

Standard parameters used in the plant module.

climate	arid	semi-arid	dry Mediterranean	typical Mediterranean	mesic Mediterranean	range in sensitivity analysis
representative species (for illustration only)	<i>Stipa capensis</i>	<i>Crithopsis delileana</i>	<i>Trisetaria macrochaeta</i>	<i>Avena sterilis</i>	<i>Brachypodium dystachium</i>	
PWP (MPa)	−6.5 (1)	−5.5 (1)	−3.5 (1)	−1.75 (1)	−1.5 (1)	[−7.5, −1.5]
m_{seed} (mg)	3	3	3	3	3	[0.1, 5.0] (2)
m_{fruit} (mg)	3.81	3.81	3.81	3.81	3.81	[1.0, 2.0] · m_{seed} (7)
RGR_{max}	0.17	0.17	0.17	0.17	0.17	[0.1, 0.2] (2)
competitiveness C (%)	20	20	20	20	20	[10, 50]
$m_{\text{established}}$ (mg)	5.0	5.0	5.0	5.0	5.0	[1.5, 2.5] · m_{seed}
m_{A2} (mg)	3.5	3.5	3.5	3.5	3.5	[1.1, 1.5] · m_{seed}
m_{A3} (mg)	4.5	4.5	4.5	4.5	4.5	[1.1, 1.5] · m_{A2}
m_{A4} (mg)	6.5	6.5	6.5	6.5	6.5	[1.1, 1.5] · m_{A3}
m_{max} (mg)	500	500	500	500	500	[100, 1500]
m_{mature} (mg)	20	35	35	40	40	[0.05, 0.2] · m_{max}
m_{C1} (mg)	30	30	30	30	30	[15, 50]
m_{C2} (mg)	55	55	55	55	55	[1.5, 4] · m_{C1}
allocation (%)	60	60	60	60	60	[30, 80] (4, 5, 6)
density-dependent mortality, M_D (%)	40	40	40	40	40	[20, 60] (3, 8)

Only two plant parameters (shown in red) were varied among species to facilitate the interpretation of results.

- (1) derived from relative species abundance at the field sites (I. Konsens, pers. comm.) and Majerus ME: **Response of root and shoot growth of three grass species to decreases of soil water potential.** *Journal of Range Management* 1975, **28**:473-476.
- (2) Dyer AR, Turkington R, Goldberg DE, Sayre C: **Effects of growing conditions and source habitat on plant traits and functional group definition.** *Functional Ecology* 2001, **15**:85-95.
- (3) derived from Goldberg DE, Turkington R, Olsvig-Whittaker L, Dyer AR: **Density dependence in an annual plant community: variation among live history stages.** *Ecological Monographs* 2001, **71**:423-446.
- (4) Aronson JA, Kigel J, Shmida A: **Reproductive allocation strategies in desert and Mediterranean populations of annual plants grown with and without water stress.** *Oecologia* 1993, **93**:336-342.
- (5) Grünzweig JM, Körner C: **Biodiversity effects of elevated CO₂ in species-rich model communities from the semi-arid Negev of Israel.** *Oikos* 2001, **95**:112-124.
- (6) Gonzalez Ponce R, Santin I: **Competitive ability of wheat cultivars with wild oats depending on nitrogen fertilization.** *Agronomie* 2001, **21**:119-125.
- (7) Kigel J, Perevolotsky A, Roundy BA, Allen P, Mayer SE: **Predicting seed-bank germination in semiarid rangelands under grazing. Final report. International Arid Lands Consortium Project 98R-27, Research Grant 191-1-610-8. Final Report.** 2002.
- (8) unpublished field data (H. Parag, pers. comm.)