hazardous waste
- More likely to believe that there are adequate facilities for disposal.

**Kaikoura:**

- Less likely to know which items form hazardous waste
- More likely to claim to know how to dispose of it
- More likely to believe people dispose of hazardous waste responsibly
- Less likely to think households should pay for disposal
- More likely to believe there are adequate facilities available.

**Hurunui:**

- Less likely to believe adequate facilities are available.

**Waimakariri:**

- More likely to believe people should be responsible for their own hazardous waste
- More likely to believe that there are adequate facilities for disposal.

**Banks Peninsula:**

- More likely to claim to know which items form hazardous waste
- More likely to believe people should be responsible for disposal of their hazardous waste
- Less likely to think people currently dispose of waste responsibly
- Less likely to think there are adequate facilities available.

**Selwyn:**

- Less likely to think people dispose of hazardous waste responsibly
- More likely to think households should pay to dispose of their waste.

**Ashburton:**

- Less likely to think people should be responsible for disposal of their waste.

**Timaru:**

- More likely to believe the Council should be responsible for disposal
- Less likely to believe there are adequate facilities for disposal
- Less likely to think there is enough information.

**MacKenzie:**

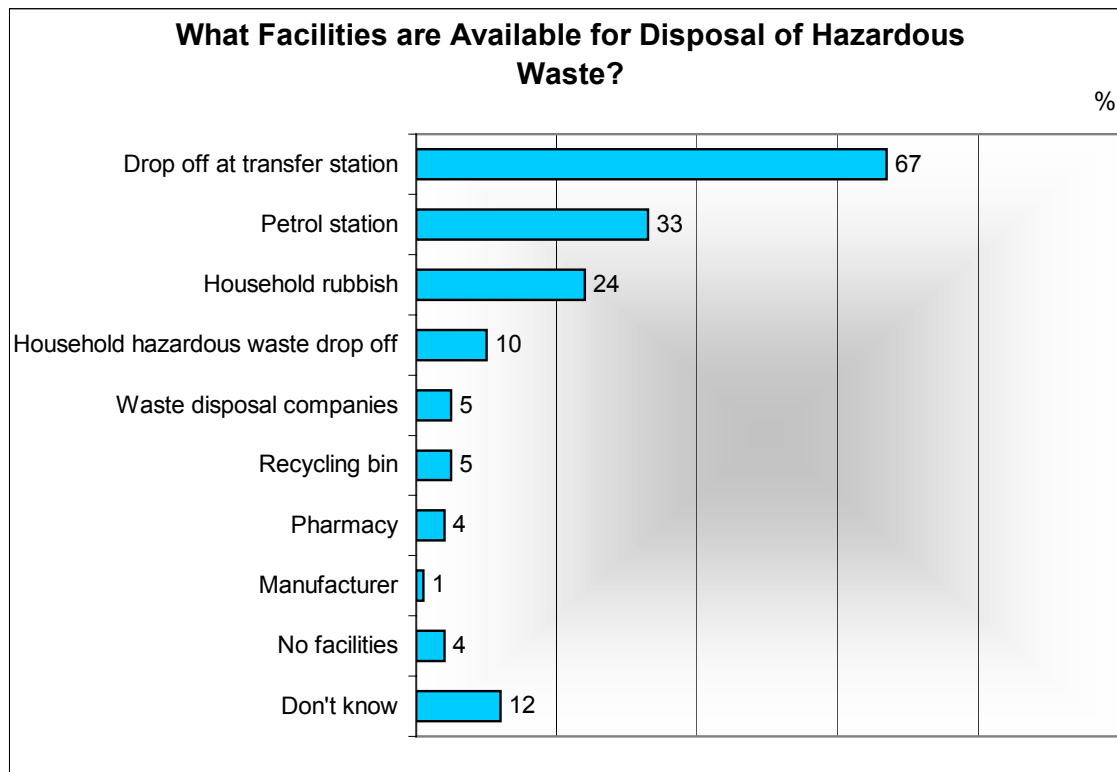
- Less likely to believe people should be responsible for disposal of their waste.

**Waimate:**

- More likely to believe the Council should be responsible for disposal
- Less likely to believe people should be responsible for disposal of their waste
- Less likely to think people dispose of hazardous waste responsibly
- Less likely to think there are adequate facilities for disposal
- Less likely to think there is enough information.

### 8.3 Provision of Services to Deal with Household Hazardous Waste

#### 8.3.2 Facilities Available



Base: All in Canterbury (710)

It has already been identified that the majority of residents do not believe that there are sufficient facilities available for the disposal of household hazardous waste.

Respondents were asked what facilities they could think of.

Two-thirds (67%) mentioned dropping it off at a transfer station and a third (33%) mentioned taking it to a petrol station.

Just under a quarter (24%) mentioned putting waste in the household rubbish and exactly one in ten said a hazardous waste drop off.

All other answers were mentioned by fewer than one in ten.

Those most likely to mention dropping waste at a transfer station were:

- Aged 60-69 (80%)
- Living in Kaikoura (88%) and Waimakariri (82%).

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Those most likely to mention taking waste to a petrol station were:

- Aged 26-29 (40%)
- Professional/ managerial/ clerical workers (39%)
- Living in Christchurch (40%) and Banks Peninsula (43%).

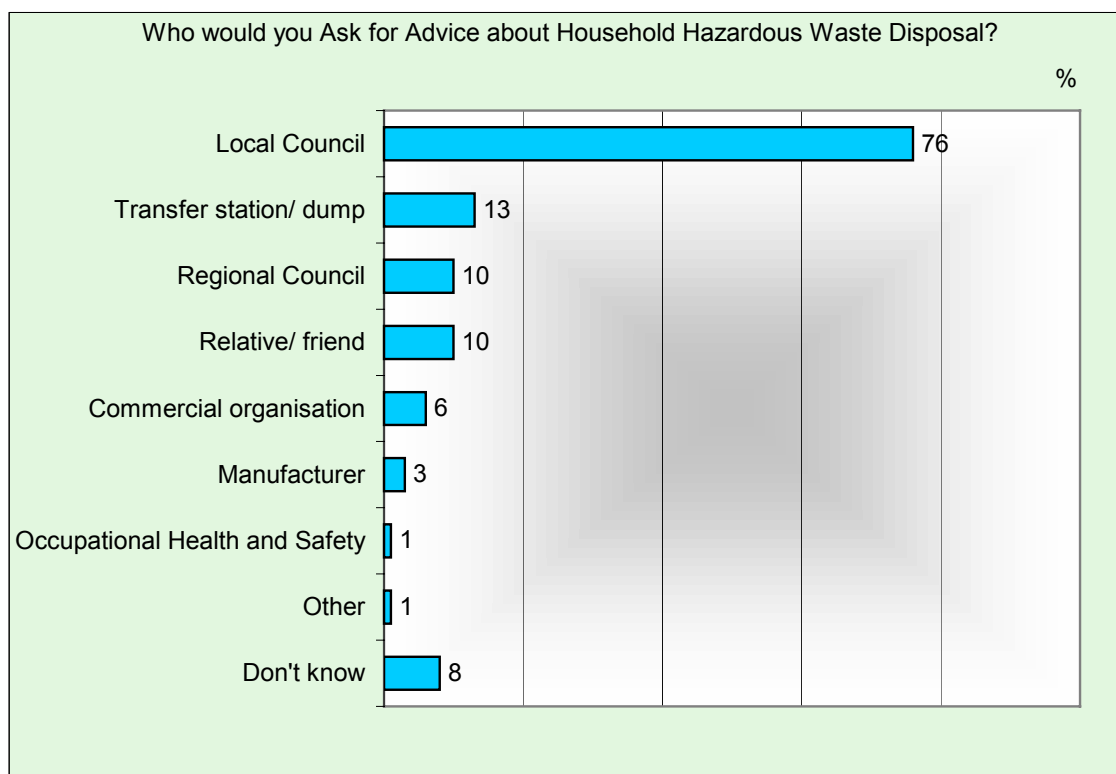
Those most likely to mention putting waste in the household rubbish were:

- Semi or unskilled workers (32%)
- Living in Christchurch (30%).

Those most likely to mention taking waste to a hazardous waste drop off were:

- Aged 30-39 (15%) and aged 50-59 (16%)
- Living in Banks Peninsula (24%).

### 8.3.2 Advice Available



**Base: All in Canterbury (710)**

It has been shown that there is a perception among most Canterbury residents that there is insufficient information about the disposal of hazardous household waste.

Respondents were asked whom they would ask for advice about disposing of household hazardous waste.

Three-quarters (76%) mentioned the Local Council.

Some 13% said that they would ask the transfer station or dump and exactly one in ten said they would ask the Regional Council or a relative or friend.

All other answers were mentioned by fewer than one in ten.

Those most likely to mention asking the Local Council were:

- Aged 40-49 (83%)
- There was little regional variation on this response.

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Those most likely to mention asking the transfer station or dump were:

- Aged 30-39 (22%)
- Again, there was little regional variation on this response.

Those most likely to mention asking the Regional Council were:

- Living in Selwyn (22%), Timaru (22%) or MacKenzie (58%).

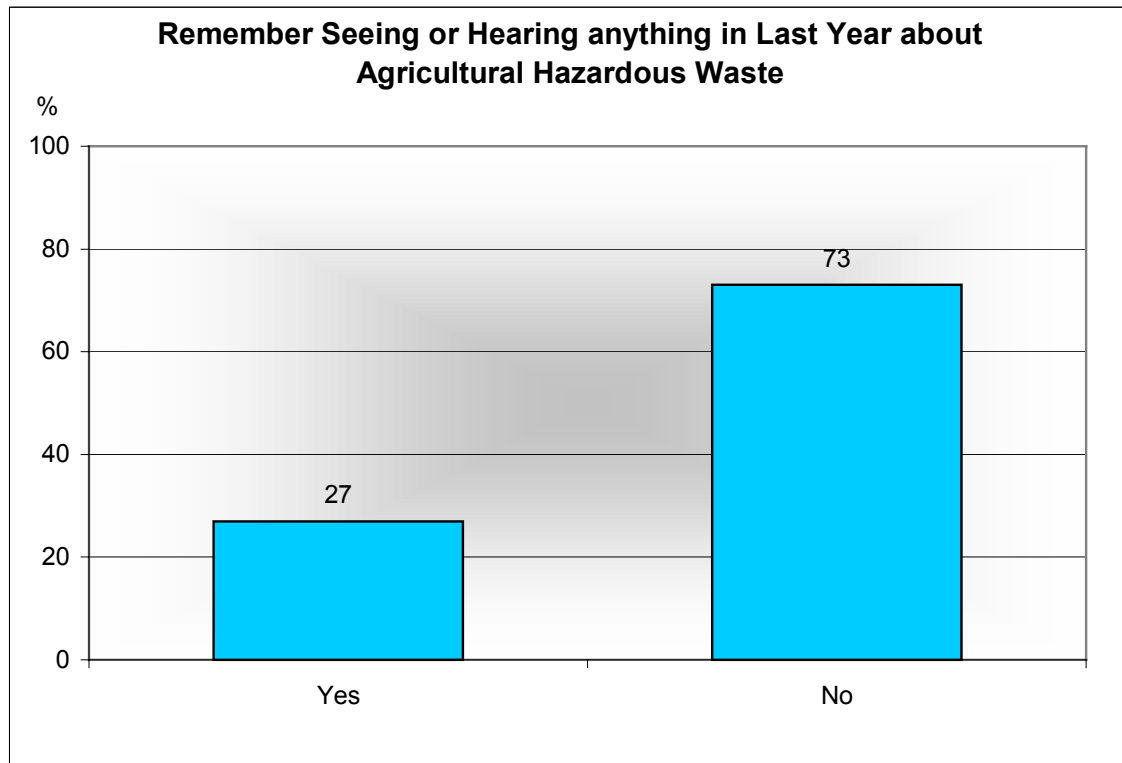
Those most likely to mention asking a relative or friend were:

- Aged 15-19 (33%)
- School students (37%) and tertiary students (21%)
- Living in Ashburton (16%).

## 9. Agricultural Hazardous Waste: Research Findings

### 9.1 Communication about Agricultural Hazardous Waste

#### 9.1.1 Recall of Communication about Agricultural Hazardous Waste

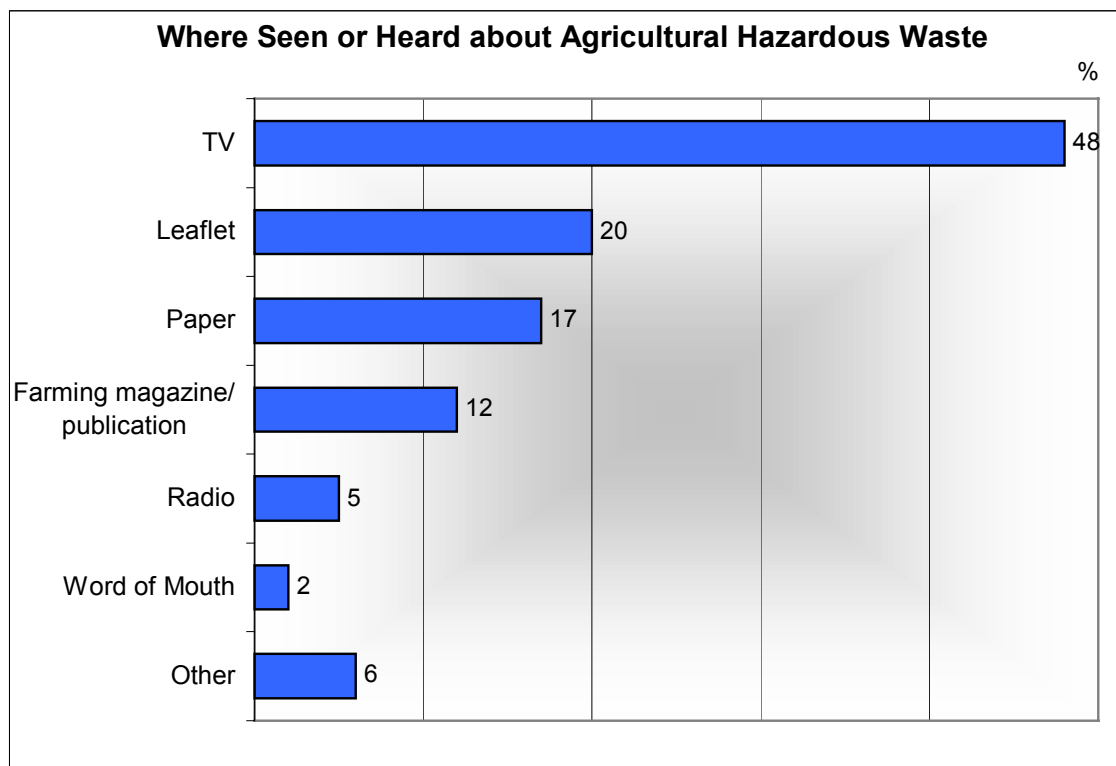


**Base: All who work in agriculture in Canterbury (109)**

Those who work in the agricultural sector, either full or part time, were asked if they remembered seeing or hearing anything about agricultural hazardous waste in the last year.

Some 27% of agricultural workers said that they had seen or heard something about agricultural hazardous waste.

### 9.1.2 Where Seen or Heard about Agricultural Hazardous Waste



**Base: All in agriculture who had seen or heard something (24)**

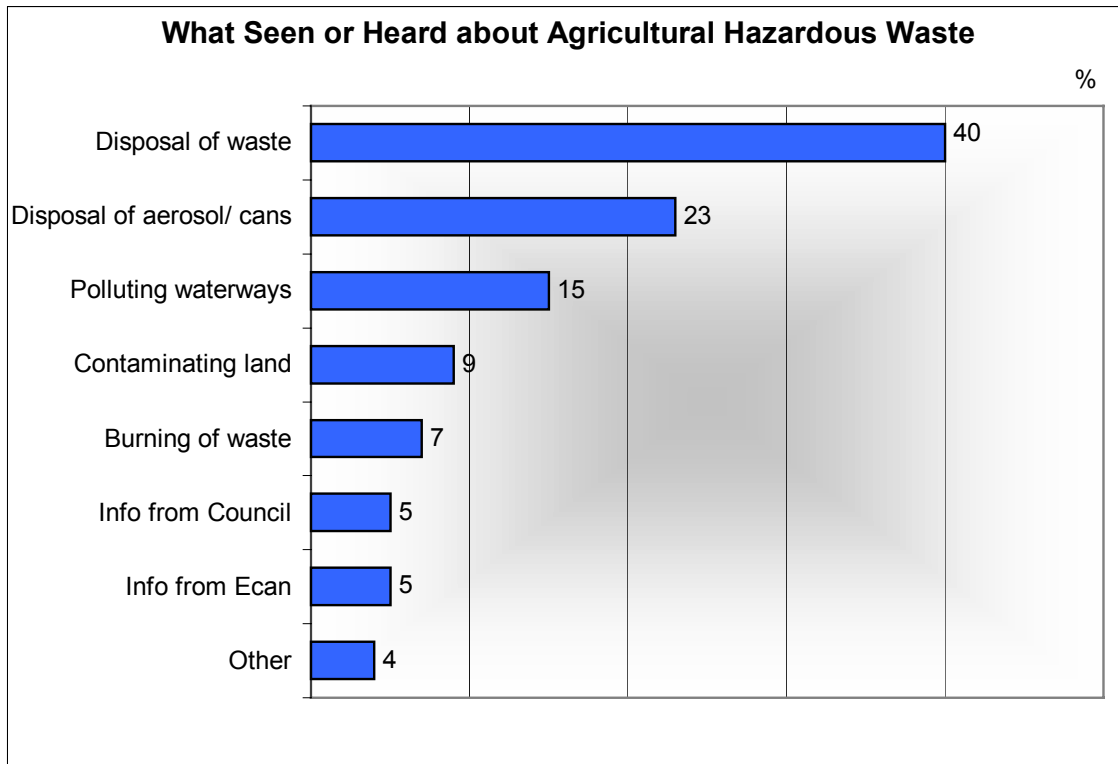
Those who had seen or heard something agricultural hazardous waste were asked where they had seen it.

Nearly half (48%) said they had seen it on television and a further 20% said they had seen it in a leaflet.

Some 17% had read something in a newspaper and 12% had read something in a farming publication.

Just one in twenty (5%) had heard something on the radio and 2% had heard through word of mouth.

### 9.1.3 What Seen or Heard about Agricultural Hazardous Waste



**Base: All in agriculture who had seen or heard something (24)**

Those who had seen or heard something about agricultural hazardous waste were asked what they had seen or heard.

Two-fifths (40%) said they had seen or heard something about disposal of waste.

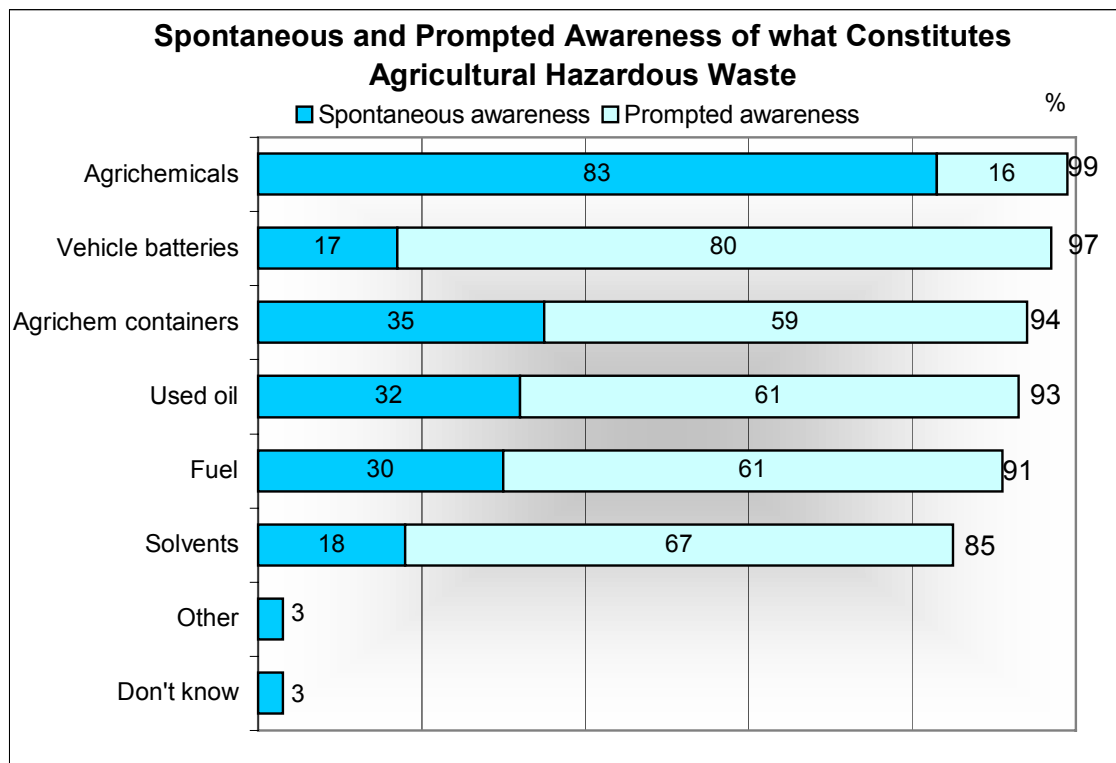
Just under a quarter (23%) said the communication had been about disposal of aerosols and 15% said it had been polluting waterways.

Just under one in ten (9%) mentioned contaminating land and 7% mentioned burning waste.

Other answers were information from Environment Canterbury (5%) and information from the Council (5%).

## 9.2 Understanding of Agricultural Hazardous Waste and Behaviour

### 9.2.1 Items that Form Agricultural Hazardous Waste



**Base: All who work in agriculture in Canterbury (109)**

Agricultural workers were asked to name items that form hazardous waste. Initially, they were asked without being prompted with possible answers, and then respondents were prompted with any they had not mentioned.

Some 83% spontaneously mentioned agricultural chemicals as an example of agricultural hazardous waste and a further 16% mentioned this when prompted. This means that, in total, 99% mentioned agricultural chemicals.

About a third mentioned agrichemical containers (35%) and used oil (32%) spontaneously. A further 59% mentioned agrichemical containers when prompted and 61% mentioned used oil when prompted.

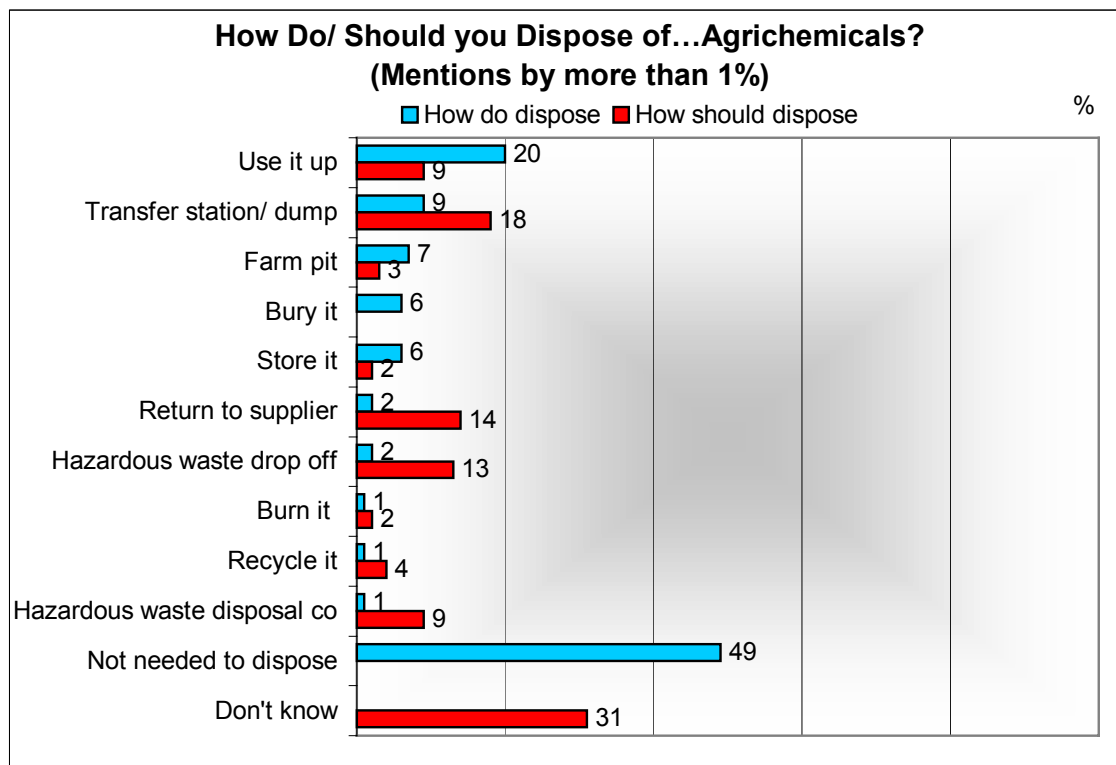
Some 30% mentioned fuel spontaneously and a further 61% mentioned it when prompted.

Though total mentions of vehicle batteries were made by 97%, the majority were prompted (80%) and just 17% mentioned these spontaneously.

18% mentioned solvents or solvent based products spontaneously and 67% mentioned them when prompted.

## 9.2.2 Disposal of Agricultural Hazardous Waste

### 9.2.2.1 Agricultural Chemicals



**Base: All who work in agriculture in Canterbury (109)**

Agricultural workers were asked, firstly, how they personally dispose of agricultural chemicals and then how they believed they should be disposed of.

One in five (20%) said that they simply use their agricultural chemicals up and 9% said that this is the correct form of disposal.

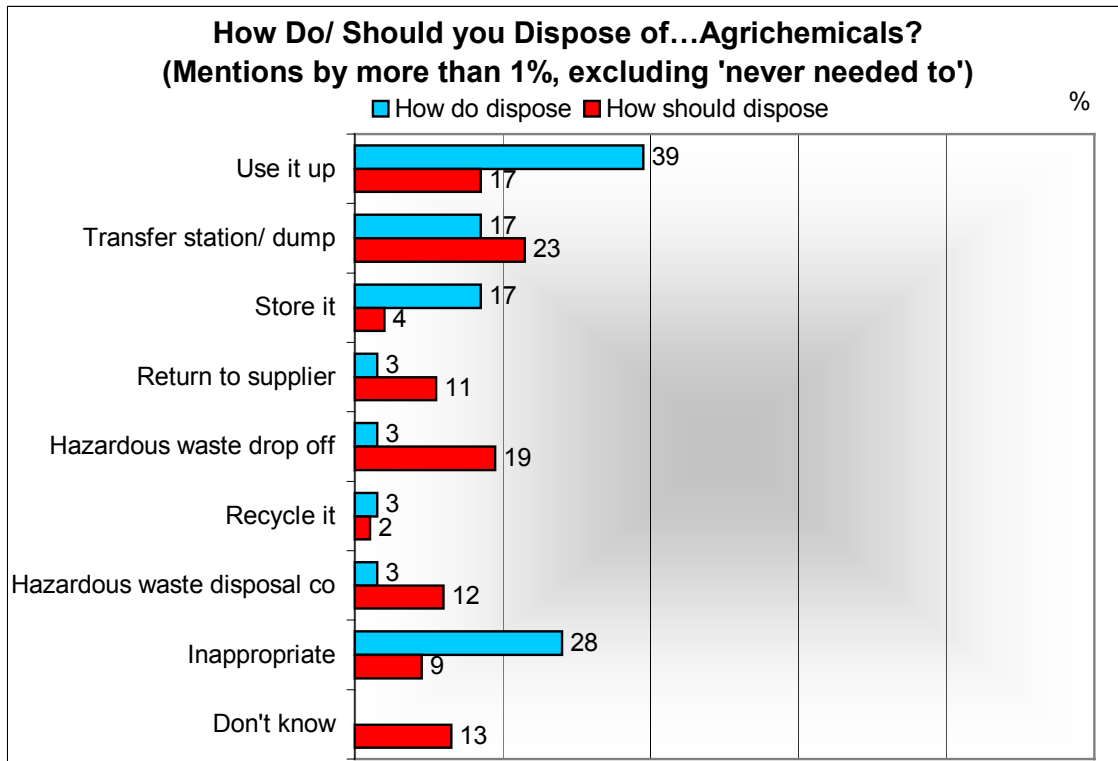
Just under one in ten (9%) said that they take them to the dump and 18% believed this to be the correct form of disposal.

There was some disparity between claimed behaviour and the suggested correct methods of disposal. For example, just 2% said that they return agricultural chemicals to the supplier, but 14% said that this would be the correct form of disposal.

Similarly, 2% said that they take them to a hazardous waste drop off, while 13% consider this to be the correct form of disposal.

Some 49% said that they had not needed to dispose of agricultural chemicals and 31% said they did not know how they should be disposed of.

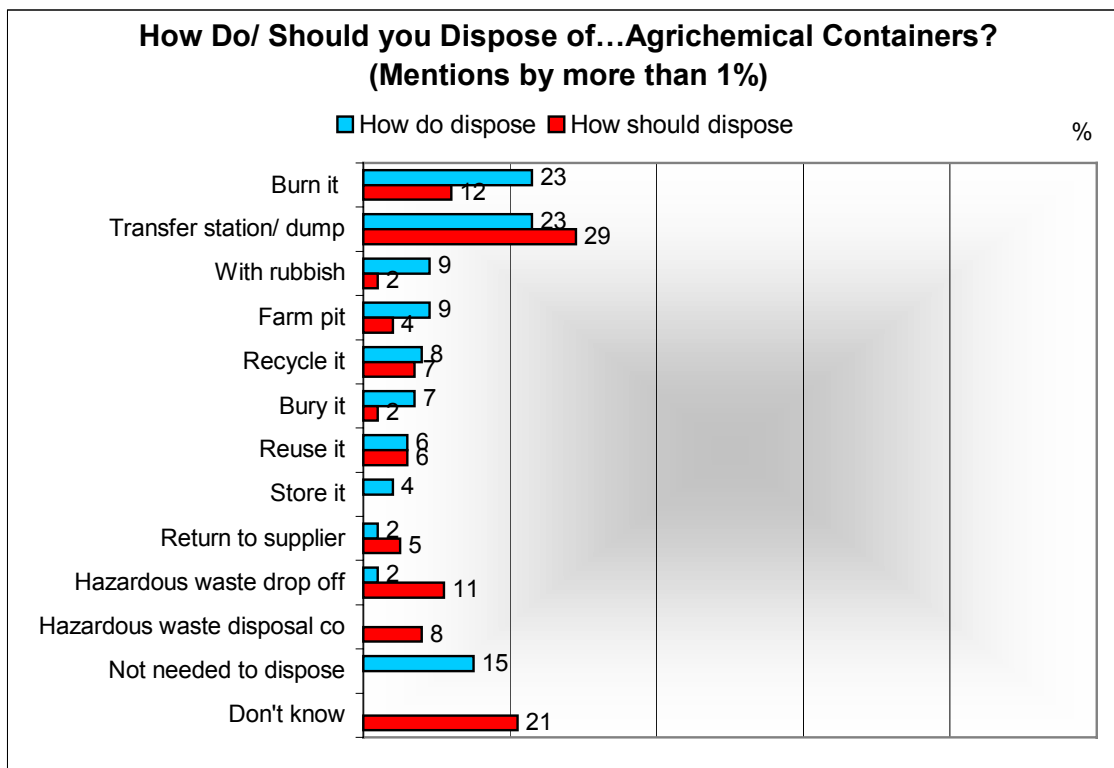
Only agricultural workers who have ever had to dispose of agrichemicals are included in the chart below. Those disposing of them inappropriately are grouped together to illustrate the overall level of this behaviour. Similarly, those who suggested an inappropriate method as the correct form of disposal are grouped together.



**Base: All in agriculture who have disposed of agrichemicals (61)**

Of those who said they have ever disposed of agrichemicals, some 28% have done so inappropriately, although only 9% believed these methods to be correct.

### 9.2.2.2 Agrichemical Containers



**Base: All who work in agriculture in Canterbury (109)**

Agricultural workers were asked, firstly, how they personally dispose of agrichemical containers and then how they believed they should be disposed of.

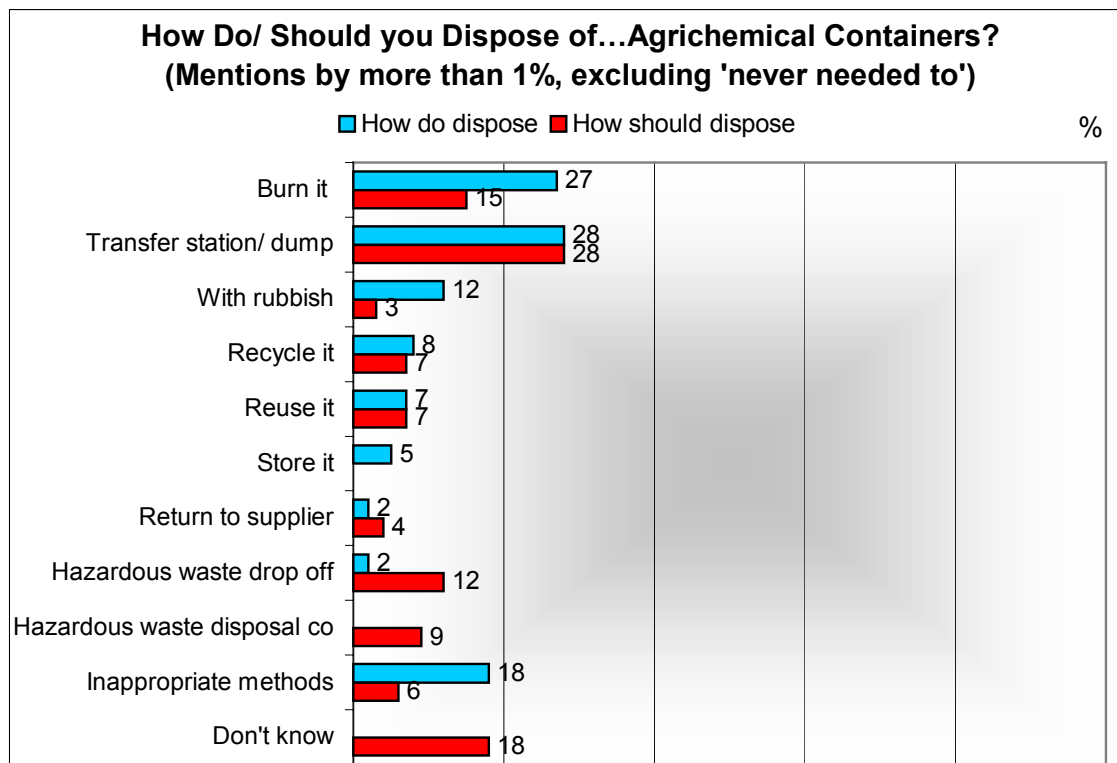
Nearly a quarter (23%) said that they burn them and 12% said that this is the correct form of disposal.

The same proportion (23%) said that they take them to the transfer station or dump and 29% believed this to be the correct form of disposal.

Again, there was some disparity between claimed behaviour and the suggested correct methods of disposal. For example, just 2% said that they take them to a hazardous waste drop off, while 11% consider this to be the correct form of disposal.

Some 15% said that they had not needed to dispose of agrichemical containers and 21% said they did not know how they should be disposed of.

Only agricultural workers who have ever had to dispose of agrichemical containers are included in the chart below. Those disposing of them inappropriately are grouped together to illustrate the overall level of this behaviour. Similarly, those who suggested an inappropriate method as the correct form of disposal are grouped together.

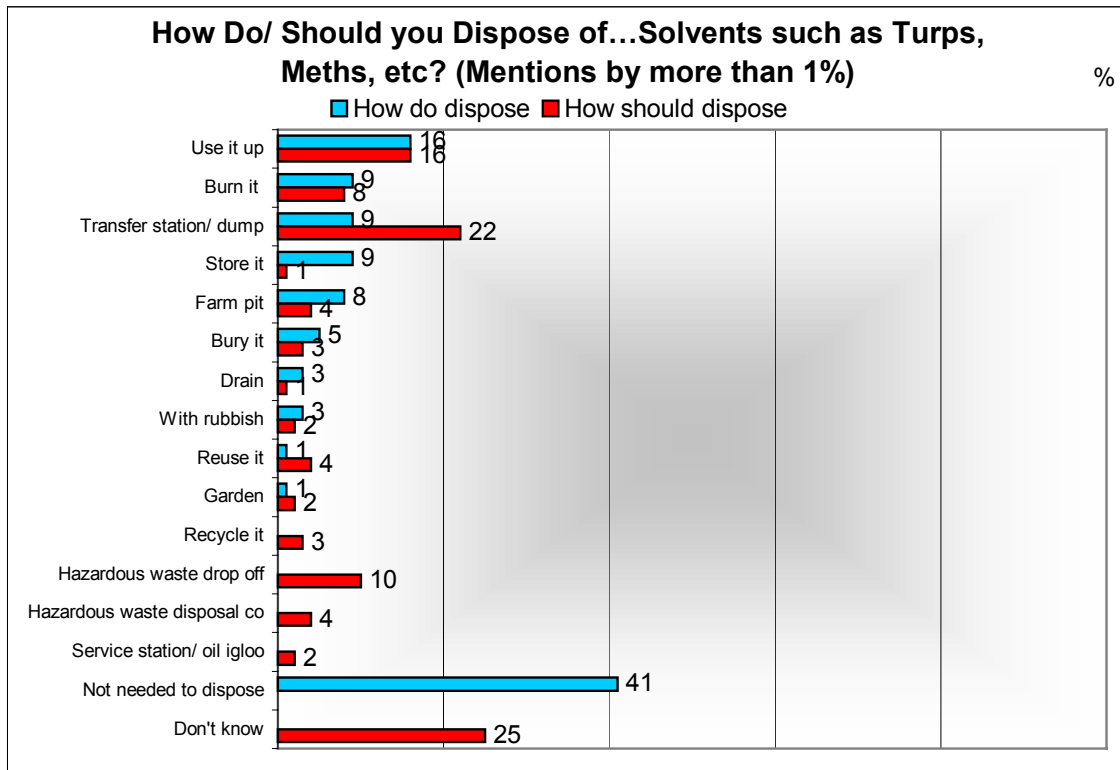


**Base: All in agriculture who have disposed of agrichemical containers (84)**

Of those who said they have ever disposed of agrichemical containers, some 18% have done so inappropriately, although only 6% believed these methods to be correct.

Some 18% of those who have disposed of agrichemical containers said that they did not know how to do so correctly.

9.2.2.3 Solvents (Turps, Meths, etc)



Base: All who work in agriculture in Canterbury (109)

Agricultural workers were asked, firstly, how they personally dispose of solvents and then how they believed they should be disposed of.

Some 16% said that they use their solvents up and exactly the same proportion said that this is the correct form of disposal.

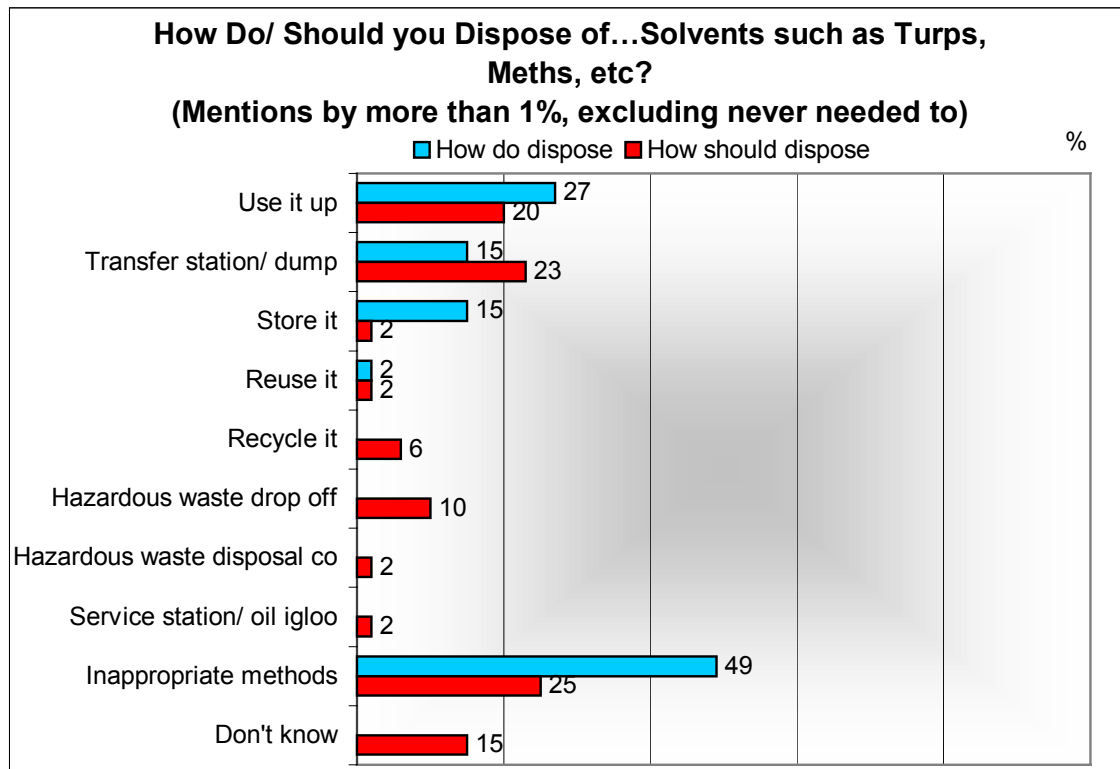
Just under one in ten (9%) said that they burn them and 8% believed this to be the correct form of disposal.

Some 9% said that they take solvents to the transfer station or dump, but 22% said that this would be the correct form of disposal.

Similarly, though nobody said that they take them to a hazardous waste drop off, 10% considered this to be the correct form of disposal.

Some 41% said that they had not needed to dispose of solvents and 25% said they did not know how they should be disposed of.

Only agricultural workers who have ever had to dispose of solvents are included in the chart below. Those disposing of them inappropriately are grouped together to illustrate the overall level of this behaviour. Similarly, those who suggested an inappropriate method as the correct form of disposal are grouped together.

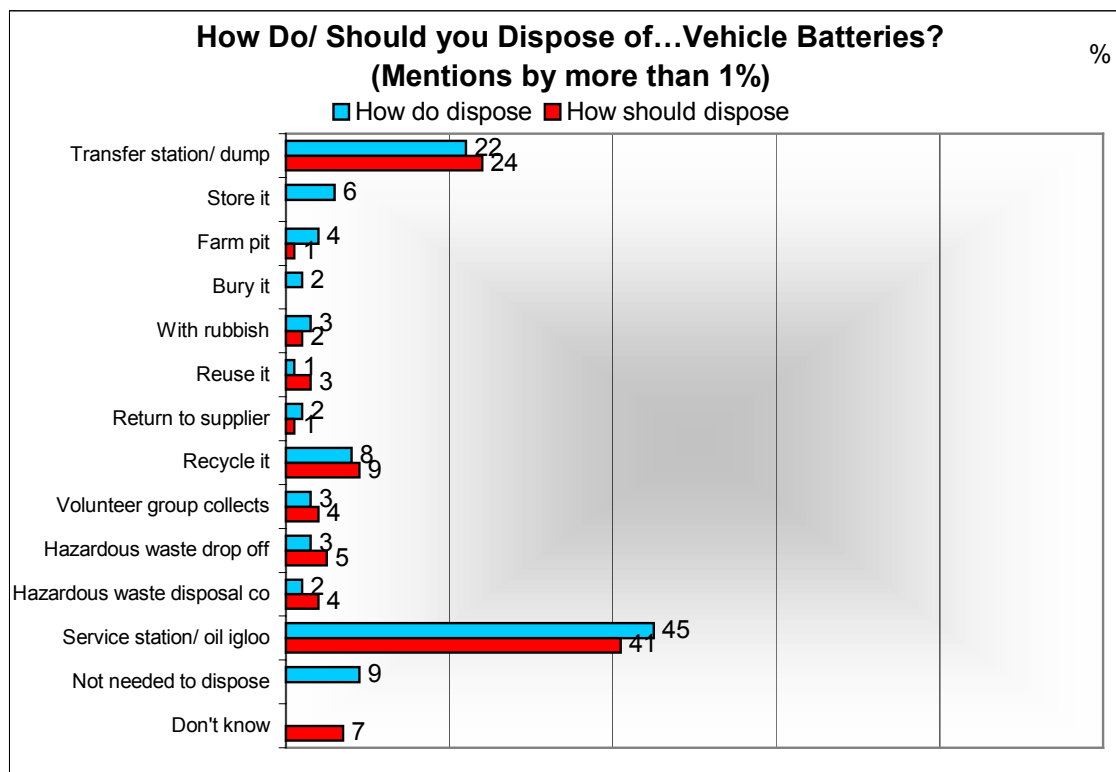


**Base: All in agriculture who have disposed of solvents (67)**

Of those who said they have ever disposed of solvents, nearly half (49%) have done so inappropriately and a quarter (25%) believed these methods to be correct.

Some 15% of those who have disposed of solvents said that they did not know how to do so correctly.

### 9.2.2.4 Vehicle Batteries



**Base: All who work in agriculture in Canterbury (109)**

Agricultural workers were asked, firstly, how they personally dispose of vehicle batteries and then how they believed they should be disposed of.

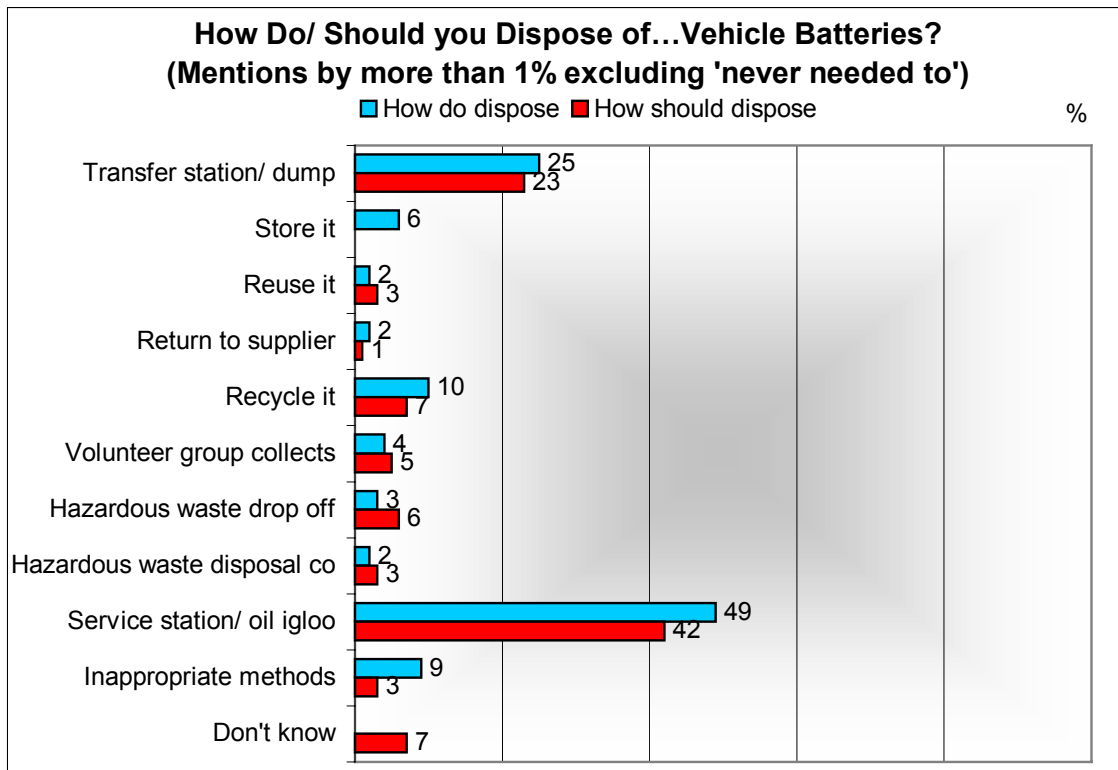
Some 45% said that they take batteries to a service station or an oil igloo and 41% believed this to be the correct way to dispose of them.

Over one in five (22%) said that they take vehicle batteries to the transfer station or the dump and around the same proportion (24%) said that this is the correct form of disposal.

All other answers were mentioned by fewer than one in ten, the main one of these being recycling, which 8% claimed to do and 9% believed is the correct method of disposal.

Some 9% said that they had not needed to dispose of vehicle batteries and 7% said they did not know how they should be disposed of.

Only agricultural workers who have ever had to dispose of vehicle batteries are included in the chart below. Those disposing of them inappropriately are grouped together to illustrate the overall level of this behaviour. Similarly, those who suggested an inappropriate method as the correct form of disposal are grouped together.

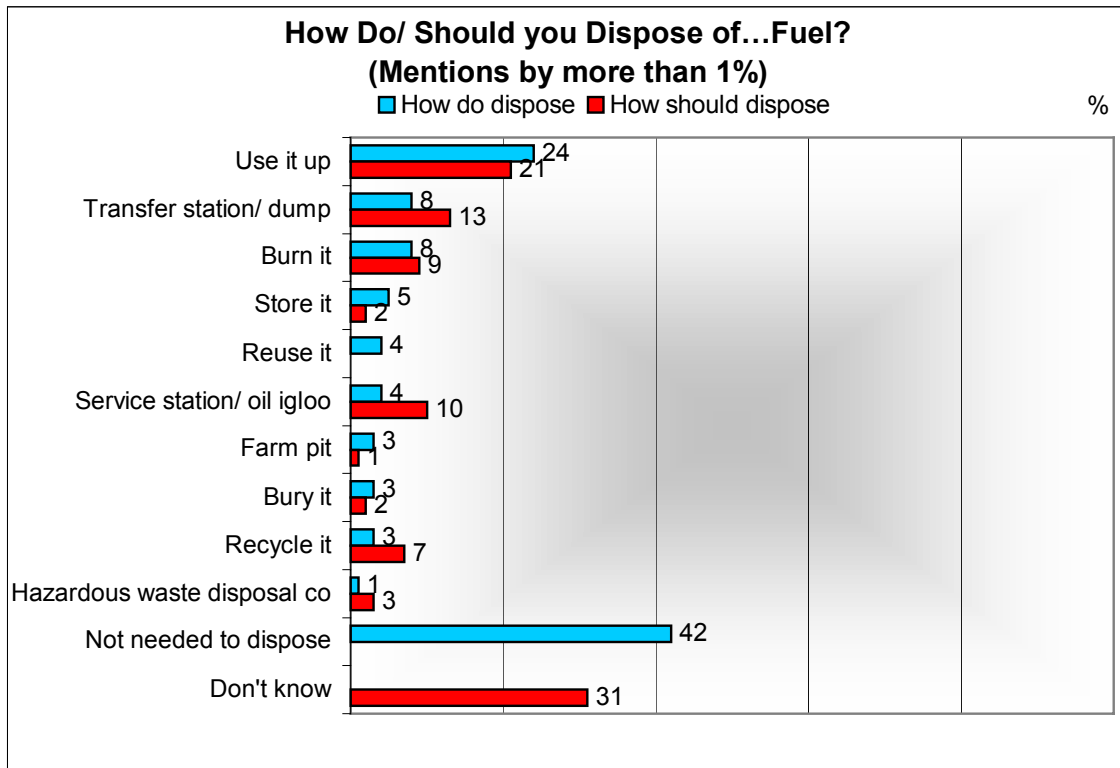


**Base: All in agriculture who have disposed of vehicle batteries (101)**

Of those who said they have ever disposed of vehicle batteries, just 9% have done so inappropriately and only 3% believed these methods to be correct.

Some 49% of those who have disposed of vehicle batteries said that they took them to a service station or oil igloo, while 42% believed this to be correct.

**9.2.2.5 Fuel**



**Base: All who work in agriculture in Canterbury (109)**

Agricultural workers were asked, firstly, how they personally dispose of fuel and then how they believed it should be disposed of.

A quarter (24%) said that they simply use their fuel up and 21% said that this is the correct form of disposal.

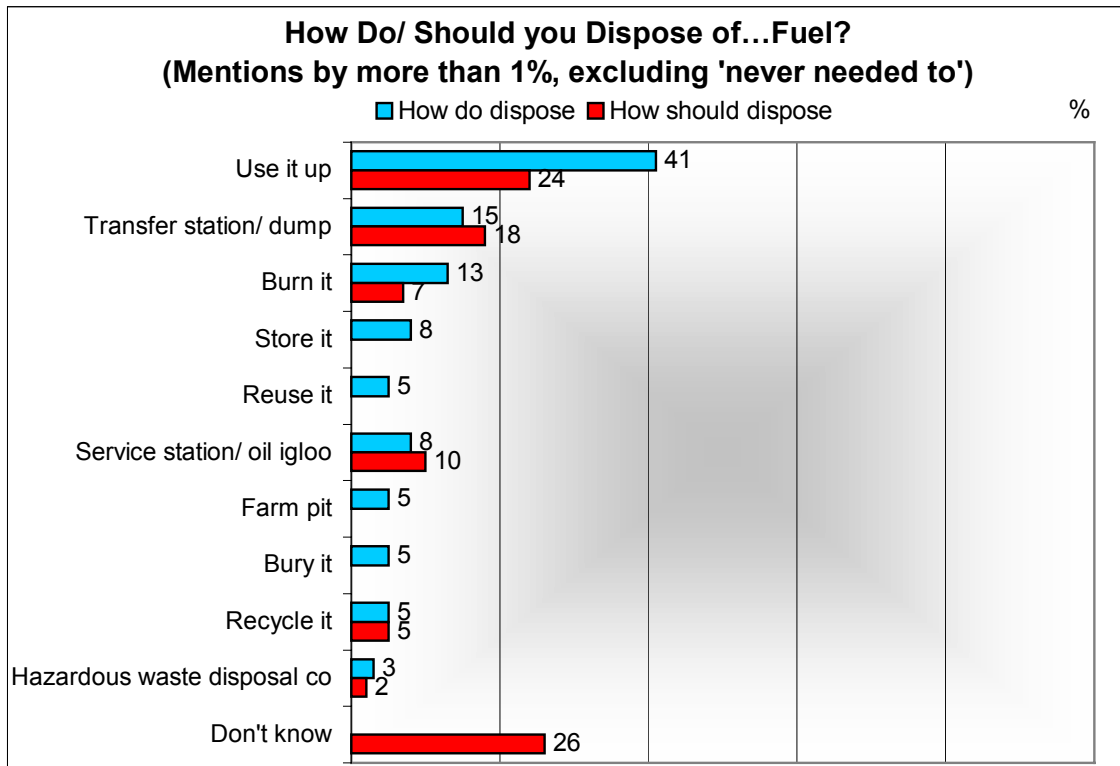
Just under one in ten (8%) said that they take it to the transfer station or dump and 13% believed this to be the correct form of disposal.

Some 8% said that they burn their fuel and 9% believed this to be correct.

Just 4% said that they take fuel to a service station or oil igloo, though 10% believed this to be correct.

Some 42% said that they had not needed to dispose of fuel and 31% said they did not know how it should be disposed of.

Only agricultural workers who have ever had to dispose of fuel are included in the chart below.

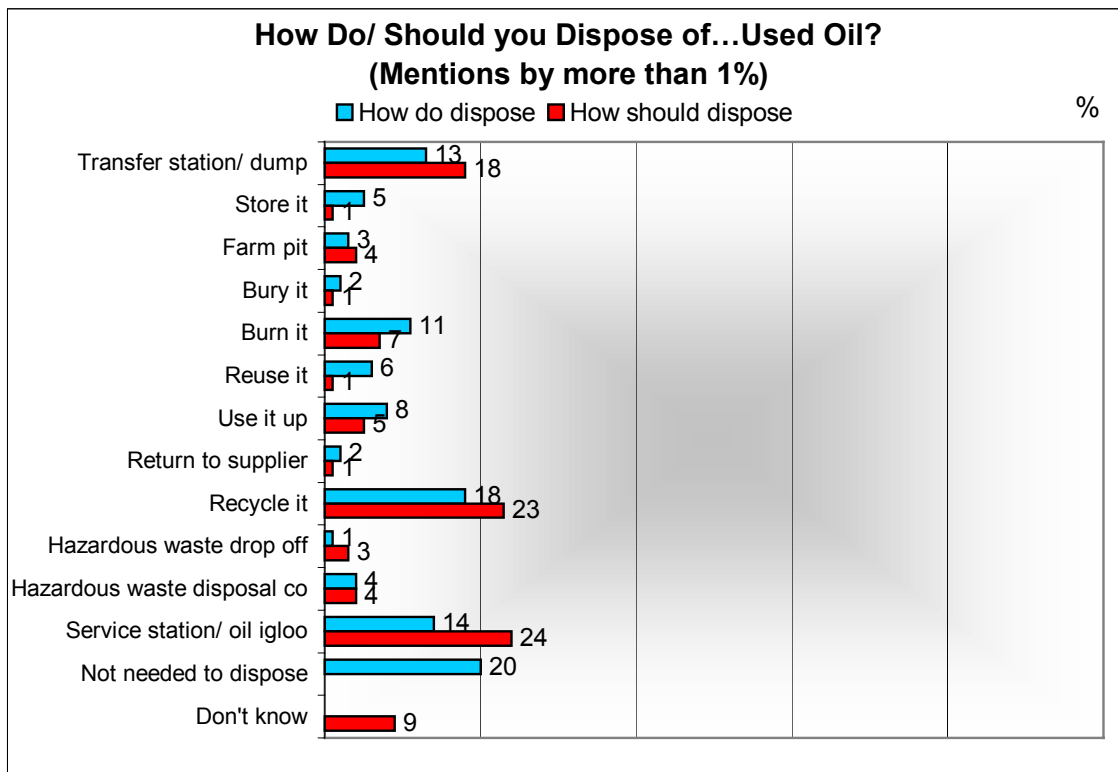


**Base: All in agriculture who have disposed of (70)**

Of those who said they have ever disposed of fuel, some 41% said that they use it up and 24% believed this to be correct.

Some 26% of those who have disposed of fuel said that they did not know how to do so correctly.

9.2.2.6 Used Oil



Base: All who work in agriculture in Canterbury (109)

Agricultural workers were asked, firstly, how they personally dispose of used oil and then how they believed it should be disposed of.

Some 18% said that they recycle it while 23% said that they believed this to be correct.

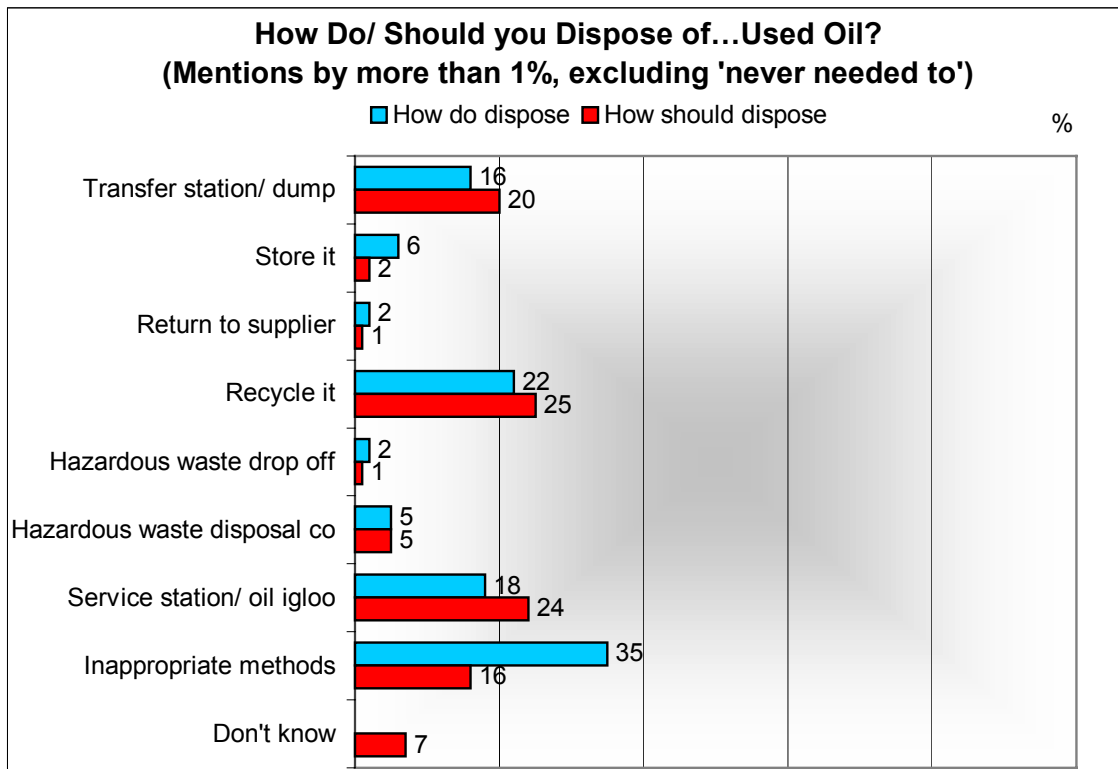
About a quarter (24%) believed the correct way to dispose of used oil is to take it to a service station or oil igloo, though just 14% said that they do this.

13% said that they take oil to the transfer station or dump and 18% believed this to be the correct form of disposal.

Just over one in ten (11%) said that they burn oil, while 7% believed this to be correct.

Some 20% said that they had not needed to dispose of oil and 9% said they did not know how it should be disposed of.

Only agricultural workers who have ever had to dispose of used oil are included in the chart below. Those disposing of it inappropriately are grouped together to illustrate the overall level of this behaviour. Similarly, those who suggested an inappropriate method as the correct form of disposal are grouped together.



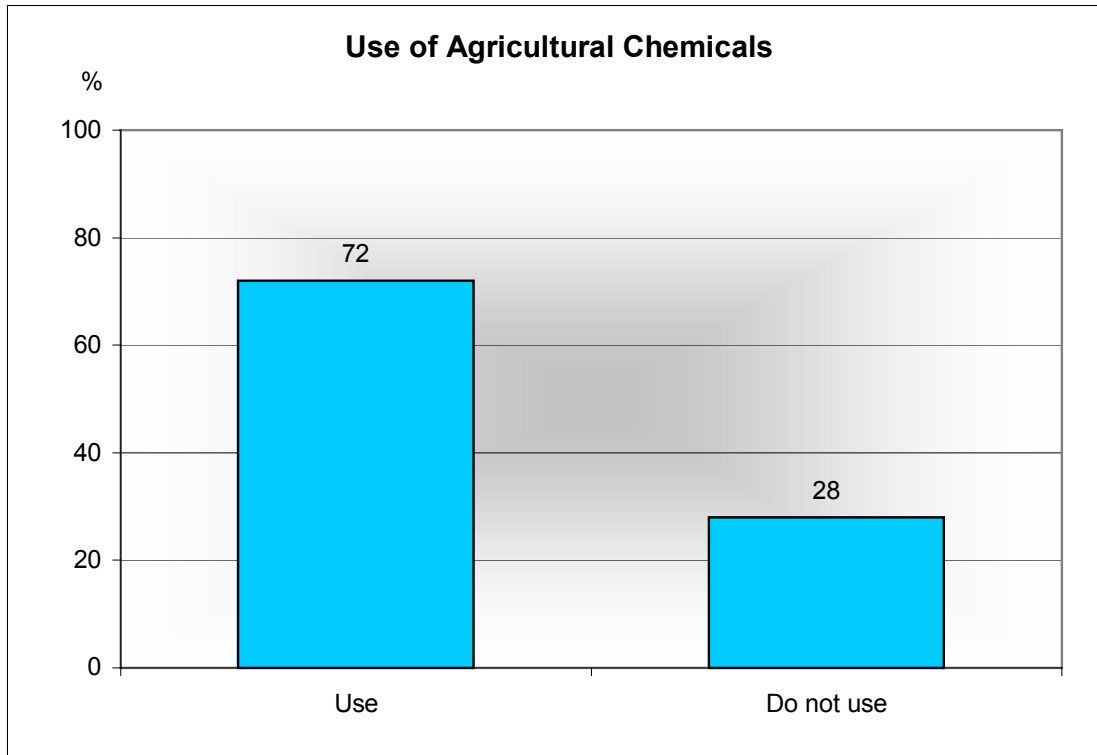
**Base: All in agriculture who have disposed of used oil (90)**

Of those who said they have ever disposed of used oil, more than a third (35%) have done so inappropriately and 16% believed these methods to be correct.

Some 7% said they did not know how to correctly dispose of used oil.

### 9.2.3 Agricultural Chemicals

#### 9.2.3.1 Use of Agricultural Chemicals

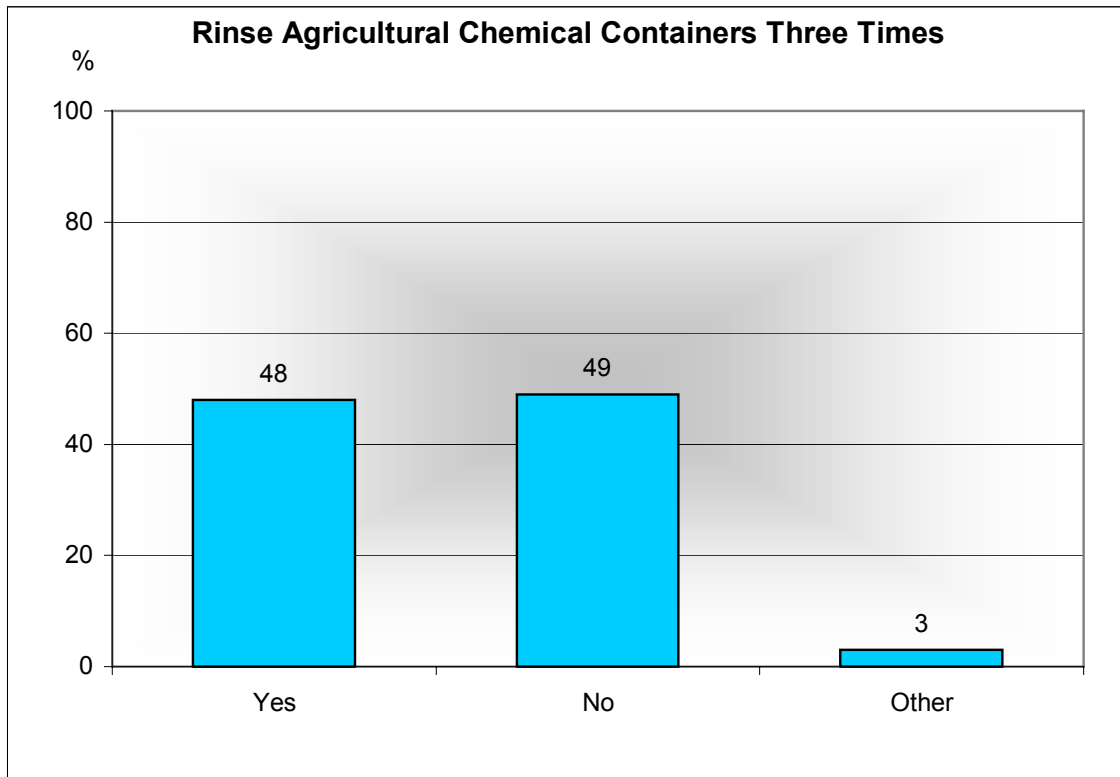


**Base: All who work in agriculture in Canterbury (109)**

Agricultural workers were asked if they used agricultural chemicals.

Nearly three-quarters (72%) said that they did.

### 9.2.3.2 Rinsing of Agricultural Chemical Containers

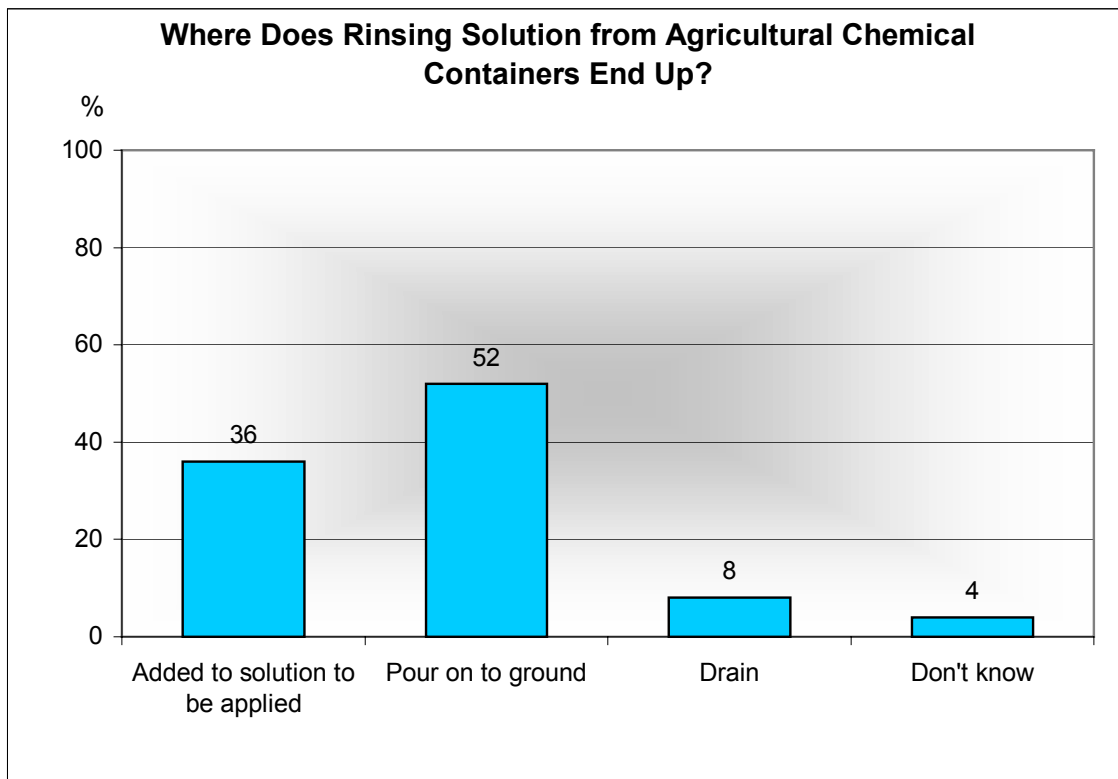


**Base: All who work in agriculture and use agrichemicals (77)**

Those who said that they did use agricultural chemicals were asked if they rinsed the containers three times after use.

About half (48%) said that they did and a similar proportion (49%) said that they did not.

### 9.2.3.3 Disposal of Rinsing Solution



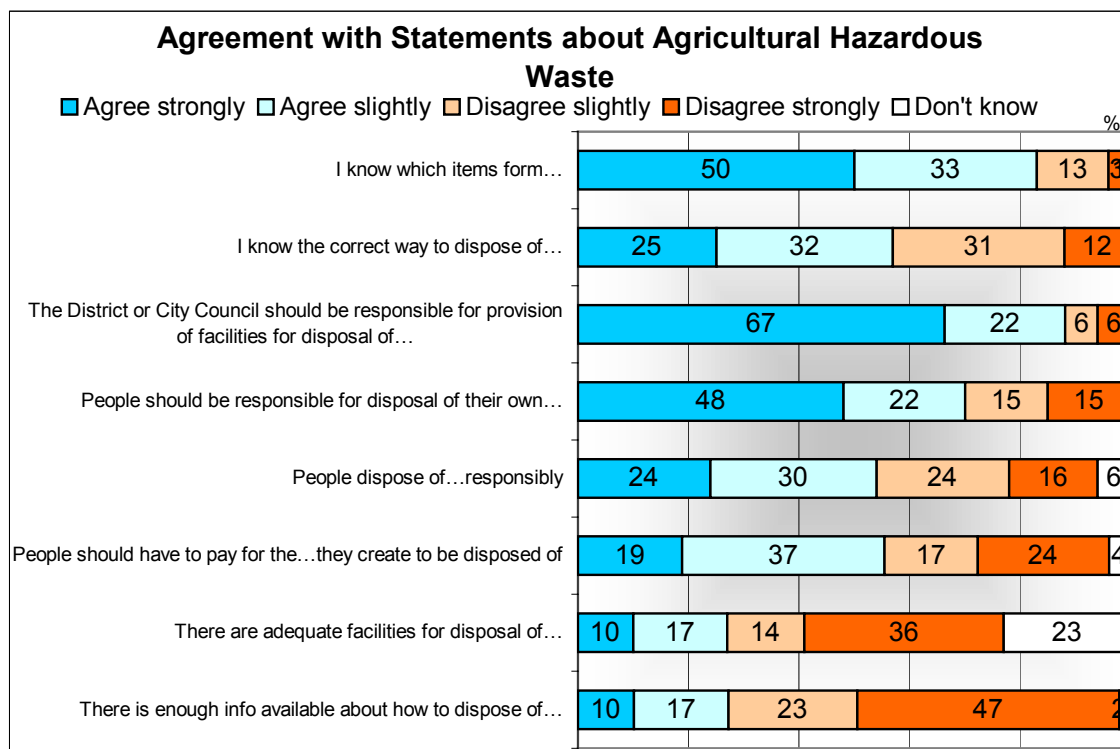
**Base: All who rinse containers three times (42)**

Agricultural workers who claimed to rinse chemical containers three times were asked where the rinsing solution ends up.

Just over a third (36%) said that it ends up being added to the rinsing solution to be applied, while more than half (52%) said that it is poured on the ground.

Just fewer than one in ten (8%) said that they pour it down the drain.

### 9.2.4 Agreement with Statements about Agricultural Hazardous Waste



**Base: All who work in agriculture in Canterbury (109)**

Agricultural workers were asked to what extent they agreed or disagreed with a number of statements about agricultural hazardous waste.

There was a high level of agreement that Councils should be responsible for provision of facilities to dispose of agricultural hazardous waste. Two-thirds (67%) agreed with this strongly and 22% agreed with it slightly.

Existing provision of facilities was felt to be adequate by just 27% (10% agreed strongly and 17% agreed slightly) and the same proportion agreed that there is enough information available about disposal of agricultural hazardous waste.

It was also felt by the majority that people should be responsible for disposal of their own hazardous waste. Nearly half (48%) agreed with this strongly and 22% agreed slightly.

Nevertheless, there was less agreement that people should be responsible for paying for its disposal. Some 19% agreed strongly with this and 37% agreed slightly.

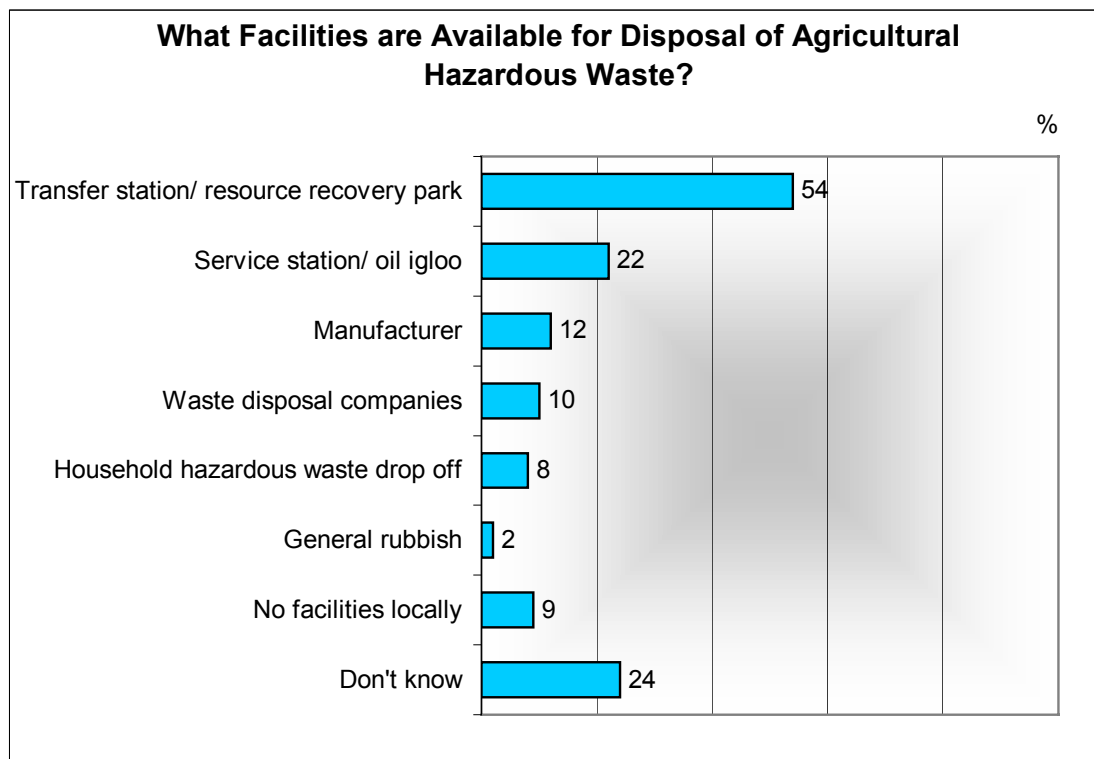
Some 83% agreed (50% strongly and 33% slightly) that they know which items form hazardous waste, though there was less agreement that respondents know how to dispose of it correctly (25% agreed strongly and 32% slightly).

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Just over half (54%) believed people dispose of agricultural hazardous waste responsibly (24% agreed strongly and 30% agreed slightly).

### 9.3 Provision of Services to Deal with Agricultural Hazardous Waste

#### 9.3.1 Facilities Available



**Base: All who work in agriculture in Canterbury (109)**

Levels of agreement with statements about facilities for the disposal of agricultural hazardous waste indicate that many people believe these are not sufficient.

Agricultural workers were asked what facilities they thought were available.

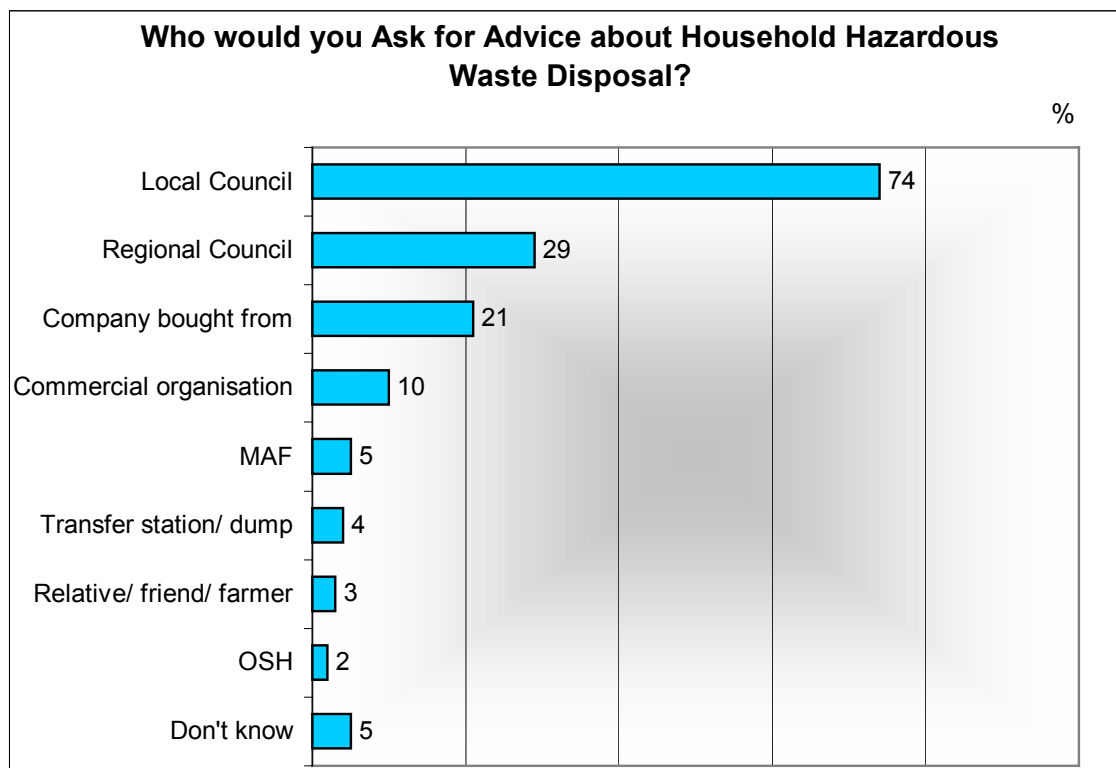
Just over half (54%) mentioned transfer stations or resource recovery parks and about one in five (22%) mentioned service stations and oil igloos.

One in ten said hazardous waste can be returned to the manufacturer (12%) and the same amount said it could be collected by hazardous waste disposal companies (10%).

8% mentioned hazardous waste drop offs and 2% mentioned putting it in the rubbish.

Some 9% claimed no facilities were available locally.

### 9.3.2 Advice Available



**Base: All who work in agriculture in Canterbury (109)**

It is believed by the majority of agricultural workers that there is insufficient information about the disposal of agricultural hazardous waste.

Agricultural workers were asked who they would ask for advice.

Nearly three quarters (74%) mentioned the Local Council and just less than a third (29%) said the Regional Council.

One in five (21%) said they could get advice from the company the product was bought from and one in ten (10%) mentioned commercial organisations generally.

Other responses were given by fewer than one in ten and included MAF (5%), a relative, friend or other farmer (3%), the transfer station or dump (4%) and OSH (2%).

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Appendix I: Questions from Opinions Monitor May 2002

**Questions from May 2002 Opinions Monitor**

Q. Can you please tell me do you work in the agricultural sector either full or part-time, by that I mean in any activity that involves commercial production from the land such as farming, horticulture, market gardening or on a hobby farm?

yes READ OUT: I am going to firstly ask you some questions about **household** hazardous waste. I will then ask you some questions about **agricultural** hazardous waste. So, thinking for now **only** about **household** hazardous waste...CONTINUE

no CONTINUE

Q. Thinking about household hazardous waste, by that I mean items you use inside your house or on your property that form hazardous waste, do you remember seeing or hearing anything in the last year about **household** hazardous waste?

yes

no

Q. Where do you remember seeing or hearing about **household** hazardous waste?

Q. And, what do you remember seeing or hearing on/ in...

Q. Q.

television \_\_\_\_\_

newspaper \_\_\_\_\_

leaflet \_\_\_\_\_

website \_\_\_\_\_

other SPECIFY ↓  
\_\_\_\_\_

Q. What household items, by that I mean items you use inside your house or on your property, can you think of that form hazardous waste?

Q. And, if you disposed of the following, which would you consider to be household hazardous waste?

Q

Q

- bleach
- medicine
- paint
- garden chemicals such as pesticides
- solvents such as terps, meths, white spirit, kerosene
- diesel or used engine oil
- vehicle batteries
- used hazardous product containers
- other SPECIFY: \_\_\_\_\_
- don't know

Q. Thinking about disposing of different household items, how do you personally dispose of...

READ OUT →bleach medicine paint garden chemicals such as pesticides	solvents such as terps, meths, white spirit, kerosene	diesel or used engine oil	vehicle batteries	used hazardous product containers
---	---	---------------------------	-------------------	-----------------------------------

with the households rubbish

tip it down the sink.

bury it

burn it

store it

take it to the local transfer station/ the dump

take it to a household hazardous waste drop off

use a hazardous waste disposal company

take it to a petrol station/ service station/  
oil igloo/ local garage

other SPECIFY: \_\_\_\_\_

haven't needed to dispose of

Q. And, how **should** each of the following items in your household be disposed of...

READ OUT →bleach medicine paint garden chemicals such as pesticides	solvents such as terps, meths, white spirit, kerosene	diesel or used engine oil	vehicle batteries	used hazardous product containers
---	---	---------------------------	-------------------	-----------------------------------

with the households rubbish

tip it down the sink

bury it

burn it

store it

take it to the local transfer station/ the dump

take it to household hazardous waste drop off

use a hazardous waste disposal company

take it to a petrol station/ service station/  
oil igloo/ local garage

other SPECIFY: \_\_\_\_\_

don't know

Q. Could you please tell me whether you agree or disagree with each of the following...

disagree    disagree    agree    agree    (don't  
strongly    slightly    slightly    strongly    know)

I know which household items form hazardous waste

I know of the correct way to dispose of hazardous household products

The District or City Council should be responsible for the provision of facilities for the disposal of household hazardous waste

People should be responsible for the disposal of their own household hazardous waste

People dispose of household hazardous waste responsibly

Households should have to pay for the hazardous waste they create, to be disposed of

There are adequate facilities available for the disposal of household hazardous waste

There is enough information available about how to dispose of household hazardous waste

Q. Thinking about the facilities that are available for the disposal of household hazardous waste, what facilities can you think of?

with the households rubbish

local council drop off at transfer station or at resource recovery park

household hazardous waste drop off

hazardous waste disposal companies

at petrol station/ service station/ oil igloo/ local garage

other SPECIFY: \_\_\_\_\_

no facilities are available locally

don't know

Q. If you needed advice on the disposal of a household hazardous waste, who would you ask for advice?

local council

regional council

Occupational Safety and Health/ OSH

commercial organisations e.g. waste disposal operators

a relative/ friend

transfer station/ dump

other SPECIFY: \_\_\_\_\_

don't know

IF WORK IN AGRICULTURAL SECTOR AT Q ASK Q – Q. OTHERWISE SKIP TO D.  
 READ OUT: I am now going to ask you some questions about agricultural hazardous waste.  
 We are collecting this information to see if there are adequate services and information  
 available for its disposal. All your responses will be treated as confidential.

Q. Do you remember seeing or hearing anything in the last year about **agricultural** hazardous waste?

Yes  
 No

Q. Where do you remember seeing or hearing about **agricultural** hazardous waste?

Q. And, what do you remember seeing or hearing on/ in....

<p>Q.</p> <p>television</p> <p>newspaper</p> <p>leaflet</p> <p>website</p> <p>farming magazine/ publication</p> <p>other SPECIFY ↓</p> <p>_____</p>	<p>Q.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
---	---

Q. What items can you think of that form **agricultural** hazardous waste?

Q. And, if you disposed of the following, which would you consider to be agricultural hazardous waste?

- |   |   |   |
|---|---|---|
|   | Q | Q |
| agric chemicals                                       |   |   |
| agric chem containers                                 |   |   |
| solvents such as terps, meths, white spirit, kerosene |   |   |
| vehicle batteries                                     |   |   |
| fuel  |   |   |
| used oil  |   |   |
| other SPECIFY: _____                                  |   |   |
| don't know  |   |   |

Q. Thinking about disposing of different agricultural items, how do you personally dispose of...

READ OUT → agrichemicals agrichem containers solvents such as terps, meths, white spirit, kerosene vehicle batteries fuel used oil

with the general rubbish

tip it into a drain

farm pit

bury it

burn it

use it up

reuse it

recycle it

store it

volunteer group collects

return it to the supplier

take it to a transfer station/ the dump

take it to a hazardous waste drop off

use a hazardous waste disposal company

take it to a petrol station/ service station/

oil igloo/ local garage

other SPECIFY:

\_\_\_\_\_

haven't needed to dispose of

Q. And, how **should** each of the following agricultural items be disposed of...

READ OUT → agrichemicals agrichem containers solvents such as terps, meths, white spirit, kerosene vehicle batteries fuel used oil

with the general rubbish

tip it into a drain

farm pit

bury it

burn it

use it up

reuse it

recycle it

store it

volunteer group collects

return it to the supplier

take it to a transfer station/ the dump

take it to a hazardous waste drop off

use a hazardous waste disposal company

take it to a petrol station/ service station/

oil igloo/ local garage

other SPECIFY:

\_\_\_\_\_

don't know

Q. Could you please tell me whether you agree or disagree with each of the following...

disagree    disagree    agree    agree    (don't  
strongly    slightly    slightly    strongly    know)

I know what agricultural items  
form hazardous waste

I know the correct way to dispose  
of hazardous agricultural products

The District Council should be responsible for the provision of facilities for  
the disposal of agricultural hazardous waste

People working in agriculture should be responsible  
for the disposal of their own agricultural  
hazardous waste

People working in agriculture dispose of  
agricultural hazardous waste responsibly

People working in agriculture should have to pay for the hazardous  
waste they have created, to be disposed of

There are adequate facilities available for the  
disposal of agricultural hazardous waste

There is enough information available about how to  
dispose of agricultural hazardous waste

Q. Thinking about the facilities that are available for the disposal of agricultural hazardous  
waste, what facilities can you think of?

with the general rubbish

local council drop off at transfer station or at resource recovery park

household hazardous waste drop off

hazardous waste disposal companies

at petrol station/ service station/ oil igloo/ local garage

return to company bought from/ manufacturer

other SPECIFY: \_\_\_\_\_

no facilities are available locally

don't know

Q. If you needed advice on the disposal of an agricultural hazardous waste, who would you  
ask for advice?

local council

regional council

Occupational Safety and Health/ OSH

commercial organisations e.g. waste disposal operators

a relative/ friend/ a farmer

transfer station/ dump

MAF

company bought it from

other SPECIFY: \_\_\_\_\_

don't know

Q. Thinking about agricultural chemicals, do you **use** them?

yes, use

no, do not use

Q. Thinking about agricultural chemical **containers**, when they are **empty**, do you **rinse** them three times?

yes, rinse three times

no, do not rinse three times

other SPECIFY:\_\_\_\_\_

Q. And, where does the rinsing solution end up?

added to the solution to be applied

pour on to the ground

Somewhere else SPECIFY:\_\_\_\_\_

don't know