



Drought and Dairy Food Safety

During periods of drought when stock feed is in short supply and high in price, there is greater demand for alternative feed sources for dairy cattle.

Although a wide variety of novel stock feed is available to farmers, feeds of this type generally have poorer nutritional value compared to conventional feed sources. Novel feeds also have a higher risk of being contaminated with chemicals or causing unexpected changes in the characteristics of milk.

Agricultural Chemicals used on Novel Feeds

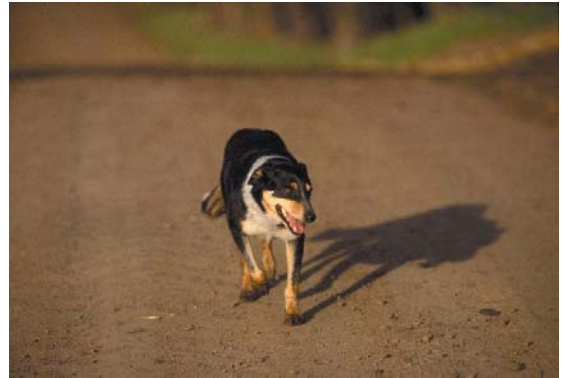
Agricultural chemicals are widely used in grain, fruit and vegetable crop production. All agricultural chemicals are registered for use by the Australian Pesticides and Veterinary Medicines Authority (APVMA).

Before being registered for sale, agricultural and veterinary chemical products must go through a rigorous risk assessment process to ensure that they are effective and safe for people, animals and the environment.

All chemicals used in crop production must be used in accordance with the label instructions to minimise the risk of residues. Withholding periods are designed to ensure that chemical residues are eliminated from edible parts of plants at the time of harvesting. When withholding periods are observed, there is a very low risk of animal products becoming contaminated.

However, the risk of contamination increases when livestock are fed plant waste that was not initially intended for human or animal consumption. Chemical residues can concentrate in certain parts of the plant normally considered to be waste, such as the skin of fruits or vegetables or the outer leaves of vegetable or grain crops. In addition to this, certain chemicals registered for use on novel stock feeds have specific label statements prohibiting the feeding of treated crop or crop by-products to stock.

Despite the correct use of chemicals prior to harvesting and during processing, transport or storage of grain, fruit and vegetable crops, when plant waste from these sources is fed to stock it may present an increased residue risk.



Commodity Vendor Declarations

It is requirement of farm Food Safety Programs (FSP) that a commodity vendor declaration, advising the chemical residue status of the feed being supplied, be obtained from the stockfeed supplier. This allows the dairy farmer to have some assurance that milk produced by dairy cattle that consume this feed will not be contaminated with chemical residues.

The questions that a commodity vendor declaration requires to be answered to help assess any potential risks posed by stockfeed include:

- What is the chemical use history of the potential stockfeed;
- Have label requirements been complied with;
- Have withhold periods been adhered to; and
- Is the product suitable for use as a stockfeed.

Although the onus is on the stock feed supplier not to sell contaminated products for stock feed, if the chemical residue status cannot be determined, then it is best not to feed it to dairy cattle.

Stock Water

Care should be taken to ensure that water is obtained from uncontaminated sources. It should be noted that as water sources dry up, residual chemicals may become more concentrated.

In periods when water courses slow, the prevalence of blue-green algae blooms increases. Whilst there is no conclusive evidence that blue-green algae toxins carry through to the milk, the health and wellbeing of dairy cattle may be jeopardised by the

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consumption of water contaminated with blue-green algae or their toxins. In such cases, farmers are advised to take precautionary measures to ensure that their stock receive water from uncontaminated sources⁴.

Properties of Milk

There have been instances where the properties of milk have altered when dairy cattle are fed novel feedstuffs during periods of drought. If the properties of milk alter, then this may impact on the effectiveness of the pasteurisation process undertaken by dairy manufacturers.

The use of cotton trash as a stockfeed was shown to cause excessive foaming in milk as it was pumped around the manufacturing premises. In instances where batch pasteurisation was the only means to reduce bacterial numbers, the foam that collected on the surface of the milk in the batch tank was substantial, with ineffective pasteurisation the result.

Dairy manufacturers must ensure adequate pasteurisation occurs in the event that the properties of milk are altered.

Milk may also take on flavour taints when dairy cattle are fed some types of novel stock feeds.

References

1. Bennet, G. Agriculture Notes. Feeding crop waste to livestock and the risk of chemical residues. AG0469. Department of Primary Industries, Victoria. August 2002.
2. Salter, C. Alternative feeds for Dairy Cows. Primary Industries and Resource SA. 2002.
3. Byrne, D. Dangers in feeding waste material to livestock. Agnote DAI-181. NSW Agriculture. November 2004.
4. Thomas, D. and Martinelli, A. Landcare Notes. Has your dam got a blue-green algae problem? LC0098 Department of Natural Resources and Environment, Victoria. April 1999.



Further Information

Other Dairy Food Safety Notes on dairy food safety topics are available.

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