

Table 2 Induction of proline accumulation during osmotic stress in plants

Species	[Proline] fold increase		Reference
	control	Stress condition	
Algae			
<i>Stichococcus bacillaris</i> (green alga)	140	1234 mosmol kg ⁻¹	Brown and Hellebust (1978)
Dicots			
<i>Mesembryanthemum nodiflorum</i> (halophyte) cell suspension culture	7	NaCl: 400 mM	Treichel (1986)
<i>Nicotiana tabacum</i> L. (tobacco) cell suspension culture	4.4	NaCl: 428 mM	Binzel <i>et al.</i> (1988); La Rosa <i>et al.</i> (1991)
<i>Nicotiana sylvestris</i> (tobacco, salt-resistant strain) cell suspension culture	46	NaCl: 150 mM	Kir'yan and Shevyakova (1985)
<i>Nicotiana tabacum</i> L. (tobacco) leaves	20	NaCl: 200 mM	Szoke <i>et al.</i> (1992)
<i>Spinacia oleracea</i> L. (spinach)	11	-2 mPa	Huang and Cavalieri (1979)
<i>Solanum tuberosum</i> L. (potato) cell suspension culture	9	10% PEG	Corcuera <i>et al.</i> (1989)
<i>Lycopersicon esculentum</i> (tomato) cell suspension culture	319	25% PEG	Handa <i>et al.</i> (1983); Rhodes <i>et al.</i> (1986)
<i>Helianthus tuberosum</i> L. (Jerusalem artichoke) tuber tissue	10.6	1.0 M sorbitol	Wrench <i>et al.</i> (1980)
<i>Arabidopsis thaliana</i>	8	NaCl: 120 mM	Chiang and Dandekar (1991)
<i>Medicago sativa</i> L. (alfalfa) roots	8	NaCl: 150 mM	Fou'gere <i>et al.</i> (1991)
bacteroids	13	NaCl: 150 mM	
cytosol	11	NaCl: 150 mM	
<i>Vicia faba</i> L. (field bean)	9	2-day drought	Venekamp and Koot (1988)
<i>Glycine max</i> L. (soybean) leaves	11	NaCl: 200 mM	Moftah and Michel (1987)
nodules	3	2-day drought	Kohl <i>et al.</i> (1991)
Monocots			
<i>Triticum aestivum</i> L. (wheat) apex and leaves	195.4	-3.6 mPa	Munns <i>et al.</i> (1979)
<i>Hordeum vulgare</i> (barley)	3	-1.5 mPa	Boggess <i>et al.</i> (1976a)
<i>Oryza sativa</i> (rice)	4	KCl, 50 mM	Chou <i>et al.</i> (1991)