PRACTICALITIES

MANAGING WILD OATS AMONG NATIVE GRASSES IN A YORK GUM/JAM WOODLAND

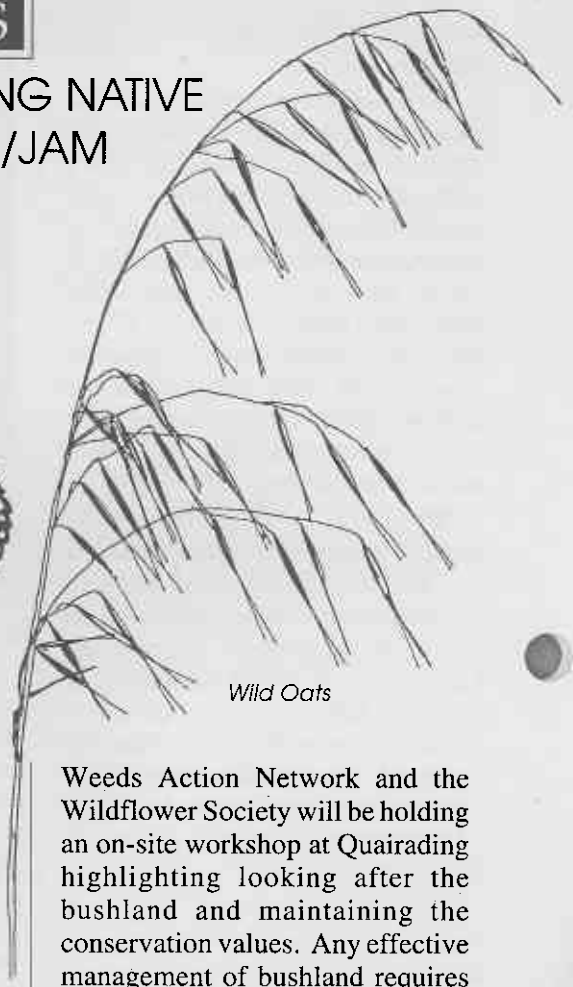
by Kate Brown

THE Quairading Nature Reserve, 600 hectares of bushland just west of Quairading, contains a diverse range of soils, landforms and associated plant communities. Salmon gum and wandoo woodlands occur on the heavier soils, *Banksia prionotes* woodlands on the yellow sandy rises and heathlands on grey sand plains. York gum/jam woodlands grade into rock oak woodlands around the granites and tamma shrublands cover a range of soils including sandy loams and gravelly sands. Much of the bushland is relatively undisturbed, however a past history of grazing in the York gum/jam woodlands has left a legacy of weed invasion. These woodlands have historically been favoured sites for grazing, and wild oats (*Avena barbata*) and blowfly grass (*Briza maxima*) are now common components of the understorey, smothering and out-competing many of the flowering native herbs and native perennial grasses.

Previous studies both in Western Australia and in native grasslands in eastern Australia have indicated that very low rates of grass selective herbicides sprayed early in the winter season can effectively control annual exotic grasses without seriously impacting on other plants including perennial native grasses. Preliminary results of our work among the native grasses in the York gum/jam woodland at Quairading are supporting these earlier studies

In early August 1999 when the wild oats were around 10cm high, plots of 20m x 20m were sprayed with low rates of grass selective herbicide (for exact prescription, contact author). Within the sprayed plots the wild oats were very much reduced both in abundance and size. The blowfly grass was also much reduced. There was no loss of native grasses within these sprayed plots,

Blowfly Grass



Wild Oats

however there did appear to be a reduction in flowering particularly in foxtail mulga grass (*Neurachne alopecuroidea).* It will be interesting to see what the next season brings in the way of recruitment of native species. Over the summer months seed from native everlastings including *Rhodanthe manglesii, R. citrina,* and *Waitzia acuminata,* also from perennial grasses such as foxtail mulga grass, *Austrostipa trichophylla* and *A. elegantissima* were collected. Hopefully sowing these into sprayed areas this autumn will encourage natives rather exotic invaders to move into the gaps. Wild oats' seed is short lived (around six months) in the soil and so it was not surprising that few germinants were observed in the sprayed plots following summer rains in January/ February 2000.

The management of wild oats is just one example of the sort of management actions that are required to effectively look after the conservation values of woodlands. In August 2000 the Environmental Weeds Action Network and the Wildflower Society will be holding an on-site workshop at Quairading highlighting looking after the bushland and maintaining the conservation values. Any effective management of bushland requires an understanding and knowledge of plants (both native and introduced) and their patterns of distribution in a particular bushland patch. The workshop will look at how the information gathered from the September 1998 bushland plant survey, carried out by the Wildflower Society with help from members of the Quairading community, can be used to help manage the conservation values of this diverse patch of remnant vegetation. It will include site inspections and a visit to the wild oats trials.

Ref: Hitchmough J.D., Kilgour R.A., Morgan J.W. and Shears I.G. (1994). Efficacy of some grass specific herbicides in controlling exotic grass seedlings in native grassy vegetation. Plant Protection Quarterly, ***9****: pp 28-34.*

Kate Brown is Project Officer for the Environmental Weeds Action Network. She can be contacted at the Swan Catchment Centre on 9220 5300.