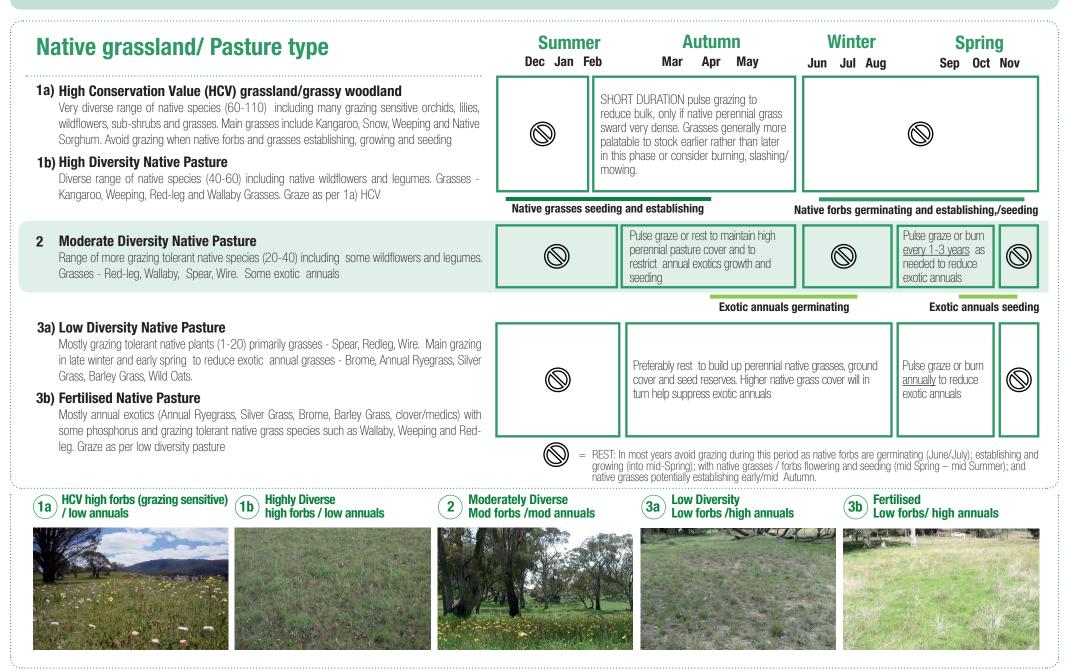
Grazing as a tool for biodiversity conservation in temperate grassy ecosystems



Grazing as a tool for biodiversity conservation in temperate grassy ecosystems

This diagram should be used as a guide only – there is no single 'recipe'. The underlying assumptions are:

- Each site will differ depending on its history; the season, rainfall and temperatures will vary annually therefore the best guide to the management needed will be the life cycle stage of the target species (is it germinating, growing, flowering or seeding?), the abundance of exotic annuals and the bulk of native grasses
- Grazing is based on rotational grazing principles:- high intensity & short duration with long rests between to maintain and build-up desirable species, their seedbank persistence and perennial native groundcover; ensure annual grasses are grazed before seedheads emerge
- No fertiliser is being applied and native pasture is low in phosphorus; fertiliser can increase annual and exotic weeds and decrease native species
- Pasture is not stressed by below average rainfall, fire, flood, frost

- Grazing is targeting the herbaceous layer only (although there is more potential for increased tree and shrub regeneration)
- Grazing is only one tool consider in conjunction, or alternatively using other management techniques eg. fire, nutrient and weed management, slashing, re-seeding and pasture cropping (fertilised pasture only) and/or mowing esp. when grasses less palatable
- For commercial grazed pastures for ongoing production, preferably aim for low stocking rates < 4 DSE (Dry Sheep Equivalent) especially in dry conditions or moderate (4 6 DSE) in good seasons, maintain biomass/ dry matter (+1500kg /ha), keep groundcover between 70 100% and no fertiliser application
- the native grass and forb germination/establishment periods indicated here reflect ideal germination combinations of temperature and moisture – germinations can also frequently occur at other suitable times of year

This is a simplified diagram - we recommend it is used in conjunction with more detailed management information such as Dorrough, Stol and McIntyre (2008) "Biodiversity in the Paddock: A Land Managers Guide'; Rawlings, K. et al (2010) 'A Guide to Managing Box Gum Grassy Woodlands'; Langford et al (2004) 'Managing Native Pastures for Agriculture and Conservation' NSW DPI; Grassy Box Woodlands Conservation Management Network **www.gbwcmn.net.au**; Communities in Landscapes **www.cil.landcarensw.org.au**; Florabank **www.florabank.org.au**;

Plant common names with (genus and species):- Kangaroo Grass (Themeda australis), Snow Grass (Poa sieberiana), Weeping Grass (Microlaena stipoides), Native Sorghum (Sorghum leiocladum) Red-leg Grass (Bothriochloa macra), Wallaby or White top (Austrodanthonia spp.), Spear Grass (Austrostipa spp.), Wire Grass (Aristida spp.), Brome (Bromus spp.), Annual Ryegrass (Lolium spp.), Silver Grass or Rat's tail Fescue (Vulpia spp.), Barley Grass (Hordeum spp.), Wild Oats (Avena spp.) Clover/Medics (Trifolium and Medicago spp.)

Note; 'Pulse' grazing = refers to a high intensity and short duration graze. 'Forbs' = native herbaceous plants (not grasses) such as wildflowers, orchids, lilies, etc

© CSIRO Ecosystem Sciences, Canberra, 2012





