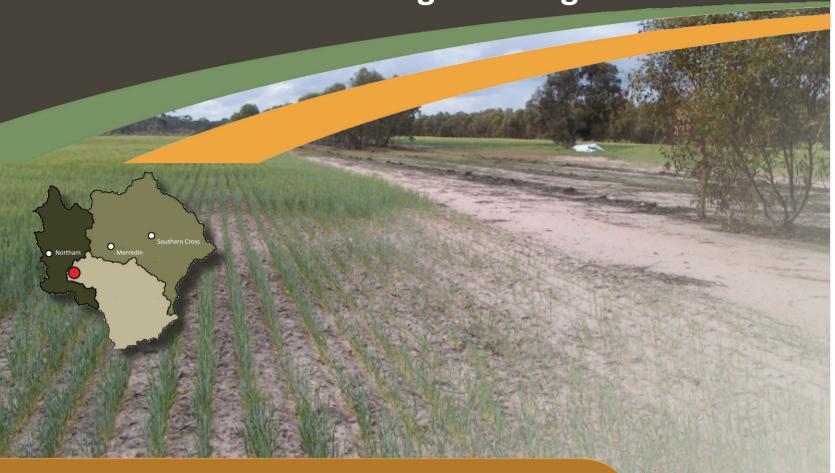


Integrated Mallee Management Project Dealing with edge effect



Project Snapshot

Group Name:

Participating Farmers:

Annual Rainfall (mm):

Upper Great Southern Oil Mallee

Growers Association

Mills (Brookton), Corke (Yealering),

Mullan (Wickepin), Quicke (Kulin), Duckworth (Lake Grace)

338-437mm

Above: Harvested oil mallee belts

Key Messages

- Non-destructive cutting & root ripping of integrated mallees
 can reduce the impact on neighbouring crops & pastures.
- Additional research is required to demonstrate the costs and benefits of this management activity.

Their story

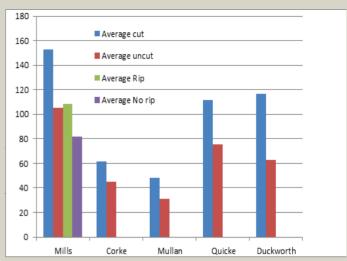
The Upper Great Southern Oil Mallee Growers Association initially contacted Wheatbelt NRM to assist them addressing the number one concern amongst farmers who have integrated mallees on their properties — edge effect. It was hoped that by breaking down a barrier to the continued adoption of mallees across the Wheatbelt and by building grower knowledge and confidence in managing edge effect would drive further investment into this agroforestry option.

The development of a viable tree cropping land use option for dry-land agricultural regions has been a long held endeavour for many WA Landholders. However the reality of slow development in the oil mallee industry has halted the adoption of this agroforestry option amongst farmers. The lack of mallee harvesting coupled with a run of dry seasons has seen a critical need for edge effect management. 'Edge effect' equates to reduced crop returns as trees and crops compete for common resources (e.g. water/nutrients).

The project was undertaken in autumn 2012 across five demonstration sites located from Brookton to Lake Grace. The results showed a >40% recovery in crop biomass adjacent to cut mallees when compared to uncut mallees. Root ripping also indicated a positive impact on crop biomass, although the further work to evaluate the costs and benefits is required as this preliminary work indicates that the cost of root ripping may be prohibitive when compared with the potential impact benefits.

The future

- Further machine cutting trials in autumn 2013 [with DEC and Grower Network support] will add further value to the project and guide landholders to cost price benefits and logistics of undertaking a management cut task
- Market development is critical to encourage the active management of mallees
- Understanding edge effect management will guide future design options for mallee integration



Graph depicts crop biomass gains across the 5 sites [~40%] due to mallee cutting and positive response to root ripping.

Acknowledgements

Upper Great Southern Oil Mallee Growers Association



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Email: info@wheatbeltnrm.org.au