

# AG5

## COSHH essentials for farmers

This information will help employers, the self-employed and contractors comply with the Control of Substances Hazardous to Health Regulations 2002 (COSHH), as amended, to control exposure and protect workers' health.

It is also useful for trade union safety representatives.

This sheet describes good practice using dust extraction.

It covers the key points you need to follow to help reduce exposure to an adequate level.

It is important to follow all the points, or use equally effective measures.

### Main points

- High dust levels are produced when moving grain and seed.
- Keep exposure as low as possible using all the controls in this sheet.
- Health surveillance is usually needed - see sheet G402.

# Seed cleaning (fixed and mobile plant)

## Control approach 2 Engineering control

### Hazard

- ✓ Dust is produced when processing grain and seed. The dust contains bacteria, fungi and insect residues, and can cause lung diseases such as asthma and farmer's lung.
- ✓ Control exposure to stop occupational lung diseases developing - this means short-term as well as long-term exposure.
- ✓ When all controls are applied properly, less than 10 mg/m<sup>3</sup> grain dust is usually achievable (based on an 8-hour time weighted average).
- ✓ If an individual develops occupational asthma, avoid further exposure.

### Access and premises

- ✓ Only allow access to trained people. Keep everyone else away.
- ✓ If possible, locate mobile plant outside.

### Equipment and procedures

- ✓ Provide a good standard of general ventilation indoors; 5-10 air changes per hour, with a through draught.
- ✓ Can you turn on the equipment and leave the area?
- ✓ Move seed gently; don't throw or dump it.
- ✓ Roll up empty bags with the open end in a dust extraction zone, or do this outside.
- ✓ For seed dressing products, follow the instructions on the product label.
- ✓ Consult a qualified ventilation engineer to design new control systems or to update current controls. See sheet G406.

### Fixed machines:

- ✓ Fit the machine hopper, cleaning head and bagging-off point with dust extraction.
- ✓ If not bagging, discharge cleaned seed into a covered storage container through a sock.

### Mobile machines:

- ✓ Enclose and extract the seed cleaner head. Fit the bagging-off point with dust extraction.
- ✓ If not bagging, discharge cleaned seed into a covered storage container through a sock.

### All machines:

- ✓ You need an inward air speed between 1 and 2.5 metres per second into the openings.

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- ✓ Fit a manometer or pressure gauge near the extraction point, to show that the system is working properly.
  - ✓ Mark the acceptable range of readings.
  - ✓ Keep extraction ducts short and simple - avoid long sections of flexible duct.
  - ✓ If possible, discharge cleaned, extracted air to a safe place outside, away from doors, windows and air inlets.

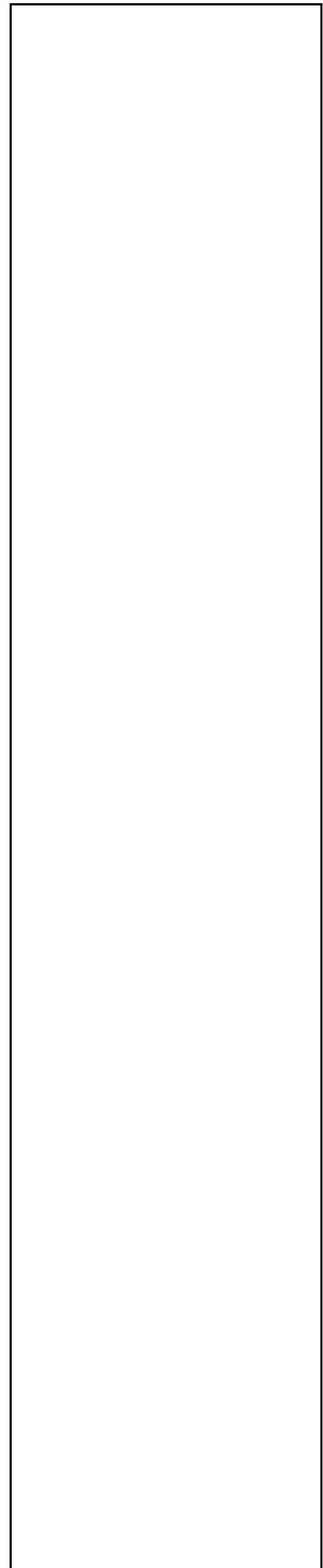
**Caution: Some dusts (eg from barley) are very irritating to skin.**

### **Respiratory Protective Equipment (RPE)**

- ✓ RPE should not be needed if the extraction works properly and dust enclosures are sound.
- ✓ RPE is needed for maintenance and cleaning inside the machinery.
- ✓ Powered or air-fed RPE is more comfortable to wear.
- ✓ Select RPE that suits the wearer, the job and the work environment.
- ✓ Use RPE with an assigned protection factor of at least 10. See sheet R2.
- ✓ Disposable RPE, type FFP2, is acceptable. Don't use 'nuisance dust' masks.
- ✓ Make sure that RPE fits properly - get advice from your supplier or read the instructions on the box.
- ✓ Train workers to check their RPE works properly before use.
- ✓ Replace RPE filters as recommended by the supplier. Throw away disposable RPE at the end of the day, or sooner if heavily soiled.
- ✓ Keep RPE clean and store it away from dust.

### **Maintenance, examination and testing**

- ✓ Follow instructions in maintenance manuals - keep equipment in effective and efficient working order.
- ✓ Every time you use the equipment, look for signs of damage, eg to ducts and seals. Noisy or vibrating fans indicate a problem.
- ✓ Check that dust extraction and gauges work properly.
- ✓ If the extraction is faulty, use RPE until it is repaired and for carrying out repairs.
- ✓ You need to know the manufacturer's specifications to check the extraction's performance.
- ✓ If this information isn't available, hire a competent ventilation engineer to determine the performance needed for effective control.
- ✓ The engineer's report must show the target extraction rates.
- ✓ Keep this information in your testing log-book.
- ✓ Get a competent ventilation engineer to examine the extraction thoroughly and test its performance - at least once every 14 months. See the HSE publication HSG54 - see 'Further information'.
- ✓ Examine and test non-disposable RPE thoroughly at least once every three months.
- ✓ Keep records of all examinations and tests for at least five years.
- ✓ Review records - failure patterns show where preventive maintenance is needed.



### Cleaning and housekeeping

- ✓ At least once a day, clear up waste.
- ✓ Use gentle shovelling and a Type H vacuum cleaner fitted with a HEPA filter, or wet clean to avoid stirring up dust.
- ✓ Store empty bags outside the workroom.  
**Caution: Don't use a brush or compressed air, and never use compressed air to remove dust from clothing.**

### Health surveillance

- ✓ There is a chance of asthma developing, even with good controls in place. Use health surveillance - see Sheet G402.
- ✓ Ask an occupational physician for advice - see 'Useful links'

### Training and supervision

- ✓ Tell workers that grain and seed dust can cause lung diseases including asthma. Show them this sheet.
- ✓ Working in the right way and using the controls correctly is important for exposure control. Train and supervise workers. See sheet AG0.
- ✓ Ensure that health surveillance is carried out on everyone that needs it.

### Further information

- *Maintenance, examination and testing of local exhaust ventilation* HSG54 (Second edition) HSE Books 1998 ISBN 0 7176 1485 9
- *Preventing asthma at work. How to control respiratory sensitisers* L55 HSE Books 1994 ISBN 0 7176 0661 9
- *Farmer's lung* Agricultural Safety Leaflet AS5 HSE Books 1995
- *Controlling grain dust on farms* Agriculture Information Sheet AIS3(rev) HSE Books 1996
- *Removing waste from a dust extraction unit* Sheet G103 Available web-only at: [www.coshh-essentials.org.uk/assets/live/G103.pdf](http://www.coshh-essentials.org.uk/assets/live/G103.pdf)
- See [www.hse.gov.uk/pubns/agindex.htm](http://www.hse.gov.uk/pubns/agindex.htm) for other advice on health and safety risks in agriculture.

### Useful links

- For information about health and safety, or to report inconsistencies or inaccuracies in this guidance, visit [www.hse.gov.uk/](http://www.hse.gov.uk/). You can view HSE guidance online and order priced publications from the website. HSE priced publications are also available from bookshops.
- Contact the British Occupational Hygiene Society (BOHS) on 01332 298101 or at [www.bohs.org](http://www.bohs.org) for lists of qualified hygienists who can help you.

This document is available at: [www.hse.gov.uk/pubns/guidance/](http://www.hse.gov.uk/pubns/guidance/) and [www.hse.gov.uk/coshh/essentials/](http://www.hse.gov.uk/coshh/essentials/)

**This document contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.**

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### Employee checklist

- Do you know how to use the dust controls properly?
- Is the extraction working?
- Look for signs of leaks, wear and damage.
- If you find any problems, get them fixed. Don't just carry on working.
- Co-operate with health surveillance.