



## **Pesticide residues in strawberries – is our food safe?**

Recent research conducted by consumer organisation Choice found pesticide residues on strawberries. This finding prompted significant discussion in the media as commentators provided perspectives on its significance.

To provide a regulatory perspective the Australian Pesticides and Veterinary Medicines Authority (APVMA) offers the following comments.

### **Pesticide residues: some questions and answers**

Australians are naturally concerned about the safety of the food they eat.

We want to be confident that our food is produced to a high standard and in accordance with strict regulations. Above all, we want our food to be safe.

Therefore the presence of pesticide residues in food is an important issue for Australian consumers.

But what does ‘pesticide residues’ actually mean? Who decides what’s safe? How is our food monitored for pesticide residues?

This fact sheet aims to answer these questions and to explain the processes and procedures in place in Australia to ensure that our food is safe.

### **What are pesticide residues?**

Farmers often use pesticides to help control pests and diseases. This improves productivity and ensures that the food they produce meets consumer expectations in terms of quality, consistency, year-round availability, and safety. The use of these products is regulated by State and Federal laws.

Depending on what it is and the way it is used, small amounts of some pesticides can sometimes be found in food. These amounts are referred to as pesticide residues.

### **What level of pesticide residue is in my food?**

Often there are none, but the detection of residues is not considered unusual in conventional farming systems where pesticides have been used.

The highest concentration of a particular pesticide residue that should occur in food is referred to as the maximum residue limit (MRL). The MRL is also the legally permitted limit, and is the level against which Government authorities regulate.

### **Are pesticide residues harmful?**

While everyone would prefer there to be no pesticide residues in our food, their presence does not mean that food is unsafe.

Whether or not a residue is harmful depends on the amount of chemical residue in the food, the chemical nature of that residue, and the amount of that particular food item consumed by an individual.

Any residues in food should remain below the limits established by regulatory authorities. Obviously food items should not contain any residue of a pesticide that is not approved for use on a particular crop or food-producing animal from which the food item was produced.

### **Who determines a legal limit and how is it done?**

When a new pesticide is proposed for use on a particular crop, levels of residues are measured in experimental trials with the pesticide applied at a rate necessary to control the pest. This information forms the basis for determining the MRL.

Before setting an MRL, the potential dietary intake of that pesticide is compared with acceptable intake limits. These intake limits are set by Australian government scientists using established methodology and the best available scientific information on the toxicity of the chemical. This approach is very conservative. In fact, it is standard practice to apply generous safety margins when setting these dietary intake limits.

The comparison of residues in food with the dietary intake limit ensures that MRLs are set at a level that is well below the level that may be harmful. In making these comparisons, the dietary exposure of children and adults are considered separately. This ensures that all population groups are protected. It is well known that children have different eating patterns to adults and for that reason the exposure of children to pesticides is assessed separately. .

### **How are pesticide residues in food regulated?**

When it comes to regulating pesticide residues, it's a case of 'guilty until proven innocent'. In other words, a chemical must first be proven to be safe at a certain limit before it can be approved for use in food production.

Food Standards Australia New Zealand (FSANZ) is responsible for administering food safety legislation in Australia. When MRLs set by the APVMA are adopted into the Food Standards Code, MRLs become the legal limit for pesticide residues.

Extensive monitoring of pesticide residues takes place to ensure that food produced in Australia is safe and meets legal standards.

Monitoring occurs at a number of levels. All Australian States and Territories have monitoring programs in place and many food producers and retailers also apply their own monitoring and auditing systems in addition to government testing.

The Australian Government also conducts a National Residue Survey that monitors Australian food produced for both domestic and export markets.

Having multiple points of monitoring substantially reduces the potential for the sale of food containing pesticide residues above the legal limit.

### **What happens if residues in food exceed the legal limits? Is it safe?**

It is rare to find food in Australia that contains residues that exceeds the MRL.

If it does happen, however, Government regulators have processes and powers in place to quickly remove the product from sale, trace it back to its point of origin and take action against the producer.

In most cases where residues are above the MRL it does not necessarily mean that food is unsafe. It often indicates that proper production practices have not been followed and may require further investigation by State authorities. In this way the MRL is used as a tool to determine whether growers are using pesticides in the way they were approved to be used.

### **How can I find out more?**

More detailed information on residues can be found on the APVMA website at:  
[www.apvma.gov.au/residues/residue\\_questions\\_and\\_answers.shtml](http://www.apvma.gov.au/residues/residue_questions_and_answers.shtml)

You can find out more about food safety and chemical residues by visiting the website of the following Australian Government authorities that each play a part in ensuring your food is safe:

[www.foodstandards.gov.au](http://www.foodstandards.gov.au) (Food Standards Australia New Zealand)

[www.daff.gov.au](http://www.daff.gov.au) (Department of Agriculture, Fisheries and Forestry)

[www.health.gov.au](http://www.health.gov.au) (Department of Health and Ageing)