

# Western Australian Auditor General's Report



## Management of Pesticides in Western Australia



Report 14: June 2015

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ISSN 2200-1913 (Print)  
ISSN 2200-1921 (Online)

WESTERN AUSTRALIAN AUDITOR GENERAL'S REPORT

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**Management of Pesticides in  
Western Australia**

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**THE PRESIDENT  
LEGISLATIVE COUNCIL**

**THE SPEAKER  
LEGISLATIVE ASSEMBLY**

### **MANAGEMENT OF PESTICIDES IN WESTERN AUSTRALIA**

This report has been prepared for submission to Parliament under the provisions of section 25 of the *Auditor General Act 2006*.

Performance audits are an integral part of the overall audit program. They seek to provide Parliament with assessments of the effectiveness and efficiency of public sector programs and activities, and identify opportunities for improved performance.

The audit assessed whether there is a coordinated and effective approach to minimising the risk of inappropriate pesticide use in WA.

My report finds that agencies are working reasonably well to manage the risks of inappropriate pesticide use in WA. However, I have identified a number of weaknesses and have made a number of recommendations that if implemented will allow agencies to better help detect and prevent the misuse of pesticides.

I wish to acknowledge the staff at the Department of Health, Department of Food and Agriculture and WorkSafe, as well as the various stakeholders we spoke with or received input from, for their cooperation with this audit.

A handwritten signature in black ink, appearing to read 'C. Murphy'.

COLIN MURPHY  
AUDITOR GENERAL  
30 June 2015

# Contents

- Auditor General’s Overview ..... 4
- Executive Summary ..... 5
  - Introduction ..... 5
  - Overview ..... 5
  - Audit Conclusion ..... 5
  - Key Findings ..... 6
  - Recommendations ..... 7
  - Agency responses ..... 8
- Audit focus and scope ..... 9
- Background ..... 10
- Licensing and training is generally well managed but some licence checks could be strengthened ..... 11
  - Licensing and training is mostly sound ..... 11
  - Agencies do not check qualifications claimed for high-risk licences ..... 11
  - Permits for dangerous baiting poisons such as 1080 and strychnine are well managed ..... 13
- Pesticide residues in food and the environment are generally at safe levels ..... 14
  - Food monitoring programs show national pesticide limits are not normally exceeded . 14
  - Water quality is a key indicator of appropriate pesticide use ..... 15
  - Most reported pesticide incidents take place in or around the home ..... 16
- Gaps exist in the regime for checking that pesticides are managed safely ..... 17
  - WorkSafe checks workplace use of hazardous substances ..... 17
  - The required checks of safe work practices by other agencies are rarely done ..... 17
  - Better sharing of information would improve agency compliance programs ..... 19
- Appendix 1: Agencies and their role in regulation of pesticides in Western Australia 21

## Auditor General's Overview

Pesticides are often dangerous chemicals designed to either kill or inhibit the growth of plants, insects, and a range of other living organisms. Some pesticides used in the past are now banned because of serious environmental and health impacts. These impacts may only become obvious after a number of years, and may have a cumulative effect. For this reason, it is important that agencies responsible for their use or regulation continually monitor and review practices and to avoid complacency about the risk.



Balanced against pesticide risks is the beneficial role they can play. Pesticides limit or prevent damage caused by insects, weeds and diseases to crops and livestock, parks, forests, buildings, pets and people.

My role as Auditor General is not to question the rights and wrongs of specific public policy, but to ensure that the checks and balances that are in place are working properly. In this audit I found that there is sound management of most aspects of pesticide use in Western Australia. Specifically, training and licensing for the majority of commercial pesticide users is satisfactory. Communication and cooperation between the regulatory agencies is good and there have been only a small number of reported pesticide incidents in recent years.

However, other areas of management can be improved. Licensing and inspection processes need to be strengthened for some high-risk licence categories. Results of monitoring and inspection programs need better follow up to ensure appropriate action is taken and agencies could better plan and coordinate inspection and monitoring activities to make use of their scarce resources.

I hope my report will be a timely reminder of the importance of monitoring and compliance programs to ensure risks to public health and the environment are minimised.

# Executive Summary

## Introduction

This report examined the management of pesticides in Western Australia (WA). The focus was to determine whether there is a coordinated and effective approach to minimising the risk of inappropriate pesticide use in WA.

The audit did not look at manufacturing, importing, warehousing or supply of pesticides up to the point of retail sale.

## Overview

Pesticides are commonly used in agriculture and the broader community. They are chemicals designed to either kill or inhibit the growth of various plants, animals and diseases. They are therefore inherently dangerous and need managing to minimise short and long term risks to the environment and human health.

Agricultural production valued at \$6.8 billion in 2012-13 would be severely impacted by the improper use of pesticides. While pesticide use is common, many people for health reasons avoid using pesticides or buying produce treated with pesticides.

Many WA government agencies have roles to play in the overall management of pesticides. The key agencies are the Departments of Health (DoH) and Agriculture and Food WA (DAFWA), who have roles in licensing, training and regulating commercial pesticide operators. There are various licensing, registration and permit categories for commercial pesticide operators. These include for retailers, pest management businesses and technicians, aerial spraying pilots and poison baiters.

DoH licenses around 2 400 pest management technicians and registers about 800 pest management businesses employing the technicians. These people make up the bulk of those who commercially deal with pesticides. It also licenses around 240 retailers of highly toxic pesticides, while DAFWA issues permits to farmers and technicians who poison feral animals and to people spraying near sensitive crops. It also licenses aerial sprayers.

All pesticides are approved by the Australian Pesticides and Veterinary Medicines Authority and labelled with usage and storage conditions. Pesticide users are required to store and use pesticides in accordance with label, permit and licence conditions.

Other agencies are also involved, but to a lesser degree. These include WorkSafe, the Department of Mines and Petroleum, Department of Environment Regulation, Department of Water, Department of Parks and Wildlife, ChemCentre and local governments. Their roles in pesticide management range from workplace inspections, to management of dangerous goods and incident responses and at times application of pesticides on land they manage.

Our audit focused on the work of the Departments of Health and Agriculture and Food. We also engaged some of the other agencies and a small sample of local governments to assess the management of pesticides in WA.

## Audit Conclusion

Agencies are working reasonably well to manage the risks of inappropriate pesticide use in WA. Licensing and training for the majority of commercial operators is sound, but more rigorous assessment of qualifications and training is required for some licence categories.

National monitoring programs show that pesticide residues in foods rarely exceed accepted levels. However, the State based food monitoring program has shown unacceptable levels of

pesticides in some foods in some years. The Department of Health has not adequately followed up these incidents to understand or address the causes.

Agencies do not regularly check the management and safe use of pesticides. However, the small number of complaints and incidents reported each year are dealt with appropriately. Better coordination of effort, information collection and sharing would help detect and prevent the misuse of pesticides.

## Key Findings

- Registration, licensing and training of the State's 3 200 pest management businesses and technicians is well managed. These people make up the bulk of those who commercially use pesticides. The Department of Health (DoH) keeps a database of all licences and completed training.
- For the relatively fewer high-risk licences, agencies are not checking whether applicants have the qualifications and experience they claim to have. We found agencies used subjective criteria to determine if the qualifications and experience of licence applicants were relevant and sufficient. They also did not require applicants to submit evidence of their qualifications or experience. These high-risk licences include those issued to the 240 retailers of highly toxic pesticides, known as Schedule 7 pesticides. There are also 20 aerial spraying pilots licensed by the Department of Agriculture and Food WA (DAFWA).
- DAFWA issues permits for around 1 000 rural landowners to use highly toxic 1080 poison baits and strychnine. Permits for these dangerous poisons are well managed.
- National food monitoring consistently shows less than one per cent of sampled foods exceed accepted pesticide residue levels. However, the State based monitoring program has found accepted residue levels exceeded in up to 11 per cent of food samples in some years. DoH advised this is because it samples produce more likely to be exposed to higher pesticide use. We found there was limited follow up or reporting of these results. Local governments are required to follow up non-compliant samples that come from their area, but DoH do not get any confirmation of outcomes. Agencies cannot therefore identify the cause and use this information to improve training and feedback to pesticides users, or their own checks of licensed users.
- Water quality monitoring shows that water quality meets agreed standards. Agency monitoring programs show that there have been no adverse incidents reported in the past five years and only a handful of complaints on pesticides from members of the public over the past few years. However, the Poisons Information Centre recorded over 700 pesticide incidents in 2014 with the bulk of these occurring in the home. The Centre advised that none of these incidents resulted in death, however at least 18 had the potential for serious outcomes, five of which were at a workplace. This highlights the need for vigilance when storing or using pesticides.
- DoH and DAFWA rarely carry out legislatively required inspections and checks of licensed operators and permit holders to establish if pesticides are used and managed in accordance with permit conditions and only sold to authorised people. This increases the potential for inappropriate use of pesticides to occur and go undetected. DAFWA advised that some of these legislated checks are outdated and that they would be looking at better ways to target compliance activities.
- WorkSafe also has a role in ensuring safe use of pesticides in the workplace. It conducts risk based workplace inspections to check whether hazardous substances are used correctly. The inspections show that some improvement is needed to ensure that businesses store and use pesticides in accordance with conditions of purchase.

- Agencies have an informal approach to sharing information and do not use information to proactively identify and manage their key risk areas. For example, information on incidents is not routinely reported to other agencies. This can lead to missed opportunities to manage risks identified from the compliance checks of other agencies.

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## Recommendations

### By the end of 2015:

- **The Department of Health should ensure:**
  - they obtain evidence of all statements of qualifications and experience for Schedule 7 pesticide retailers
  - the results from the WA Food Monitoring Program are appropriately followed up by local governments, and that the results are reported and used to identify risk and inform other compliance work
- **The Department of Agriculture and Food WA should ensure:**
  - they regularly check the qualifications of aerial spraying pilots
  - they continue their efforts to update or repeal any outdated pesticide related legislation.
- **The Pesticides Advisory Committee should:**
  - formalise a process to ensure coordination of effort, information collection and sharing between agencies
  - use this information to work with agencies to develop a risk based approach to checking pesticide compliance. This should include any compliance work that is required under legislation or policy.

## Agency responses

### Department of Health

The Department of Health (DOH) appreciates the work undertaken by staff from the Office of the Auditor General (OAG) for this audit, and in particular the thorough and consultative approach to this work.

The Department accepts all of the findings outlined in the report and trusts that our agency's responses and proposed timelines to these are acceptable to the OAG.

In particular, DOH welcomes the finding that DOH's management and oversight is sound and that in combination with other relevant agencies the DOH is working well to minimise the risk of pesticide incidents and impacts on WA.

Finally, the Department thanks the OAG for the interest taken in the important public health issue of management of pesticides in WA.

### Department of Agriculture and Food

The Department of Agriculture and Food (DAFWA) welcomes the findings of the Auditor General's audit of the management of pesticides.

The management of pesticides can be complex and involve up to five agencies depending on the particular incident.

Priorities for DAFWA will be to strengthen interagency coordination and continue updating legislation in line with the national framework for agricultural chemicals.

## Audit focus and scope

The audit focus was on whether there is a coordinated and effective approach to minimising the risk of inappropriate pesticide use in WA.

Our lines of inquiry were:

- Are there effective controls in place to ensure safe and appropriate use of pesticides?
- Are there effective controls in place to detect the misuse of pesticides?
- Are monitoring and compliance programs coordinated and do they result in effective changes to training, labelling, control and use of pesticides?

Our scope was to look at management and regulation of pesticides post manufacture and wholesale, focusing on activities from 2010 to May 2015.

We interviewed staff and reviewed documents and files at the main regulatory agencies. These included the Department of Health, Department of Agriculture and Food, Department of Commerce (WorkSafe), Department of Environment Regulation and the Department of Water. We also observed a meeting of the Pesticides Advisory Committee.

We spoke with key staff at the City of Swan and the Town of Bassendean to gain some insight into issues faced by local governments in managing pesticide use. We did not audit the local governments.

We also considered submissions from members of the public.

We conducted the audit in accordance with Australian Auditing and Assurance Standards.

## Background

Pesticides are chemical substances used to minimise or prevent unwanted damage from pests. They are helpful in preventing damage or nuisance to animals, plants, humans, and the built or natural environment. Pesticides are used extensively in the agricultural, pastoral and horticultural industries, but also in the broader community.

Pesticides are commonly used in growing and producing the food we eat. Agricultural production would be severely affected without the use of pesticides. The gross value of agricultural production for WA was \$6.8 billion in 2012-13. Pesticides such as 1080 and strychnine are also important to the farming and pastoral industries and in many conservation areas and national parks for controlling pests such as wild dogs, foxes, rabbits and feral pigs.

Local councils regularly use pesticides such as for managing weeds in parks and reserves and in mosquito control spraying programs. Imported goods often require fumigation to prevent exotic pests entering our country. Pest management businesses use pesticides to treat homes for termites or other insects and pests. While home gardeners regularly use herbicides and fungicides to get rid of weeds and other pests in their gardens.

When used correctly, pesticides can be a cost effective and safe way of preventing or minimising pest damage. However, if misused they can have serious short and long term impacts on animal and human health, the environment and the economy. For these reasons it is important to effectively regulate and control the supply and use of pesticides.

The regulatory framework for pesticide use is complex, with a number of different jurisdictions, agencies and legislation involved. Before a pesticide can be used in Australia, the Commonwealth Australian Pesticides and Veterinary Medicines Authority (APVMA) determines if it can be used safely, or if conditions of use are needed. It also determines what conditions for safe use and storage are required on the pesticide labels.

After this process is complete, two state bodies have a key role in managing its use. These are DoH and DAFWA.

- DoH licenses pest management businesses and technicians and retailers that sell pesticides classified as Schedule 7 poisons. There are 10 schedules to the Poisons Standard, published as part of the *Therapeutic Goods Act 1989*. Special regulations apply to Schedule 7 poisons, restricting their availability to specialised or authorised users who have the skills necessary to handle them safely.
- DAFWA issues permits for use of 1080 baits and strychnine poison, both of which are Schedule 7 poisons, and licenses aerial spraying operators. Appendix One on page 21 has more detail on the various agencies involved and their responsibilities.

The Pesticides Advisory Committee coordinates pesticide legislation and policies and provides advice to the WA Government as necessary. Its members are DoH, DAFWA, the Department of Environment Regulation, Department of Commerce (WorkSafe), the Chemistry Centre and the Department of Water.

## Licensing and training is generally well managed but some licence checks could be strengthened

Registration of pest management businesses, licensing and training for pest management technicians, and permits to authorise land owners to use 1080 baits and strychnine is well managed. But applicants' claims of qualifications and experience for higher risk licences are not routinely checked.

There are a number of different types of permits and licences issued for commercial pesticide users. DoH and DAFWA are responsible for issuing licences and permits.

Pest management businesses and technicians represent the majority of commercial licences, with over 3 200 new or renewed licences issued each year. (See Table 1 below).

To receive a pest management licence or business registration, applicants pay the annual fees and submit information including proof that they have completed required training. DoH generates about \$600 000 in fees each year from new licences and renewals.

### Licensing and training is mostly sound

The pesticide safety section at DoH manages licensing and sets the training requirements for pest management technicians and registers pest management businesses. They do this well.

Review of a sample of 86 licence applications and renewals showed that all applicants received appropriate training and an authorised person approved their application. All training of technicians is drawn from nationally recognised and accredited competencies.

We also saw DoH reacting to identified industry needs to ensure the pesticide training stayed relevant. For example, staff at the pesticide safety section recognised a need for a Vietnamese language version of a course on how to use a fumigant safely and effectively and then worked with market gardeners, the pesticide supply industry and trainers to develop the course. The Executive Director of Public Health approved the course, with all such courses run by Registered Training Organisations.

### Agencies do not check qualifications claimed for high-risk licences

An aspect of the licensing process that is not well managed is the requirement to seek evidence of qualifications or experience claimed by applicants for high-risk licences.

The pharmaceutical services branch at DoH annually license about 240 retailers that sell pesticides categorised as Schedule 7 poisons. Such poisons can be lethal to humans and animals and include highly toxic pesticides such as 1080 and strychnine, some grain fumigants and some herbicides.

The *Poisons Act 1964* requires people who sell Schedule 7 poisons to be 'fit and proper'. DoH considers pesticide retailers to be 'fit and proper' if they have an appropriate qualification or over five years retail experience. However, they have not defined what an appropriate qualification is and applicants are not required to provide evidence of their claims.

Schedule 7 pesticide retailers are typically rural outlets. Sales by retailers are restricted to primary producers, appropriately trained, authorised and licensed pest management technicians or approved permit holders with specific storage and safe handling requirements applying because of the toxicity of these chemicals.

Improvements could also be made to the licensing of aerial spraying pilots. DAFWA issues about 20 of these annual high-risk licences each year. DAFWA seeks evidence of qualifications for all new licences but last sought evidence of all pilots' stated qualifications in 2011. DAFWA does not regularly ask pilots to submit proof that they have the required insurance against property damage caused by their spraying operations.

Table 1 provides a summary of the numbers and different types of licences and permits, and responsible agencies. It also highlights the differences in the evidence required to support training, experience and other claims.

Licence/Permit Type	What does the licence allow	How many are there in WA	Is specific training required	Is evidence requested to support claims made on licence applications	Who is responsible for licensing
Pest management business	Providing pest management services to the public	821	No but must employ a pest management technician	Yes	DoH
Pest management technician	Applying pesticides for a pest management business	2 465	Yes	Yes	DoH
Schedule 7 pesticide retailer	Selling schedule 7 pesticides to permitted users	239	No	No	DoH
Aerial spraying pilot	Aerial application of pesticides	20	Yes	Irregularly	DAFWA
1080 and strychnine permit	Using 1080 or strychnine for approved baiting programs	1 000	For a pest management technician yes For a primary producer they must pass a simple test	Yes	DAFWA
<b>Total</b>		<b>4 545</b>			

**Table 1: Summary of pesticide licences and permits**

## Permits for dangerous baiting poisons such as 1080 and strychnine are well managed

DAFWA also issues about 1 000 permits each year for farmers and station owners to use 1080 baits and strychnine. Permit renewals are required for each new baiting program. Generally, this process is well managed.

DAFWA staff that have relevant training in 1080 and strychnine use assess each permit application. The assessments include:

- the timing of the baiting program
- where baits will be placed on a property to ensure they are not close to streams, housing and other properties
- signage placement to warn the public of the baits
- whether the applicants have completed training for 1080 and strychnine use and passed a simple test.

Permit holders can only source baits from the approved and licensed Schedule 7 retailer named on their permit. The Schedule 7 retailer is responsible for releasing the baits to the correct person, hence the need for the retailers to be 'fit and proper persons'.

We tested a sample of permit applications and found that all DAFWA's authorising officers were trained in 1080 and strychnine use. All sampled permit applications had risk assessments and the applicants had completed the required training.

DAFWA is looking at improving the efficiency of the licensing system by allowing more flexible permit conditions. Currently, any small change to an approved permit, such as the period of baiting or the person laying or supplying the baits, requires reassessment and reissuing of the permit. DAFWA considers this to be costly with no improvement in safety.

# Pesticide residues in food and the environment are generally at safe levels

## Food monitoring programs show national pesticide limits are not normally exceeded

The Commonwealth's broad based food monitoring programs consistently show that pesticide residues of foods produced in WA and exported out of the State are within accepted national levels. However, a much smaller State based testing program which focuses on higher risk foods sold only in WA has found greater instances of the national limits being exceeded.

There are a range of monitoring programs set up to detect pesticide and other residues in our food products. The Commonwealth Department of Agriculture conducts the National Residue Survey each year. They do this in partnership with the states to monitor pesticide residues, veterinary medicines and environmental contaminants in agricultural produce. The 2013-14 results are summarised in Table 2 below and show high levels of compliance with residue limits across all food types. A 100 per cent rate of compliance means no residues were found in the sampled foods.

Food Types	Samples	Compliance (per cent)
Meat	15 116	99.93
Fish	145	99.31
Eggs	202	100.00
Honey	167	100.00
Grains	6 137	99.20
Horticulture	1 087	99.50

Source: <http://www.agriculture.gov.au/ag-farm-food/food/nrs/nrs-results-publications/industry-brochures-2013-14/results-2013-14>

**Table 2: Summarised results of the National Residue Survey**

Where maximum residue limits are exceeded, the relevant State is informed and they trace the sample back to the farmer. DAFWA officers will visit and inspect the farm. They will ask the farmer to explain why their produce had unsafe levels of pesticide and what steps they have taken to prevent future contamination. If DAFWA is satisfied, then it will take no further action. DAFWA advised they aim to educate, rather than penalise. There are few breaches and they have never resulted in prosecution.

In addition to the national survey, there are a number of studies conducted across Australia and New Zealand to monitor chemical and heavy metal residues in sampled food products after meals are prepared or cooked. The most recent Food Standards Australia and New Zealand study from 2011 that examined agricultural and veterinary chemical residues confirmed the safety of Australian food.

At the state level, DoH conducts the Western Australian Food Monitoring Program (WA Program) every two years in conjunction with local councils. This program includes samples for chemical residues in selected fresh foods.

The WA Program was well planned and took account of results from other monitoring programs to avoid overlap in coverage and to identify potential high-risk produce. The planning also reviewed international research on pesticide residue monitoring to determine any risks from imported goods. However, agencies do not use results of the sampling to determine which pesticides or users to target in compliance checking programs.

The results of two of the last three WA Programs have shown pesticide residues at higher than accepted levels in up to 11 per cent of samples. DoH advised that the higher rates occur because it tested food more likely to have higher pesticide residues when compared to those crops sampled in national monitoring. For example, the WA Program tests crops regularly sprayed to prevent pest damage such as strawberries, apples, tomatoes and peas.

When a sample exceeds accepted pesticide residue limits, DoH informs the local government from where the sample originated. DoH relies on the local government to follow up with the grower and take any necessary action. We also noted that there is no other formal analysis or reporting of the results, industry is not provided any general feedback and results are not used to inform other compliance programs. A large number of the public submissions we received expressed concern about residues in foods. We note that the national results are publicly available, but the WA results are not.

The major supermarkets also conduct food safety audits and typically require suppliers to obtain food safety accreditation. This accreditation also ensures food safety for local consumers.

Produce sold through road-side stalls and farmers markets is less likely to have gone through pesticide residue monitoring. This is because it comes direct from the grower so is less likely to have gone through a quality assurance program or have been subject to random monitoring.

Organochlorine (OC) pesticides such as dieldrin and DDT were commonly used in WA until they were banned in the mid-1980s due to the detection of OC residues in export beef consignments sent to the United States. DAFWA actively manages 300 affected properties by restricting the agricultural activities that are permitted on those properties and ongoing monitoring. This work ensures that animals with unsafe OC residues do not enter the food chain.

## Water quality is a key indicator of appropriate pesticide use

The DoH water monitoring program confirmed that our drinking water sources are free from unsafe levels of pesticides. DoH receives detailed water quality monitoring reports every month from all water service providers across the State. They are notified of unsafe levels of pesticides within 24 hours. DoH advised they have never detected unsafe levels of pesticides in our drinking water. Our review of monitoring data for the last 18 months confirmed there had been no unsafe levels detected over that period. The highest level of detected pesticide in that period was less than or equal to 10 per cent of accepted levels.

These monitoring programs are designed to ensure drinking water is maintained within Australian Drinking Water Guidelines. The Advisory Committee for the Purity of Water is a non-statutory inter-departmental committee that operates under the chairmanship of DoH. The committee approves the monitoring programs and reviews the results of all drinking water monitoring activities undertaken throughout the State. All licensed drinking water providers are required to send the monthly results of their water quality monitoring programs to the committee.

## Most reported pesticide incidents take place in or around the home

The Poisons Information Centre (PIC) based at Sir Charles Gairdner Hospital provides 24 hour emergency advice on suspected poisonings. They recorded over 700 pesticide related incidents in 2014. Most of these were of a minor nature with people ringing as a precaution or seeking advice. However, PIC advised that at least 18 could have had a more serious outcome, five of these occurred in a workplace. The high number of incidents is a timely reminder of the need for people to be vigilant about storing pesticides safely and using them in accordance with label instructions.

Employers have not reported any deaths or injuries related to pesticides for at least the past five years. The pesticide regulations require employers to report any pesticide deaths or injuries to DoH. Any incident that has a significant public health impact should also be reported to DoH.

Regulations protect those whose work may regularly expose them to pesticides. Under the *Occupational Safety and Health Regulations 1996* employers are required to test those employees who are consistently exposed to and/or at risk of adverse health effects from specific pesticides such as organophosphates and arsenic.

The WorkSafe Commissioner must be notified of the health test results for these high-risk workers. WorkSafe advised us that the Commissioner had been notified of 10 people in the previous 14 months to April 2015 that were in high-risk occupations. Results of baseline monitoring for them indicated no health impacts from pesticide exposure.

# Gaps exist in the regime for checking that pesticides are managed safely

## WorkSafe checks workplace use of hazardous substances

In the last 10 years, WorkSafe have run two proactive inspection campaigns that focused on pesticide manufacturers and building pest control services. The most recent campaign was in 2011. WorkSafe determines the timing and priority of proactive inspection campaigns as part of their strategic planning process. They use relevant data including the number of reported incidents in an industry to inform their planning. The focus of these inspections is safe storage and handling of hazardous substances.

Pesticides need to be stored and used in accordance with label instructions. There are also specific requirements for transport, storage, warning signs and first aid equipment where there are large quantities of pesticides present. These workplaces can include farms, metropolitan or rural supply stores or pest management businesses and vehicles.

WorkSafe inspections include checking that:

- all hazardous substances have been identified and are appropriately labelled
- workers exposed to or working with the substances have been given appropriate information, instruction and training, and records of this are kept
- adequate protective handling and safety equipment is available.

In the 2011 campaign, WorkSafe visited a sample of 40 pest control firms from the approximately 820 registered to operate in the metropolitan and regional areas. The campaign concluded that most operators were managing workplace risks well. Nevertheless, the issuing of 41 improvement notices was evidence of the need for improved understanding of the risks relating to hazardous substances.

In addition to these proactive campaigns, WorkSafe does reactive inspections based on complaints. They also maintain a database of all inspections and the outcomes of inspections. The number of reactive investigations and notices issued for January 2014 to March 2015 is shown in Table 3 below.

Industry	Investigations	Notices Issued
Pesticide Manufacturing	8	18 (from 3 of the 8 investigated)
Building Pest Control Services	10	5 (from 3 of the 10 investigated)

**Table 3: WorkSafe investigations and notices for pest related industries**

## The required checks of safe work practices by other agencies are rarely done

DoH and DAFWA were failing to collect information or conduct some checks that are required under various legislation.

DoH is required to conduct regular inspections of Schedule 7 pesticide retailers. It may also inspect pest management businesses. DAFWA is required to monitor compliance with the conditions of 1080 baiting and strychnine programs.

We found that the pesticide safety branch of DoH inspects pest management businesses when they are first registered but rarely after that. DoH inspections focus on safe storage and appropriate protective equipment, first aid and signage for pesticides. These inspections are similar to those conducted by WorkSafe, and to ensure good use of resources these could be better coordinated. DoH is also authorised to collect records of sale and use of pesticides, but only does so in the event of incidents where there has been an alleged human health exposure.

Local government environmental health officers conduct business inspections on behalf of DoH outside the metropolitan area. Inspections are typically vehicle inspections, because many small businesses store their pesticides on vehicles. DoH advised that in the last few years they have rarely inspected larger pest management businesses to ensure compliance with regulations due to their limited resources. Public submissions also raised this as an area of concern.

DoH is required to conduct regular audits of Schedule 7 pesticide retailers under the poisons regulations. The number of audits required is not defined. We found that the pharmaceutical branch of DoH rarely undertakes inspections of the Schedule 7 pesticide retailers they license. A sample of 20 of the 239 licensed retailers showed two inspections carried out in 1997.

DAFWA does not monitor compliance with the permit conditions of 1080 baiting and strychnine programs. DAFWA is required to monitor compliance of at least three per cent of permits each year and report these to DoH. This would mean auditing compliance of 30 of the current 1000 permits.

DAFWA is required to keep an incident register for all 'off-target' deaths relating to 1080 and strychnine. An off-target death is when an animal other than the intended pest is killed. The register of reported incidents shows 98 incidents of off-target poisonings in the last 10 years. These incidents resulted in 221 animals being killed, mainly domestic dogs as a result of tourists or travellers letting their dogs roam on farms or stations.

DAFWA advised that the most common complaint following a domestic dog death is that people did not see any signs warning that 1080 baits were being used. This does not seem surprising given the size of some properties where baiting occurs. DAFWA says that a lack of signage is also hard to prove because they often do not have staff available to inspect the property or existing signage in a timely manner. Monitoring compliance with permit conditions would enable DAFWA to proactively ensure signage and other requirements are met.

DAFWA is required under legislation to collect aerial spraying records from pilots but does not do so. DAFWA considers this requirement unnecessary because pilots are required to keep records and make them available to the Director General on request. They intend to amend the legislation to remove the requirement to collect spraying records. Their records show five incidents in the last nine years. Incidents and complaints typically relate to spray drift and not informing neighbours.

Checks to ensure crop-spraying permit holders comply with permit conditions are also not done. DAFWA issues permits to allow spraying of pesticides in restricted areas near grape and tomato crops. These are the only crops that have been specified as sensitive and for which restricted spraying areas apply. Conditions of these permits typically include spraying only under certain weather conditions. DAFWA advised this legislation is outdated and unnecessary if people follow label instructions and apply good practice. They are working to repeal the relevant legislation, and we consider this is appropriate.

## Better sharing of information would improve agency compliance programs

There is good informal communication between the key agencies relating to various issues and incidents and the Pesticide Advisory Committee (PeAC) provides a good communication forum for the various agencies involved in pesticide regulation. However, there is lack of formal coordinated information sharing to identify and address regulatory gaps that inevitably arise across the multiple agencies.

The PeAC provides a forum where the agencies can update each other on their work and raise issues to be addressed. We attended one of these meetings and saw an agreement made for the Department of Environment Regulation to take the lead on monitoring cleaning and recycling of pesticide containers. This was a good use of the forum, as agencies had identified a growing number of these unlicensed businesses in the metropolitan area.

Despite some positives from the forum, PeAC could strengthen its meeting agendas by adding in the following areas:

- identify and agree critical risk areas or regulatory gaps in the pesticide industry
- recommend appropriate controls to address these risks and gaps
- develop a coordinated, proactive, risk based compliance checking program.

More formal processes for sharing information, would help to ensure the agencies are not missing opportunities to leverage off each other's work and are making best use of their limited resources. It would also assist agencies in addressing the types of concerns raised by the public in their submissions to us during the audit. We noted for example that WorkSafe could use their proactive work inspection programs to assess Schedule 7 pesticide retailers. Similarly, both DoH and DAFWA may collect pesticide supply, sales and use information but often only do so when investigating complaints and incidents.

Periodic collection of this information and sharing through PeAC would assist the planning of monitoring and compliance programs. It is not easy to get a clear picture of the total number of pesticide incidents because there is no centralised record of pesticide incidents and complaints. Each agency maintains its own records relevant to their regulatory responsibilities. The case study below shows the relatively small number of incidents in a year. Sharing of this information at PeAC would enable agencies to determine if changes to their processes are necessary.

The Department of Environment Regulation dealt with 4001 complaints and incidents in the last five years. Of these, 35 were pesticide related incidents.

DoH responds to incidents when there is a potential threat to human health. It has recorded three incidents in the last five years. These included:

- 2009 — poisoning of birds after being fed insecticide contaminated grain
- 2012 — headaches, eye, ear and throat irritation of residents in a semi rural area from fumes caused by the incorrect application of a soil fumigant on a nearby market garden
- 2013 — 14 horses killed after being fed grain that had not been withheld long enough after fumigation with a Schedule 7 pesticide to treat weevils

It was clear from the records kept of these incidents that each of the agencies responded appropriately. However, in the 2012 incident, DoH advised they were not notified immediately because of a delay in residents' reactions to the fumes. DoH considers there needs to be better understanding by agencies involved in disaster response of the potentially serious nature of pesticide spills or misapplication.

**Figure 1: The number of pesticide complaints and incidents is relatively small however they can be serious**

## Appendix 1: Agencies and their role in regulation of pesticides in Western Australia

	Agency	Responsibility
Primarily responsible	Commonwealth Australian Pesticides and Veterinary Medicines Authority (APVMA)	<ul style="list-style-type: none"> <li>Regulates the manufacture, importation, sale and supply of agricultural chemicals (pesticides)</li> <li>Determines the safe conditions for use of these chemicals</li> <li>Manages export plant/animal product residue monitoring and testing programs for agricultural chemicals (pesticides)</li> </ul>
	Department of Health (WA)	<ul style="list-style-type: none"> <li>Regulates the use of agricultural chemicals at and after the point of sale (for example: storage, transport, and use in accordance with the label)</li> <li>Licenses pest management, technicians and registers pest management businesses, licenses Schedule 7 pesticide retailers</li> <li>Responsible for testing fruit and vegetables for chemical residues in excess of prescribed limits and for directing or taking corrective action</li> </ul>
	Department of Agriculture and Food (WA)	<ul style="list-style-type: none"> <li>Authorises the powers of the APVMA and its officers (under the <i>Commonwealth Act</i>) to apply in WA</li> <li>Undertakes traceback investigations on plant/animal product pesticide residue detections in excess of prescribed limits and take regulatory action where appropriate</li> <li>Issues permits for the supply and use of 1080 and strychnine baits</li> <li>Certifies aerial pesticide spraying activities</li> <li>Regulates pesticide spraying to protect certain nearby crops from harmful spray drift</li> </ul>
Peripheral responsibility	Department of Mines and Petroleum	Dangerous goods safety
	Department of Commerce (WorkSafe)	Occupational safety and health
	Department of Environment Regulation	Pollution incidents
	Department of Water	Water contamination
	Food Standards Australia New Zealand	Monitoring pesticide residue in food
	Local governments	Safety of food for sale outside of the agricultural settings







## Auditor General's Reports

Report Number	Reports	Date Tabled
13	Managing the Accuracy of Leave Records	30 June 2015
12	Opinions on Ministerial Notifications	25 June 2015
11	Regulation of Training Organisations	24 June 2015
10	Management of Adults on Bail	10 June 2015
9	Opinions on Ministerial Notifications	4 June 2015
8	Delivering Essential Services to Remote Aboriginal Communities	6 May 2015
7	Audit Results Report — Annual 2014 Financial Audits	6 May 2015
6	Managing and Monitoring Motor Vehicle Usage	29 April 2015
5	Official Public Sector Air Travel	29 April 2015
4	SIHI: District Medical Workforce Investment Program	23 April 2015
3	Asbestos Management in Public Sector Agencies	22 April 2015
2	Main Roads Projects to Address Traffic Congestion	25 March 2015
1	Regulation of Real Estate and Settlement Agents	18 February 2015

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