# Pre-sowing control of house mice (*Mus domesticus*) using zinc phosphide: efficacy and potential non-target effects

*Peter R. Brown, Lisa K. Chambers and Grant R. Singleton*

## Abstract

Zinc phosphide was tested on populations of house mice in cereal stubble and pasture paddocks in the Central Mallee region of Victoria, in Autumn 1997. There were three replicates of two application methods: aerial and ground (perimeter) baiting. The response of mouse populations to baiting was monitored by live-trapping; estimates of population size and survivorship were compared between baited and unbaited sites ($n$ = 3) taking prebaiting population sizes into account. Zinc phosphide was effective in decreasing the abundance (adjusted trap success) of mice on aerially baited sites (by 51%), but the reduction observed on ground-baited sites (24%) was not significant. There was no change in abundance on the untreated sites. There was a significant reduction in the survivorship of mice on both aerially and ground-baited sites compared with unbaited sites. Non-target species were monitored before and after baiting. Only four bird deaths were recorded as a result of the baiting program. Given that birds are highly mobile, with deaths possible many kilometres from the bait sitesit was difficult to fully assess the impact of poisoning on bird species in the area without more rigorous searching of vegetated areas further from baited paddocks.

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