Spading & Deep Ripping Demonstration

FUNDED BY THE NATIONAL LANDCARE PROGRAM

BACKGROUND

A paddock at Western Flat was spread with 250 t/ha of clay that was incorporated in the top 15cm, overcoming water repellence. Two strips of 500 t/ha were applied and an Imants Spader + Deep Ripper was used to test clay incorporation and decompaction when operated at different ripping and mixing depths.

TREATMENTS

Plot 1) Rip 40cm and Spade 30cm
Plot 2) Rip 40cm and Spade 10cm
Plot 3) No-tillage Control
Plot 4) Rip 40cm and Spade 20cm
Plot 5) Rip 30cm and Spade 10cm

RESULTS TO DATE

Soil strength was measured in August using a digital penetrometer. Penetration resistance exceeded the critical threshold of 2,500 kPa at 35cm in the Control, and was substantially improved by ripping to 40cm and spading to 30cm (Figure 1).

Image 1. Imants spader with deep rip tines for enhanced deep tillage.

Image 2. Treatments were applied to plots 10.5m wide, as seen here on the left.

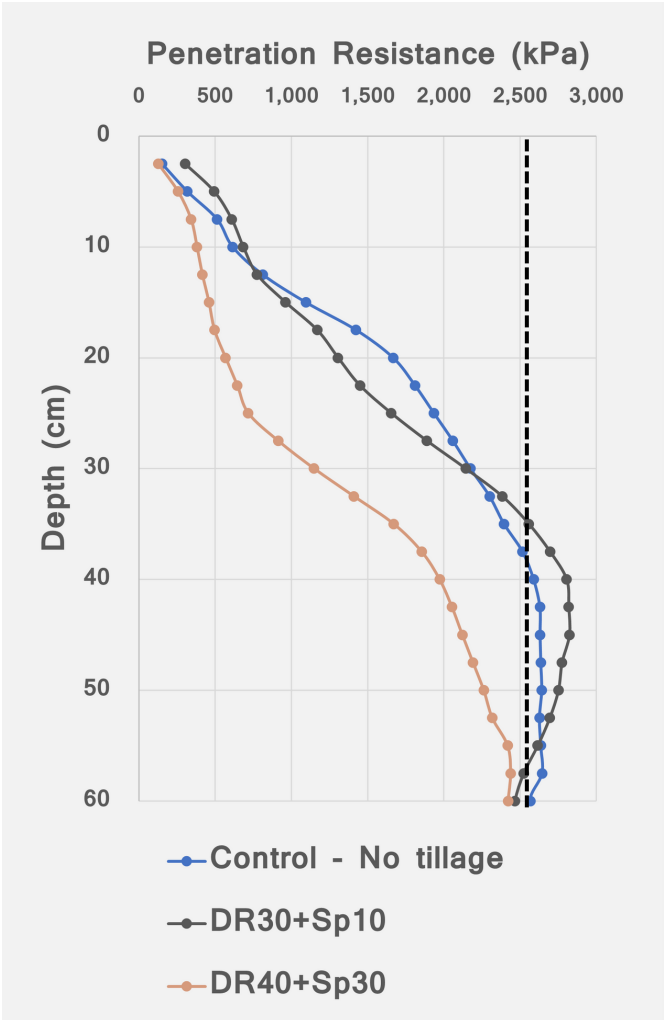

Figure 1. Deep ripping and spading reduced soil strength after clay spreading.

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