

Discussion and recommendations on key issues

	Topic	Details	Recommendation	Proposed by	Who will be involved
1	<i>Eradication in Wasur National Park, Irian Jaya, Indonesia</i>	<p>A relatively small infestation requires urgent delineation and eradication to protect the integrity of Wasur NP and prevent spread to nearby Tonda Conservation Area in Papua New Guinea.</p> <p>There is a tripartite arrangement between Kakadu, Wasur and Tonda, a good basis on which to develop a project considering the mimosa experience in Kakadu. Buck Salau, DEH, is scheduled to visit Wasur soon for a six-month period.</p>	Through appropriate authorities encourage a project to eradicate <i>Mimosa pigra</i> from Wasur NP.	Mic Julien	The international committee, see item 7 below.
2	<i>Continue biological control to its logical end point</i>	<p>There is concern that funding for biological control of <i>Mimosa pigra</i> may cease before all potential biological control agents have been assessed.</p> <p>There are five potential agents yet to be assessed and this work will require about three years to complete.</p> <p>A strategy to complete this work and to stage reductions in resources required for biological control of mimosa has been drafted.</p>	Funding for biological control and the development of integrated strategies to be continued while there are natural enemies available that are suitable for assessment as potential agents, and to include these agents into integrated strategies.	Mic Julien	CSIRO Mic Julien, Tim Heard, NT DIPE Blair Grace
3	<i>Implementing legislation</i>	<p>There are concerns that efforts to manage mimosa are being jeopardised by lack of management elsewhere in catchments.</p> <p>Legislation has not been used to enforce landholders to undertake control strategies.</p>	NT Government to be more proactive in implementing legislation for enforcement of mimosa control.	Colin Devereaux	NT DIPE Dave Ritchie Steve Wingrave
4	<i>Strategic control of mimosa in the Northern Territory (NT), Australia and elsewhere</i>	<p>Reinvasion from seeds washed in from upstream is a major problem following control in the NT. Some landholders have expressed frustration that other landholders upstream are not controlling mimosa.</p> <p>The biological control agent <i>Carmentia mimosa</i>, which can reduce seed production by 90%, is absent at the tops of catchments e.g. near Adelaide River. <i>Carmentia</i> and other agents should be released in upper catchments to help reduce seed production and limit downstream spread.</p>	Target all control actions from the top of catchments. Biological control releases of <i>Carmentia</i> and <i>Malacorhinus</i> are to be made at the top of all catchments.	Quentin Paynter	NT DIPE Blair Grace

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5 <i>Community management/ best practice</i>	Education and awareness.	<ul style="list-style-type: none"> Condense proceedings into a management guide. Establish a mimosa 'portal' on the CSIRO web site where all info on mimosa can be placed for www access 	Mic Julien Leslee Hills	NT DIPE Leslee Hills, CRC AWM CSIRO Mic Julien Tim Heard
6 <i>Research</i>	6.1 Utilisation of biomass	Research ways to utilise biomass e.g. mushroom media and fuel in Vietnam	Tran Triet	Sri Lanka Buddhi Marambe GGC Premalal Vietnam Tran Triet
	6.2 Herbicide recommendations for Asia	Recommended herbicides in the 1992 guide are still generally valid for Australia. Review: current recommendations in Australia and Thailand for applicability to other countries.	Ian Miller	Australia Who? Thailand Royal Irrigation Department Thailand Who? Sri Lanka Buddhi Marambe Dr L Amarasinghe
	6.3 Chemical rates – Tony Searle noted that seedlings regenerating after fire are killed with much lower doses of herbicide than those in the current registration, that are more relevant for mature plants.	Carry out above review before starting new trials. Conduct research to enable registration of chemicals to allow legal use of lower dose rates.	Tony Searle	NT DIPE Steve Wingrave Sri Lanka Buddhi Marambe Dr L Amarasinghe
	6.4 Herbicide resistance	Not yet known but vigilance for the occurrence of resistance is important.	Buddhi Marambe	Sri Lanka Buddhi Marambe
	6.5 Herbicide toxicology and pollution	Determine herbicide toxicity using organisms and testing protocols suitable for tropical conditions.		ERISS/NCTWR Rick van Dam
	6.6 Vectors of seed	Determine vectors of spread i.e. what are the vectors of spread throughout the landscape. Water is currently considered the main vector. Other vectors have been proposed, such as birds, vehicles, pigs, buffalo. It is vital, in terms of application of resources to known infestations, to know the source of re-infestation; e.g. if birds are responsible, is there anyway to prevent spread?	Jason Williams	Sunwater Jason Williams

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	<p>6.7 Seed banks – The studies by Barrat et al. (these proceedings) should be extended to improve our understanding of seed longevity and the decline of soil seed banks following control of mimosa. Studies should include areas where:</p> <p>mimosa has been controlled for longer to further assess seed bank decline, and control has occurred but sites are isolated from reinvasion so we may be better able to determine seed bank longevity in absence of seed reinvasion.</p>	<ul style="list-style-type: none"> Extend the soil seed bank studies that were conducted by Barrat et al these proceedings). Determine seed dynamics in established stands with or without control measures and assess differences between soil types, in Asia and Australia 	Colin Deveraux	NT DIPE Blair Grace ERISS & CDU/ NCTWR Peter Bayliss Max Finlayson Sean Bellairs Vietnam Tran Triet Sri Lanka Buddhi Marambe AHK Balasooriya
	<p>6.8 Surveys and mapping. Application of Remote Sensing and Geographic Information Systems (GIS) to mimosa detection, mapping and monitoring; Field survey techniques</p>	<ul style="list-style-type: none"> Determine cost effectiveness of available RS data types, considering spatial and spectral resolution, areal coverage, cost per sq. km., cost of processing, required software, analysis time, required skill level of analyst etc. Develop techniques for mapping satellite mimosa outbreaks Develop approaches to best incorporate remote sensing/GIS data with field data. 	Dan McIntyre	CDU & ERISS Dan McIntyre John Lowry Mekong Prof. Tony Milne, UNSW Sri Lanka Buddhi Marambe Dr L Amarasinghe Vietnam Tran Triet

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7	<i>International cooperation</i>	Develop processes to assist information flow and communication between mimosa researchers and managers and especially inter-nationally.		<p>Working group</p> <p>CSIRO Mic Julien Tim Heard NLC Mark Ashley Michael Storrs Vietnam Tran Triet Cambodia Chin Samouth Sri Lanka Buddhi Marambe ERISS/NCTWR Rick van Dam Wetlands International Max Finlayson Thailand Wiwat Suasa-ard Sathaporn Jaiarree CDU Dan McIntyre</p>
8	<i>People issues</i>	Capacity, policy and will to carry out control		<p>ERISS/NCTWR and Wetlands International Max Finlayson</p>
9	<i>Information flow</i>	The material presented at the symposium to be made generally available. This might assist raising the awareness about mimosa. All presenters at the meeting agreed.	Leslee Hills	<p>NT DIPE Leslee Hills</p>