

Opening address

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Weeds cost the Australian economy more than \$3.5 billion every year in lost production. The cost of environmental damage could be just as large, although it is impossible to put a price on the loss of native forests, wetlands, flora and fauna. The National Farmers' Federation estimates that the average Australian farmer spends about one third of their income on weed control, some \$600 million each year on chemicals. *Mimosa pigra*, a Central American shrub introduced late last century, is now rampant across wetlands and flood plains of the Northern Territory, and left unchecked, has the potential to wreak havoc across northern Australia.

Whether deliberately or accidentally introduced, mimosa poses a very serious threat to the agricultural sustainability of northern Australia. It threatens the conservation of wetlands of national and international significance, and is seriously impacting on the land use practices of Aboriginal people in northern Australia. Mimosa has many negative impacts on the social, cultural, economic and environmental values of the Northern Territory. Mimosa infestations are not isolated to the Territory, but now threaten wetlands as well as coastal and sub-coastal areas in Queensland and Western Australia, where it could establish and flourish. Internationally, mimosa threatens the profitability of agriculture in Papua New Guinea, Sri Lanka, Vietnam, Laos and Cambodia.

Mimosa grows rapidly, and can withstand severe droughts and flooding. It can grow up to six metres tall, with a single plant able to produce 9,000 seeds per square metre and a typical large plant able to produce up to 220,000 seeds per year. The seeds can remain dormant in the ground for a number of years before germinating. These seeds are spread mainly by floodwaters, so mimosa can rapidly establish dense prickly thickets along waterways and on floodplains. Seeds can also be transported by vehicles, machinery, stock and contaminated earth. The spread of mimosa is further enhanced by the lack of natural predators. Mimosa infestations are capable of doubling in area every one and a half years.

Mimosa is a threat to many wetland areas of the Top End, and has already invaded and altered the ecology of major floodplain systems. Today, as I speak to you, mimosa infests 80,000 hectares of coastal floodplains in the Northern Territory. It is regarded as the most important biological threat to the World Heritage listed Kakadu National Park, being capable of transforming species-rich tropical wetlands, sedgelands and grasslands into mono-specific stands that exclude native birds, lizards and vegetation, with rare and vulnerable plant species threatened.

On Indigenous lands, the availability of traditional foods such as fish, turtles, magpie geese and other water birds, over large areas is being reduced by the spread of mimosa. Sacred sites and sites of cultural significance are being changed. The current and future use of Indigenous land for tourism, crocodile harvesting and pastoral production is threatened by the encroachment of mimosa on large areas of these lands.

The profitability of the pastoral industry is being affected by the invasion of mimosa by reducing grazing areas and access to water resources, the increasing costs to respond to the threat and increasing costs in stock management.

The Territory's \$700 million tourist industry is also endangered. As mimosa stands can reach six metres in height they can significantly reduce access to fishing, hunting and scenic areas. And as I have indicated, Territory wildlife attractions are threatened, and the overall natural landscape degraded.

Mimosa is a native shrub of Brazil, South America. Also known as the giant sensitive plant or the bashful plant, because its leaves fold on touch, it was probably introduced to the Darwin Botanic Gardens as a botanical curiosity in the 1870s. It was not found outside the Darwin City area until 1952 when it was noticed upstream from the Adelaide River township, about 100 kilometres south of Darwin.

In the 1960s mimosa was confined to Darwin and the upper reaches of the Adelaide River. Lofty Pickering initiated control work there in 1965. At that time there was no mimosa on the floodplains. Realising that he was dealing with a major weed, Lofty asked for help. His diary shows that on Wednesday the 18th of August 1966 he asked for an extra agricultural labourer. He was told that he was glorifying the job!

During the 1970s, following several years of above average rainfall and the heavy impact of feral water buffalo, mimosa spread down the floodplains of the Adelaide River. Large infestations subsequently developed on the floodplains of the Mary and East Alligator rivers to the east, and the Finnis and Daly rivers to the southwest. By 1989 mimosa covered 80,000 hectares of floodplains.

In the Top End, Aboriginal people have control of a large area of land, over 170,000 square kilometres, including approximately 87% of the Northern Territory coastline, and consequently many of the major sub-coastal wetlands infested or threatened by mimosa. It is thought that 34% of the current mimosa infestation is situated on Aboriginal land and is impeding both the cultural and economic use of Indigenous lands. The control of mimosa is not only vital for the Aboriginal communities directly affected, but has implications for other Northern Territory land managers who live or own land adjacent to Aboriginal communities, as effective mimosa control will decrease the production of viable seed and lessen the probability of mimosa spreading into other mimosa-free areas.

If mimosa control is to be effective, long-term control has to be implemented by the affected landholders, and to this end, many Aboriginal communities have been actively involved in mimosa management for some time now. The Caring for Country Unit of the Northern Land Council, the Northern Territory Department of Infrastructure, Planning and Environment and numerous Aboriginal organisations have worked to increase their capacity to manage mimosa. An agreement with the Indigenous Land Corporation has helped Aboriginal communities resource community ranger and land management programs that have taken the leading role in controlling mimosa.

The scope of this work is significant. At the White Eagle Aboriginal Corporation, Traditional Owners have been successful in controlling over four hectares of mimosa, allowing the community to develop a substantial cattle agistment. At Maningrida, the Djelk Rangers have been successful in controlling four strategically significant mimosa infestations and thereby preventing the spread of mimosa throughout Arnhem Land. At Oenpelli, the Adumarjularl rangers have been working to control the large 1,100 hectare mimosa infestation on the Oenpelli floodplain, and the Wanga Djakamirrar rangers have been controlling mimosa on the Arafura Swamp. On the Phelp River floodplain north of the Ngukurr community, Yugal Mangi Landcare members are controlling an isolated mimosa infestation before it spreads to the Gulf country of Queensland. At the Acacia community,

the Acacia Land Management Team has successfully controlled approximately 360 hectares of mimosa and are hoping to establish a small enterprise, based upon the sustainable utilisation of magpie geese. In the Daly River region, the Malak Mala Land Management team have been controlling mimosa on their country and preventing the Kilfoyle floodplain being over-run with mimosa. The Asyrikirrak Kirim rangers and the Palumpa mimosa team have been successfully controlling mimosa in the Southern Daly Region and new land management teams are beginning work at the Bugal community in the western Finnis River floodplain.

These programs are successful collaborations of community, state and Australian Government agencies. The programs attract funding from the community organisations themselves, the Natural Heritage Trust, the Australian Government Department of Employment and Workplace Relations, and the Northern Territory Department of Employment, Education and Training. Medium-level support for these programs is critical until the communities can establish land-use enterprises to contribute to the ongoing management costs associated with these programs.

A national approach assists in preventing the spread of mimosa to areas currently unaffected, such as Queensland, Western Australia and further areas in the Northern Territory. Mimosa control must be collaborative, because the mimosa problem crosses many land-tenure boundaries within and between catchments. The mimosa strategy goes a long way to address mimosa management. It is compatible with national strategies such as the National Strategy for Ecologically Sustainable Development, the National Strategy for the Conservation of Australia's Biological Diversity, Northern Territory strategies such as the Mary River Land Use Strategy, and with local catchment and property management plans.

Four integrated programs are being implemented to achieve the vision of the mimosa strategy. They are: information and education, the prevention of spread, research and development, and impact reduction.

The following organisations are working together in a cooperative and productive manner to effectively implement the strategy: CSIRO; the Northern Territory Department of Infrastructure, Planning and Environment; Parks and Wildlife Northern Territory; Environment Australia; the Northern Land Council; landholders; the Government of Western Australia; the Government of Queensland; and other relevant government and non government organisations.

Biological control plays an essential role in reducing, for the long-term, the longevity, size and density of mimosa plants and their rate of spread. The project builds on 17 years of intensive studies that have seen 13 insects and 2 pathogens released through a collaborative partnership between CSIRO and the Department of Infrastructure, Planning and the Environment. The integrated use of chemical, mechanical and biological controls, along with prevention and revegetation of affected areas, are essential to prevent the further spread of mimosa.

Working together we can stop the invasion of this rampant noxious weed, and protect our country to ensure its long-term future benefits are available for all Australians.

Thank you.