REVEGETATION

THINKING BEYOND TODAY: A GLOBAL PERSPECTIVE FOR LOCAL ACTION

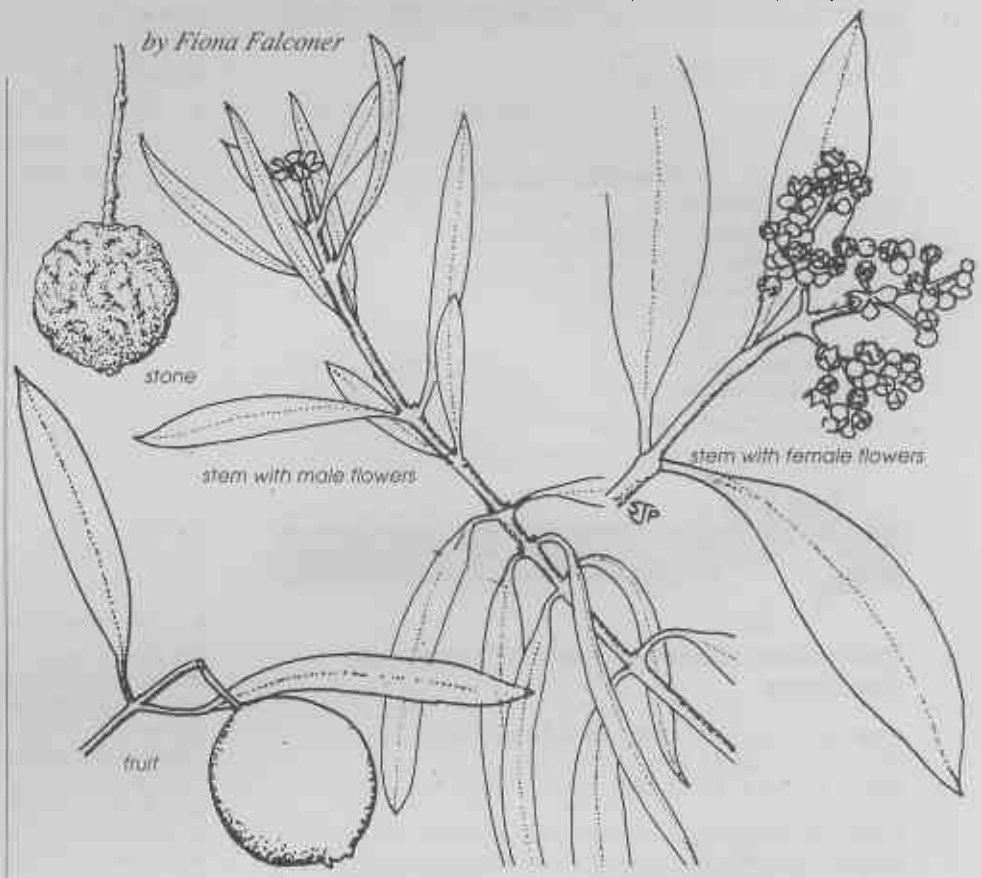
by Fiona Falconer

DEVISE new farming systems! Grow new crops! Pay land managers who are conserving biodiversity! These were some of the challenging ideas put to a forum, hosted by the Moore River Catchment Group at Moora in July 2000, by internationally-recognised Israeli Professors Uriel Safriel and Yosef Mizrahi.

The Moore River Catchment is 14,000 sq km in area, and is under threat from salinity, erosion, soil acidity, declining biodiversity etc, as well as recently suffering from severe summer floods. In addition, we are seeing reduced profitability of the traditional crop and livestock enterprises that have been the mainstay of the region's economy. What can be done?

Prof. Mizrahi urged us to look for new crops that can supply niches in world markets. Since 1984 he has been working with farmers in the Negev Desert to introduce and trial wild plants with potential to become new fruit and nut crops. Of an initial 60 species, seven show real promise, including Pitaya, a climbing cactus from South America which requires little water and so is very suitable for desert conditions. He pointed out that cash crops for export have a prescribed lifetime of maximum profitability, so it is important that research and development is a continuing process. It was also emphasised that the genetic potential in our local native plants is a huge untapped resource, well worth preserving into the future.

Prof Safriel's presentation focussed on global climate change and its potential effects in WA. (As an Israeli representative on the United Nations 'Intergovernmental Panel on Climate Change' he has an in-depth knowledge of the predictions.) Predictions on effects of global warming for Australia included: damage to coral reefs; rise of the snowline and decline of alpine ecosystems; increased aridity in inland areas; forestry in southern regions being vulnerable because of reduced rainfall and increased fire risk; sea level rise leading to salinisation of groundwaters in coastal areas; and increase in insect-borne diseases.



Quandong, one of the potential fruit crops being investigated by Professor Mizrahi.

He said that for the first time, at the Rio Conference in 1992, the world tried to put environment and development together to emphasise linkages. A new term emerged - 'sustainable development' - which was defined as 'the rate of resource use does not exceed the rate of renewal'. We do not know at what point in space and time world development becomes non-sustainable. We do know that we are striving for intergenerational equity.

The loss of biodiversity - ie the loss of species instrumental in providing the ecosystem services which enable both natural and managed ecosystems to remain healthy - is of major concern. Land managers have a role in the conservation of biodiversity - should society acknowledge this by some level of monetary compensation? After all, the ecosystem services land managers help to maintain include such basics as climate control, maintenance of the water and carbon cycles and providing living conditions for biodiversity of potential economic value. This is most important for ecosystems on the edges of dryland zones. They are natural assests for ensuring future global food security, as the natural genetic variability of the flora and fauna in these marginal zones may mean that some genetic types will survive desertification, and so will be able to be used to rehabilitate and reconstruct the ecosystem functions lost elsewhere.

The Moore River CG hopes that cooperation between researchers in WA and Israel may eventuate and so advance our sustainable future.

Fiona Falconer is LFW *Officer at Coorow. She can be contacted on 9952 1074.*