

The Leucaena Network: a grazier advocacy organisation ensuring the future of a valuable forage resource for northern Australia

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Introduction *Leucaena leucocephala* is a productive and sustainable forage tree legume for beef cattle production in northern Australia. Following a protracted period of research and development to overcome agronomic and social constraints, substantial adoption by graziers is now occurring (Mullen, these proceedings). However, a recent challenge has threatened future development, viz. the perception by some environmentalists that leucaena is an environmental weed. In addition, production-oriented support from public research and development organisations has diminished significantly over the past 20 years. The Leucaena Network (TLN) was formed in July 2000, primarily to counter the anti-leucaena movement, but has since developed as an advocacy organisation promoting the many beneficial aspects of leucaena forage systems. The structure, aims and achievements of this unique organisation are outlined below.

The Leucaena Network This is a community organisation comprised primarily of cattle graziers, but also of research and development staff from government agencies and universities. The charter of TLN is to, “Promote the responsible development of leucaena for productive and sustainable grazing and agroforestry systems to build stronger rural communities”. The TLN aspires to being proactive, rather than reactive in response to opportunities and industry needs. The formal structure of TLN is typical, with an executive committee elected at an annual general meeting and committee meetings held every two months. Operational expenses are met from income derived from membership fees and from industry support. There are currently 100 members.

Addressing the weed issue The leucaena-grass system in northern Australia is based on *Leucaena leucocephala* subsp. *glabrata* (forage leucaena). Unfortunately, the closely related subspecies, *L. leucocephala* subsp. *leucocephala* (weedy leucaena), is a minor environmental weed in northern Australia. Both subspecies have weed potential in ungrazed, coastal environments. Consequently, environmental lobby groups have pressured government to curtail the planting of forage leucaena by graziers. The TLN has addressed this issue through both advocacy and action: 1) A Code of Practice for the responsible use of leucaena by graziers was developed. The Code lists measures to minimise the production and spread of leucaena seed in grazed systems, and outlines measures to eradicate any seedlings that recruit beyond the paddock boundary. 2) TLN engaged with the Environmental Protection Agency, the Department of Natural Resources and Mining, and the Department of Primary Industries and Fisheries (DPIF), to develop a policy proscribing the use of leucaena. Following substantial input from TLN, the policy supports the responsible use of leucaena as a grazing resource, but highlights the weed potential of ungrazed, or irresponsibly grazed leucaena. 3) TLN was successful in attracting funding for a weed eradication programme targeting highly visible infestations of weedy leucaena. In most instances these are infestations of the naturalised weedy leucaena and are not the result of grazer plantings. The proactive approach of TLN to the weed issue averted the unnecessary banning of leucaena for future planting.

Research collaboration The network has determined research priorities to address production limitations and environmental issues. It currently coordinates two Meat and Livestock Australia-funded projects with the University of Queensland worth over AU\$600,000: 1) Development of a hybrid cultivar resistant to psyllid insects through a recurrent selection program (Dalzell *et al.*, these Proceedings a); and 2) An investigation of the causes and extent of mimosine toxicity in Queensland (Dalzell., these Proceedings b). Research proposals have been submitted to various funding bodies to: 1) Promote leucaena for salinity mitigation in Queensland; 2) Quantify reductions in greenhouse gas (methane) emissions from cattle grazing leucaena pastures; 3) Study the carcass quality of cattle grazing leucaena-grass pastures; and 4) Develop sterile forage and timber cultivars.

Grazier training courses In collaboration with The University of Queensland and DPIF, TLN has developed a highly acclaimed, grazier-oriented training programme entitled “Leucaena for Profit and Sustainability”. This two-day course is conducted on-farm in leucaena production areas. Practical lectures on agronomy, plant nutrition, grazing management, mimosine management and economics are followed by farm walks and group discussion sessions. Five courses were conducted in 2004 and were attended by over 100 graziers in total.

The future To ensure the future use of leucaena as a valuable forage resource, TLN aims to pre-empt and address ongoing concerns of weed potential, expand its grazier membership and continue to prioritise research issues and attract appropriate funding. By successfully addressing these issues TLN will continue to prosper.