

Present and Likely Future Policies for Cadmium Management in Australia

M.J. McLaughlin and D.P Stevens

CSIRO Land and Water/University of Adelaide, PMB 2, Glen Osmond, SA 5064, Australia

Management of cadmium (Cd) in Australian agriculture is controlled through a national strategy – the National Cadmium Minimisation Strategy (<http://www.cadmium-management.org.au>) – managed through a committee comprising representatives from state and federal agriculture agencies, the federal organization responsible for food safety, the horticulture, grains and fertilizer industries, and scientific representatives from CSIRO. The strategy commenced in 2000, after a review of the potential risks facing Australian produce in the international marketplace, and a review of the national standards for Cd in food. A key component of the strategy was the realization that accumulation of Cd in the food chain could not be controlled by limiting Cd inputs alone, but that an integrated approach of limiting inputs, increasing farmer awareness and adoption of effective agronomic practices, coordination of data collation, data analysis and research, and coordination of policies was needed to be effective.

The elements of the strategy are therefore to: harmonise State regulations and standards controlling Cd in manufactured fertilizers and organic wastes; develop best management practices (BMPs) for growers to minimise Cd accumulation in crops; establish a national database for Cd in crops; establish a national and regional Cd balance model for agricultural systems; establish national quality assurance programs for analysis of Cd in crops and foods; and provide input to international standards for Cd concentrations in traded food commodities through Codex. Several BMP brochures have been produced for growers/industry to assist them minimise Cd in the food chain (Fig. 1), and these have widely increased awareness of the Cd issue among farmers in Australia.



Fig. 1. Best Management Practice brochures produced to assist farmers in Australia control food chain accumulation of Cd.

Current policies controlling Cd in Australian agriculture are a combination of food quality standards, irrigation water quality standards, fertilizer standards, biosolid standards, and soil standards (only for soils receiving biosolids). To date, no soil limit values have been suggested to protect from food chain contamination on a broader scale. Future policies in Australia are unlikely to be radically different from those currently in place, although if mass balance is to be achieved in many agricultural systems, further reductions in fertilizer Cd concentrations will be needed.