BACK BOX

When emus over-indulge

By consuming the fruit emus spread the bush's seeds.

As summer passes, the fruit of the nitre bush (*Nitraria billardieri*) ripens in the Riverina of south-eastern Australia. Soon flocks of voracious emus, sometimes 80 in number, will descend upon the cherry-like fruit for their annual feast.

Studies by Dr Jim Noble of the CSIRO Division of Land Resources Management at Deniliquin, N.S.W., have revealed that at the peak of the season the fruit can comprise up to 96% of the birds' diet. Some 7800 fruit stones were found in the gastro-intestinal tract of one bird.

Examination of emu droppings confirms the impression: up to 1350 stones can be found in a single deposit. However, such a figure begins to lose meaning once emus concentrate almost solely on the fruit, since it acts as a purgative.

This over-indulgence doesn't only delight the emus. Dr Noble has discovered that the nitre bush benefits too, in that eating of the fruit by the emu considerably assists germination of the seed.

In one experiment, he found that 62% of emu-ingested seed germinated, compared with only 6% of seed that was picked from the bush. He believes that the emu is a powerful factor in the spread of the nitre bush on the riverine plain.

That is not always beneficial for land-holders. Nitre bush is unpalatable to stock and it eventually gets the upper hand after saltbush and other perennial shrubs have been eaten out. Some graziers regard it as a nuisance, providing refuge for vermin such as rabbits.

On the other side of the coin, lambs in drier areas appear to prefer the fruit when it is available, even though sheep, cattle, kangaroos, and rabbits will only eat some leaves and fruit — mainly during drought. Furthermore, in arid areas, the bush is highly regarded for minimizing soil erosion. Its tap root can penetrate to more than 3 metres in depth, so it can survive under extremely dry conditions, and it will grow with water saltier than the sea.

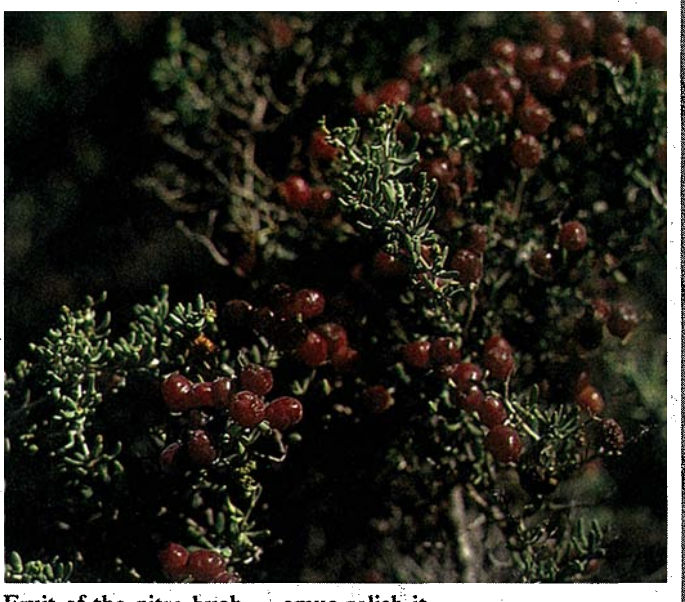
How does the fruit rate as a food for humans? The Aborigines regarded the fruit highly, and in the Gobi Desert of the Soviet Union the locals consider the fruit of a related species as a delicacy. Dr Noble has tried eating the berries, but he was not impressed. He found them very sour until late in maturity. Fruit lots sent to the CSIRO Division of Food Research for trial canning also lacked appeal.

Nevertheless, Dr Noble believes there is scope for the selection of varieties with

larger and more palatable fruit. Barring that, he thinks they are best left for the emus.

Andrew Bell

The biology and autecology of *Nitraria* L. in Australia. J. C. Noble and R. D. B. Whalley. *Australian Journal of Ecology*, 1978, **3**, 141–77.



Fruit of the nitre bush — emus relish it.