

FINAL REPORT

MSF00004

A review of the potential constraints to crop production on sandy soils in low rainfall south-eastern Australia and priorities for research

PROJECT DETAILS

PROJECT CODE: MSF00004

PROJECT TITLE: A REVIEW OF THE POTENTIAL CONSTRAINTS TO CROP PRODUCTION ON SANDY SOILS IN LOW RAINFALL SOUTH-EASTERN AUSTRALIA AND PRIORITIES FOR RESEARCH

START DATE: 08.05.2014

END DATE: 31.07.2014

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Summary

The GRDC Low Rainfall Zone Cropping Solutions Network represents grain growers stretching from the Central West of New South Wales, across the Victorian and South Australian (SA) Mallee, the Upper North region of SA and across to the upper Eyre Peninsula.

The group identified crop yields on sandy soils across their regions to be well below water-limited yield potential, more so than for their finer textured soils. The group determined that identifying the key yield limiting factors specific to representative sandy soil types in the low-rainfall zone, and then to develop or extend commercially viable management practices to improve production and water use on sandy soils was a high priority.

This report (see Attachment) begins to tackle the first of these two issues, identifying key yield limiting factors on sandy soils, by collating and analysing as much of the relevant information available in solution of sub optimal growth of crops on coarse textured (sandy) soils across this low rainfall environment.

The problems of sandy soils have been apparent since agricultural lands were first cleared, but have perhaps been somewhat neglected in favour of other soils which are easier to manage and are typically more productive.

This initiative has now put the considerable problems of farming sandy soils on the agenda, and with it great hope and expectation for identification of new farming practices and technologies which will lift production on these difficult soils and provide an incentive for more certain investment and returns on these soils.

The gap between potential and current yields achieved highlights an opportunity which if realised, will make a substantial contribution to improved whole farm productivity. This report provides the foundation stone for this journey.

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