

AMELIORATION OF SUBSOIL ALUMINIUM TOXICITY FOR IMPROVED PRODUCTIVITY IN THE NORTHERN REGION

Year: 2019 - 2022

Funding Provider:
National Landcare
Program, Small Grants
Round 2

Lead Organisation:
Liebe Group

Collaborators
Department of Primary
Industries and Regional
Development (DPIRD)

Location:
Dalwallinu and Latham

Aim:

This project had two main aims:

1. To demonstrate the soil health benefits of using soil amendments combined with cultivation to address subsoil aluminium toxicity.
2. To increase awareness and support the adoption of tools and methods to identify and effectively manage aluminium toxicity.

Project Background:

Aluminium toxicity in the subsoil is a major problem associated with acidic soils across the Western Australian Wheatbelt. In most Wheatbelt soils, where the subsoil pH is below 4.8, aluminium will reach levels that are considered toxic and yield limiting to crops.

Current practices to ameliorate surface soil (0-20cm) acidity have been successful and farmers are now seeking validation on practices that ameliorate subsoil (below 20 cm depth) acidity and aluminium toxicity.

Two demonstration sites were established, using farmer equipment to apply and incorporate different soil amendments such as lime, gypsum, and biochar, to reduce the productivity and profitability impacts of aluminium toxicity and improve soil health.

Demonstration of practices to identify aluminium toxicity using existing tools such as soil sampling to depth and methods to ameliorate the constraint provided farmers with the confidence to trial these practices in their own environments.

PROJECT FUNDERS



REPORTS & LINKS

Amelioration of Subsoil Aluminium Toxicity for Improved Productivity in the Northern Ag Region of WA
- Dalwallinu **link to PDF**

Amelioration of Subsoil Aluminium Toxicity for Improved Productivity in the Northern Ag Region of WA
- Latham **link to PDF**

Dalwallinu Site Activities - Spreading ameliorants

<https://tinyurl.com/altovfw20>