



Dust

What is the issue?

The dust generated by cattle feed can be hazardous if inhaled by people or cows.

Why is it an issue?

Inhaling the light dust generated by cattle feed can cause health problems in people and animals, while the dust in cattle yards can carry diseases such as Q fever (see information under Zoonoses).

The accumulation of heavier dust around the dairy may affect the way equipment operates and can become a fire hazard, particularly in feed sheds. If ignited, airborne dust in a shed can explode.

Many older farm buildings may contain asbestos and its dust can have a serious effect on human health (see information on Asbestos).

What are the consequences of ignoring it?

Regularly inhaling dust can reduce a person's lung function and cause health problems such as hay fever, asthma and 'farmer's lung'.

Farmer's lung is an established dust-related health problem, particularly among people exposed to mouldy grain, hay and straw. It is common in wet weather and on dairy farms that use automated equipment to handle hay and feed. The build-up of dust in the lungs causes a general feeling of being unwell and allergic reactions. Long-term effects include lung damage, physical disability and even death.

As well as being a hazard to people, dust can cause respiratory problems in cows.

A build-up of dust in the equipment used in the dairy can cause them to break down or run less efficiently. Electrical equipment can also provide the ignition source needed to cause a dust fire or, in extreme cases, an explosion.

Q fever, which can survive in cattle yard dust, is a bacteria that causes a condition like a bad case of the 'flu, with fever, sweating, nausea and vomiting for 7-10 days. In extreme cases, people can experience the symptoms for months or years. The extreme tiredness and weakness experienced after exercise, muscle pain, headaches, fever and depression can make work impossible.

How safe is your dairy now?

Check the amount of airborne dust and its sources around where people are working, both in the dairy and feed shed. Also check the amount of dust that has built up around electrical equipment and in the feed shed.

In the feed shed, check for signs of where a fire could start, e.g. electrical switches, and unsealed lights and hot bearings; there may already be evidence of burnt dust.

What can be done right now?

Ensure dry powder fire extinguishers are mounted in the dairy and feed shed in case of electrical fires.

During regular equipment maintenance, wash or remove accumulated dust, especially where there is a risk of fire and the chance of an explosion.



Safety in the Dairy - Hazard sheet

Using dust masks fitted with P1 or P2 filters will reduce personal exposure when cleaning up dust or working in the feed shed, particularly when crushing and adding additives.

If using these masks, you need to know whether you have the type with disposable filters or those that must be discarded completely after use. Disposable masks should have two straps for closer fitting. Your local safety equipment supplier will be able to provide more information.

More generally, reduce dust in cattle yards and on tracks near the dairy by using water sprinklers.

What are the next steps?

Switching to low-dust feed, particularly pellets, will help reduce dust. If this is not possible, try adding a dust suppressant, such as canola or vegetable oil.

Oil should be added to grain using a pump and measuring device, as adding too much oil may clog up augers.

Changing the way feed is delivered in the dairy can make a difference to dust levels. For instance, try enclosing the feed system as much as possible and ensuring that the drop tubes into the feed troughs are as long as practical.

What you should consider in your longer term plans?

Increased ventilation can better disperse dust hazards and has the added advantage of making the dairy a more comfortable place to work in during hot weather.

Move dusty jobs, such as grain crushing, away from the main working area. Not only will this cut down the dust in the air, it will reduce noise levels in the dairy.

A regular lung function check for asthmatics, smokers or overweight people who are often exposed to dust is a way of detecting health problems earlier.

What actions are not optional?

A fire extinguisher equal to or greater than a 2A20BE (e.g. a 2.3kg ABE dry chemical) must be mounted in an easily accessible position no more than 1.5m from an internal electrical switchboard in the dairy or feed shed.

Where you can go for more information

Planning dairy feed systems	
Dairy feeding system – herringbone	www.cowtime.com.au
Dairy feeding system – rotary	www.cowtime.com.au
Farmers lung: what is it?	www.ccohs.ca
Chubb fire safety	
Fire extinguisher selection	www.chubb.com.au