



Effect of planter shanks on tractor, soil, and crop yield in a no-till system

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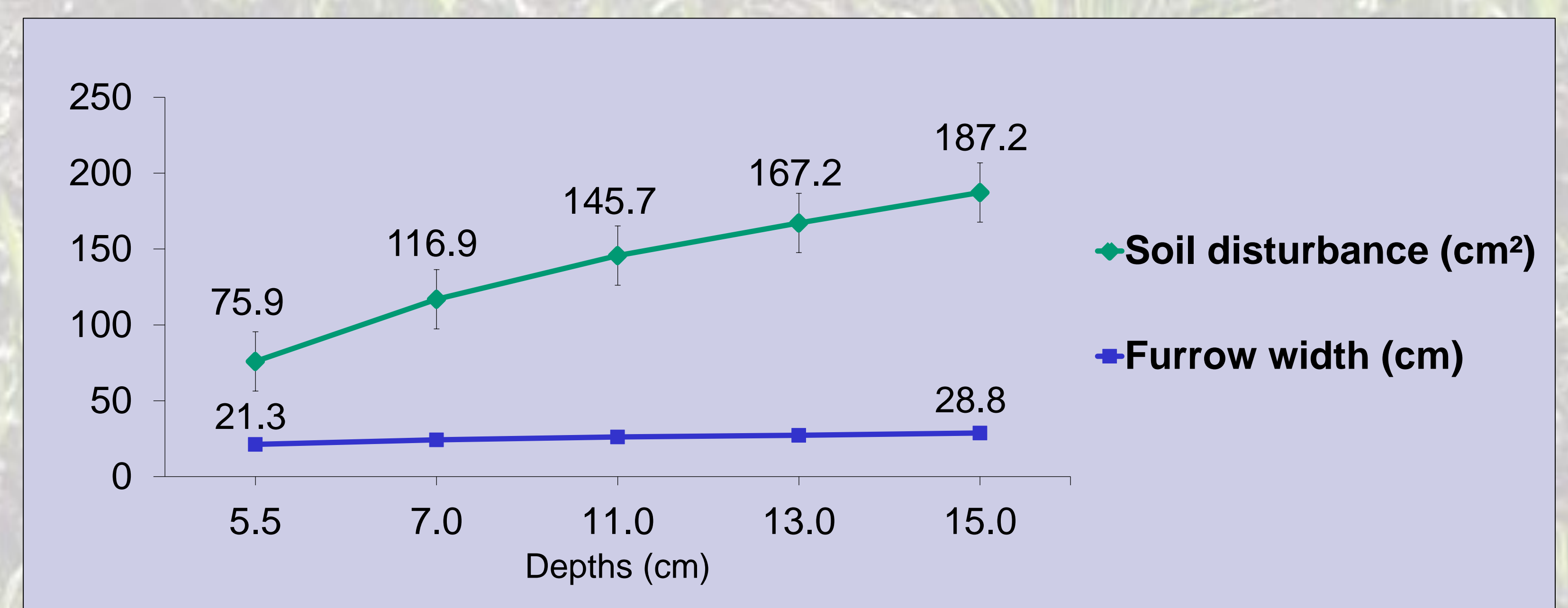
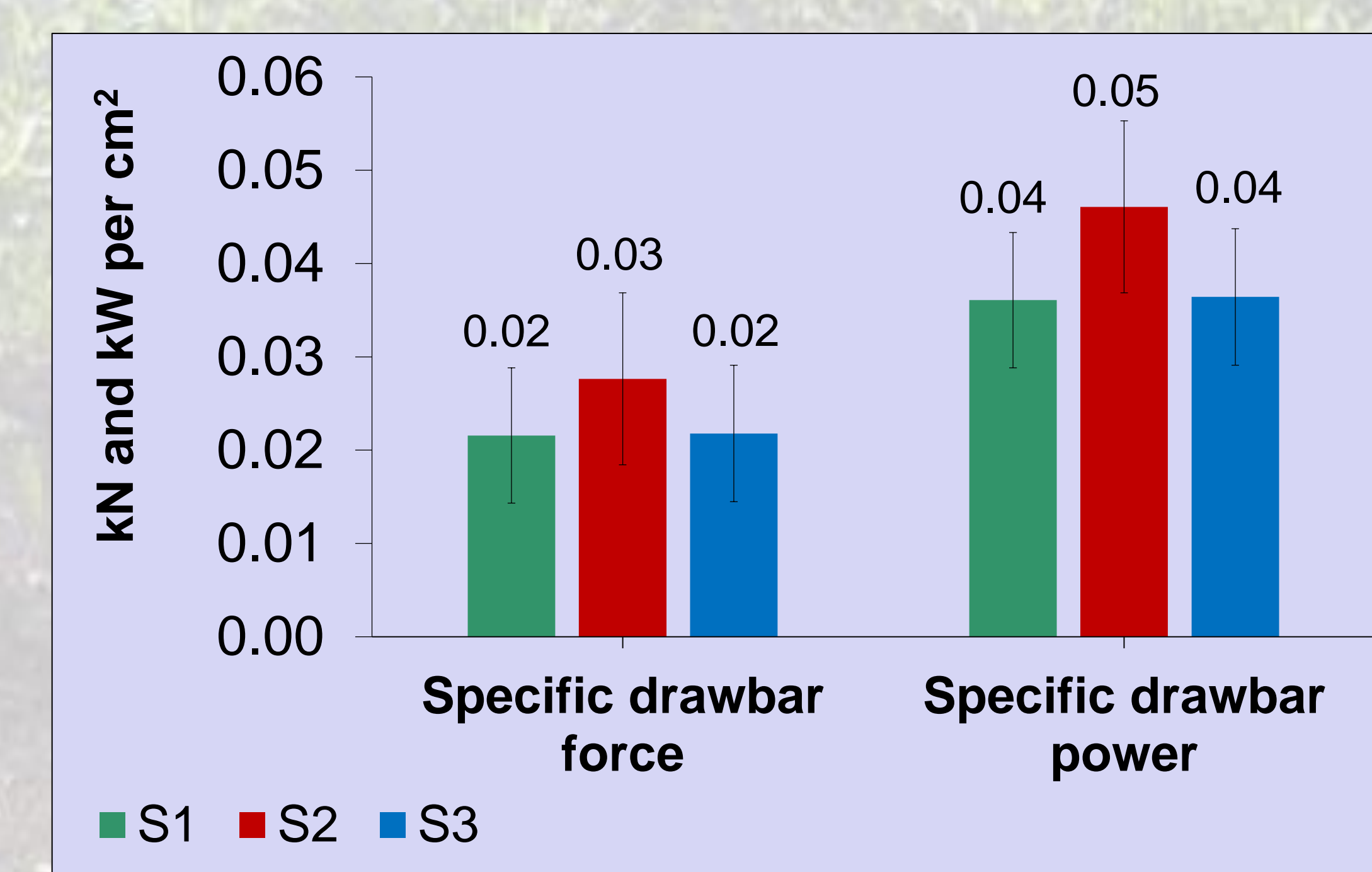
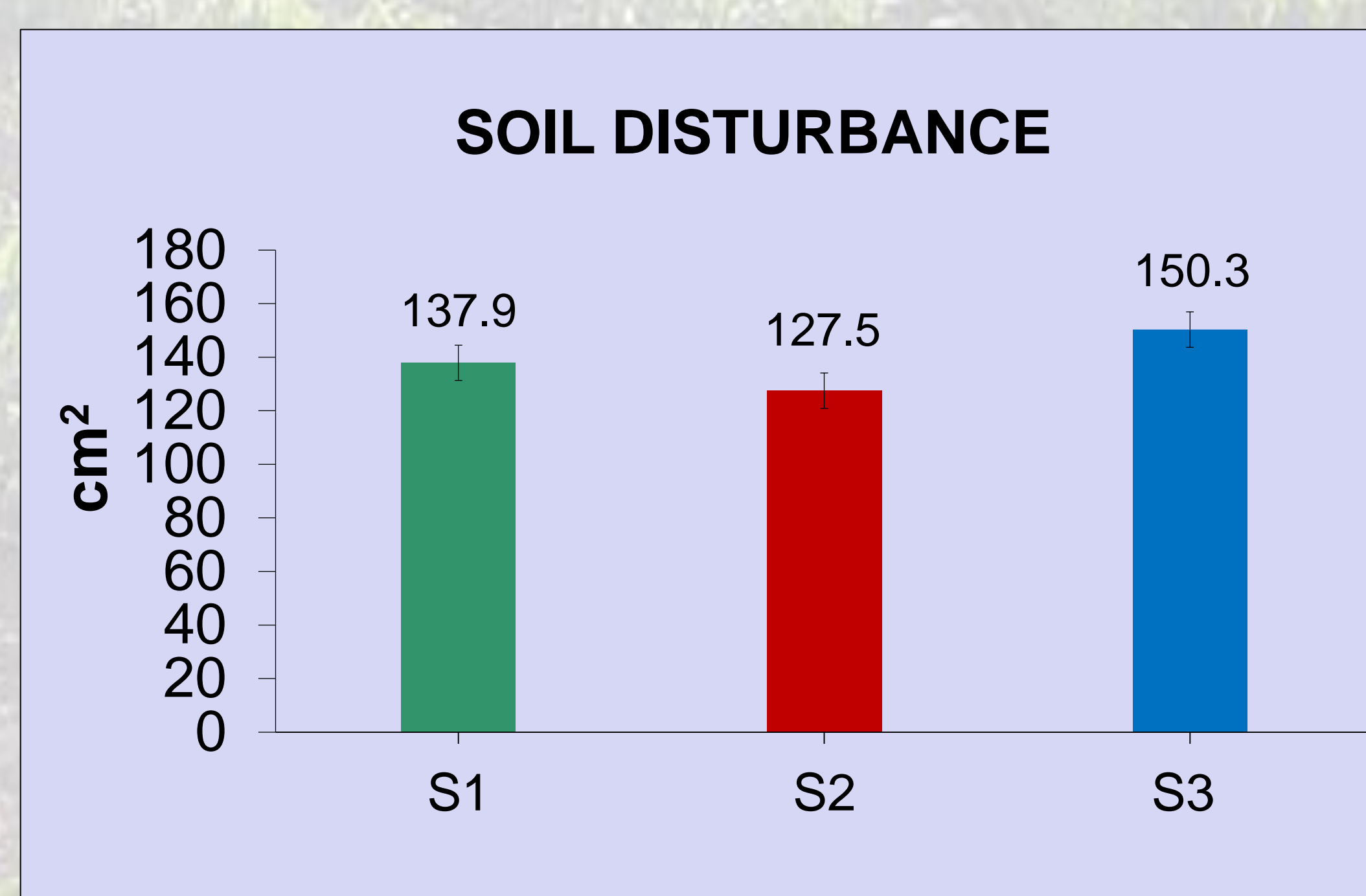
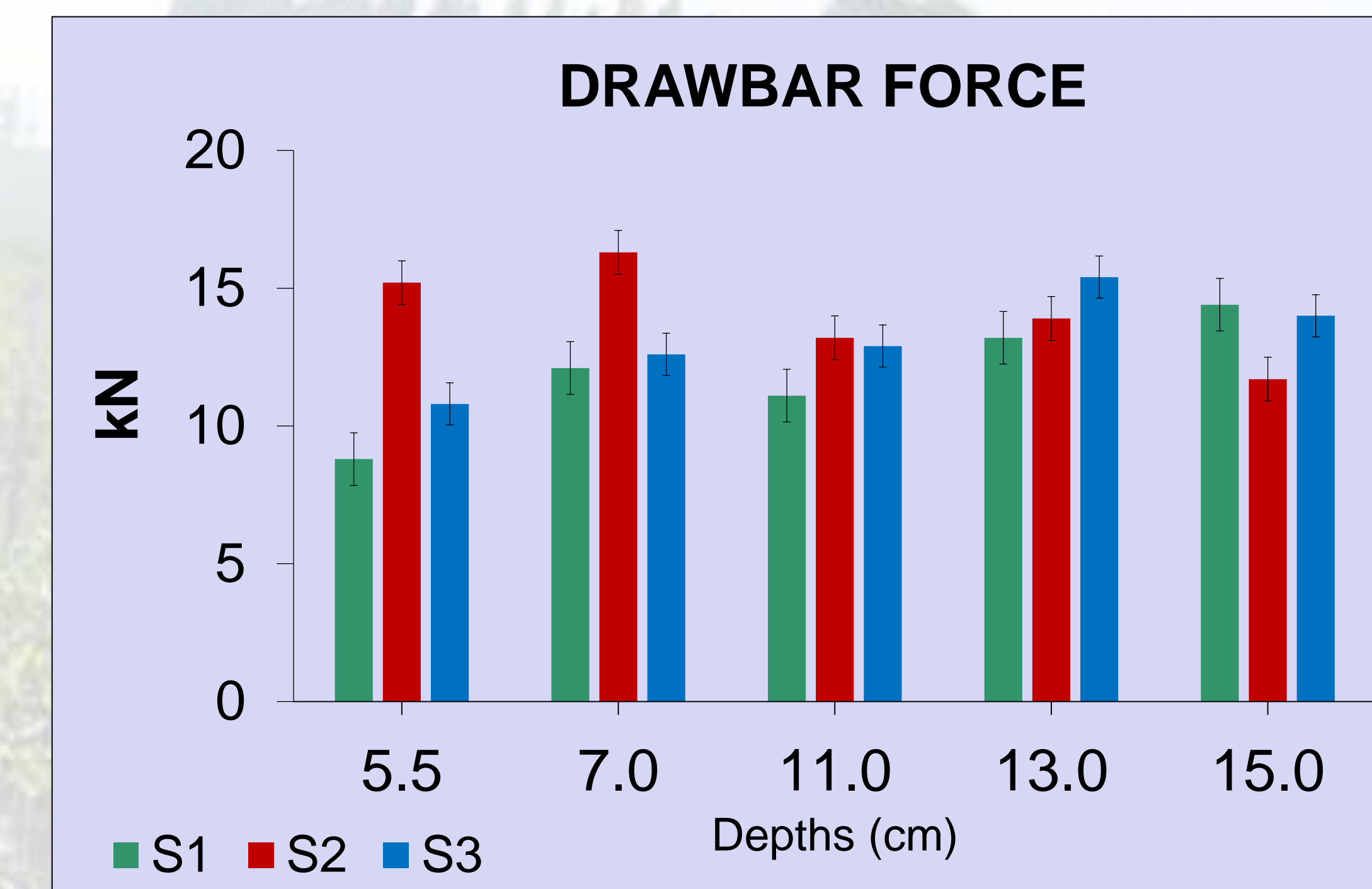
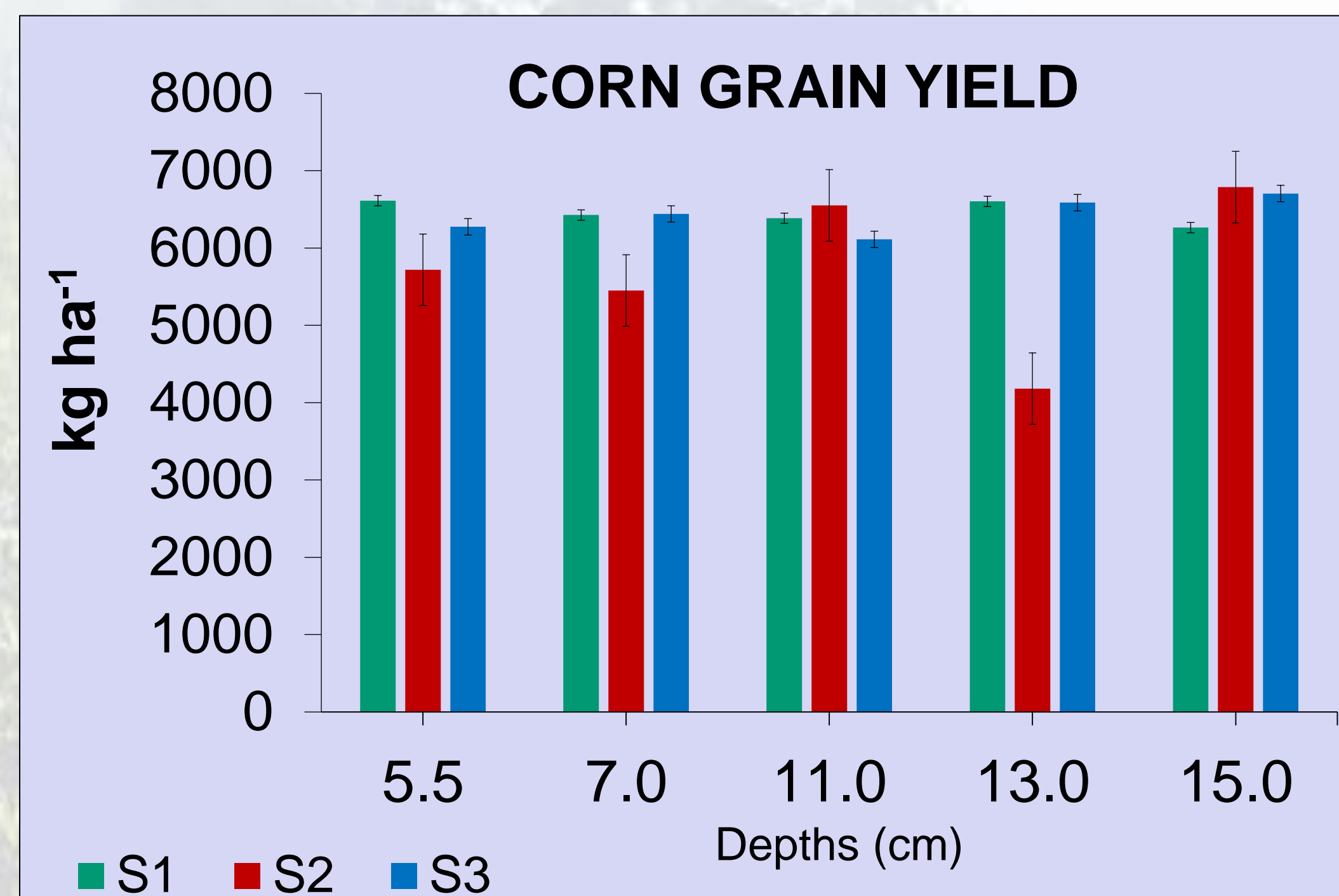
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Objective

To evaluate effect of 3 types of shanks at different depths on tractor performance, soil disturbance and corn grain yield.

Methodology

- Experiment site: UNESP/FCAV-Jaboticabal-SP-Brazil
- Tractor-seeder set: BM 125i-Valtra; JM6090PD-Jumil
- Soil: Eutroferric Red Latosol: 510 g kg⁻¹ of clay, 290 g kg⁻¹ of silt and 100 g kg⁻¹ of sand
- Soil moisture in the seeding (0-20 cm): 20.2 to 21.6%
- Soil mechanical resistance (0-20 cm): 0.78 – 2.63 MPa
- The furrow openers worked in 5 depths: 5.5; 7.0; 11.0; 13.0 and 15.0 cm.



Characteristics	Shanks (S)		
	S1	S2	S3
Shank thickness (mm)	13	10	13
Tip thickness (mm)	21	23	24
Shank cutting thickness (mm)	1.7	0.6	3.0
Tip cutting thickness (mm)	9	4.5	4.5
Angle of inclination (°)	17	29	27

