

Project Title: Soil compaction in agricultural soils of Eyre Peninsula

S 0706R Final Report

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Executive Summary

Compacted layers exist in EP soils, with sandy soils more likely to be compacted and therefore sandy soils are more responsive to deep ripping.

However grain yield increases from deep ripping were generally small and inconsistent over the course of the study (supported by modelling and trial work in WA) with the crop not being restricted by compacted layers and able to extract all plant available soil water.

There were few economic advantages with deep ripping over the course of the study. A 53 paddock evaluation with an associated grower survey established a correlation between soil compaction and soil type, but not with compaction and farming practice. This suggests that there are no enterprises or farming systems which predispose soil to compaction or "encourage" its development.

However, all findings from this project should be regarded within the context that the three years of the study were well below average in annual rainfall and hence crop production, despite some work being conducted on the lower Eyre Peninsula where absolute rainfall levels were higher than on upper EP.