Appendices

Appendix 1

Acidification rates and annual lime requirements for different farming systems in high (annual rainfall >550 mm) and low (annual rainfall < 300 mm) rainfall environments (Data from Slattery *et al.* 1999).

	Plant species	Acidification rate (kmol(+)/ha.yr)	Lime equivalent (t/ha)
High rainfall	Perennial pasture	4	0.20
(annual rainfall	Annual pasture	5	0.25
>550 mm)	Crop/pasture	7	0.35
	Wheat/lupin	4	0.20
	Tobacco	-0.3	-0.02
	Grapes	2	0.10
	grass/legume (hay)	6	0.30
	Eucalyptus/Acacia	0.7	0.04
	Eucalyptus	1.3	0.07
Low rainfall	Annual pasture	1	0.05
(annual rainfall	Wheat/legume crop	0.3	0.15
<300 mm)	Wheat/pasture	0.4	0.02

Major effects of soil acidification

Appendix 2. Summary of the effects/impacts of soil acidification developed by the steering committee, on aquatic and terrestrial biodiversity, agricultural production capacity Utilities and Industry due to declining soil health and fertility, loss of plant cover and surface water.

Industry						Utilities/ Infrastructure			Agricultural production capacity						Effects/impacts of acidification of soil on:	Terrestrial biodiversity		Aquatic biodiversity				
Loss of utility	Loss of amenity	Reduced developmental potential	Higher maintenance costs	Accelerated depreciation	Higher processing costs	Higher maintenance costs	Accelerated depreciation	Higher processing costs	Land salinisation	Reduced land capability	Higher processing costs	Erosion	Reduced traffic	Reduced options		Loss of habitat	Changed hydrolytic conditions	Stream salinisation	Loss of habitat	Changed flow regimes	Eutrophication	Sedimentation
															Decline in soil health							
		√	√	√	√	√	√	√		√	√	√		√	Compaction	√			?	√		
		√	√	√	√	√	√	√		√	√		√	√	Waterlogging	√	√				√	
															Loss of plant cover							
?	?		√	√	√		√	√				√			Runoff	√		√	?	√	√	√
?	?	√	√	√	√	√	√		√	√			√	√	High water tables	√	√	√	?	√		
?	?		√		√	√				√	√	√		√	Increased weeds	√						
															Decline in soil fertility							
									√	√	√	√		√	Plant productivity	√	√	√				
		√							√	√				√	Plant options		√	√				
			√	√	√	√	√	√						√	Surface water	√			?			√