

Shhh - hearing in a farming environment

Noise induced hearing loss is a major problem on Australian farms, affecting two out of every three farmers. Farmers are particularly at risk due to the unique sources of sound they are exposed to during farming tasks, including both prolonged exposure to noise and immediate sudden, loud noise.

Many farming tasks are hazardous to hearing such as tractors, shearing, chainsaws and workshop tools. The prevalence of hearing loss in Australia is excessive with 1 in 3 over 50 years of age reporting a hearing loss; 1 in 2 over 60 and 3 in 4 over 70.

Exposure to noise results in a destruction of the hair cells in the ear which cannot be replaced. As noise begins to destroy these hair cells, people have trouble hearing certain soft speech sounds such as t, v, f, sh, s sounds. In particular people may have trouble following conversation in rooms with background noise which can lead to misunderstanding and missed communication.

How do we measure noise?

A decibel is the unit of measurement used to measure sound.

- 85 dB is the maximum permitted level of noise you can be exposed to over an 8 hour period. However, this is not a 'no damage' level, but simply an acceptable risk for most of the population.
- 75 dB is the standard level of noise you can be exposed to daily with negligible risk.

Table 1. How much noise is too much in one day?

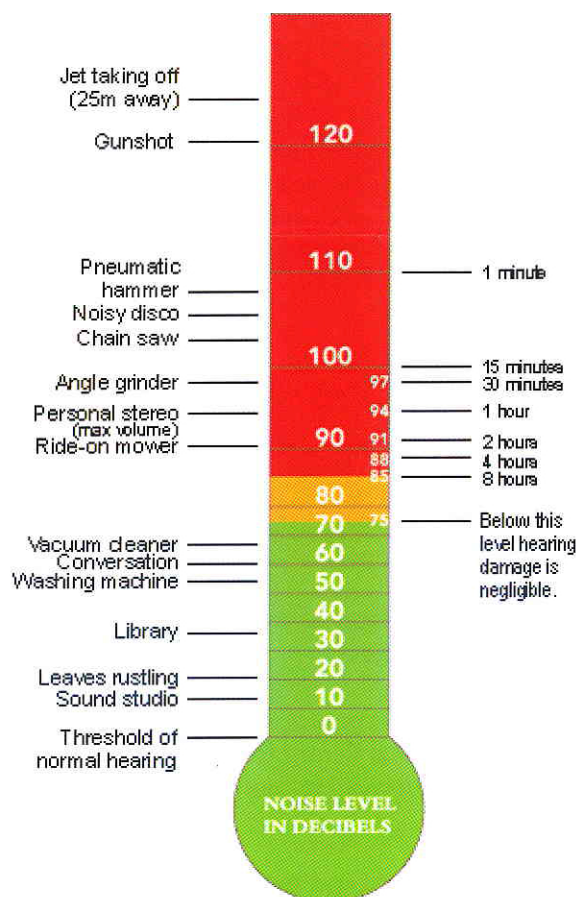
Machine	Decibels	Time
Chainsaw	110 dB	1 min
Impact driver	106 dB	4 mins
Circular saw	100 dB	15 mins
Power planer	97 dB	30 mins
Angle grinder	94 dB	1 hr
Disc sander	91 dB	2 hrs
Auger	88 dB	4 hrs
Tractor	85 dB	8 hrs
4-wheel motorbike	82 dB	16 hrs

Note: Estimates only, the noise levels of individual machinery will vary.

It is also necessary to take into consideration how long a certain task will be performed. For example 85 dB is

a safe level of exposure for 8 hours. Each 3dB increase doubles the exposure of noise exposure and the acceptable risk exposure time is halved.

Noises encountered by farmers differ greatly depending on the type of farming task undertaken. Shearing has been found to be one of the loudest tasks with the elbow joint of the shearing down piece recording 93.1dB. Attaching the suction cups in rotary dairy comes in at 96.3 dB, and weighing and drenching cattle – 88.3 dB. Have a look at the attached noise thermometer to see where some farming tasks compare to other daily tasks.



The above noise levels are approximate and should only be taken as a guide

Figure 1. Noise level barometer

How can you protect your hearing?

Nothing can restore your hearing once damage is done. But it is preventable. If you need to raise your voice to be heard at arm's length it is too loud and is probably doing you damage.

The best way to avoid hearing loss is to incorporate the following tips into your practice:

1. Identify noisy tasks
2. Reduce equipment noise
3. Limit your exposure to loud noise
4. Limit the number of noisy jobs done per day
5. Make hearing protection convenient
6. Wear hearing protection correctly.

Raising awareness

'Shhh hearing in a farming environment' is a research project being undertaken by Deakin University, National Acoustics laboratory and Australian National University through the National Centre for Farmer Health which aims to educate farmers that a few minutes exposure to loud noise (such as a chainsaw) is all it can take to reach your daily maximum noise exposure and consequently affect your hearing loss.

Farmers can request a farm noise audit in order to identify which farm machinery and daily tasks are putting them at risk of hearing loss. Farmers are asked to wear a dosimeter on their collar for a day to record their noise exposure and keep a diary of the tasks they complete throughout the day.

Farmers are then given a detailed report of their noise exposure, which lists simple noise control measures they can take, such as identifying which activities they should wear hearing protection for and offering recommended usage times for noisy activities.



Source: Australian hearing website,
<http://www.hearing.com.au>, accessed
2 April 2012.

Figure 2. A noise dosimeter worn on the lapel by farmers in the Shhh hearing project.

For further information contact Heidi Mason, Research Assistant at the National Centre for Farmer Health on 03 5551 8533 or go to www.farmerhealth.org.au

Acknowledgement:

Sue Brumby, National Centre for Farmer Health

Did you know?

RBA reports on bank lending on a quarterly basis. Figure 1 illustrates the lending pattern by lending portfolio over the past 10 years for Agriculture.

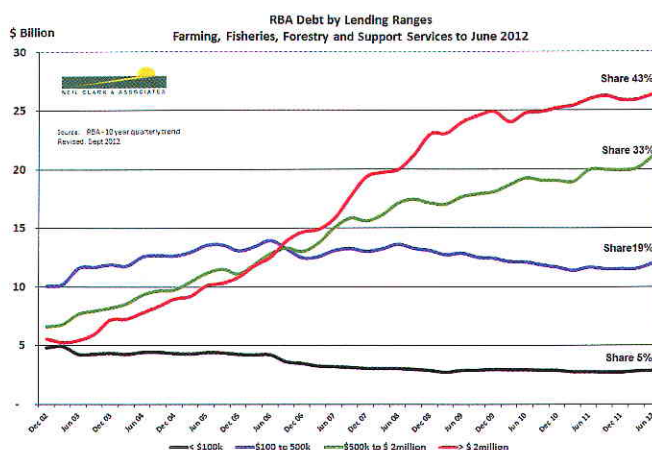


Figure 1. RBA Statistics

At June 2012, portfolios listed as greater than \$2 million accounted for loans of \$26 billion, 43% of all bank lending. Most of this lending prior to the GFC was dedicated to wealth creation by larger farmers. In the years leading up to the GFC year on year lending growth was in the range of 8% and 17%. Land values were rising, so equity levels were good and money was plentiful.

Since the GFC lending has been largely devoted to funding the trading account as farmers suffered from production losses. The portfolio \$500,000 to \$2 million has grown steadily and lenders here have been adding land to their existing holdings. The lower two portfolios are in decline as smaller farmers sell their land and exit the industry. In fact there are 19,000 fewer farming enterprises in 2011 compared with 2006.

Acknowledgement:

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Diary dates: GRDC Farm Business Updates

GRDC Farm Business Updates for Advisers

Register online at www.orm.com.au

Location	Date	Venue
Adelaide, SA	Tuesday 20th November	Adelaide Convention Centre, North Terrace, Adelaide



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