Winter Canola Establishment and Survival under 3 Tillage Systems.

Perkins, Oklahoma

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Dr. Tom Peeper, Mark Boyles

Oklahoma State University

INTRODUCTION:

Some growers have seen severe canola stand loss in No-Till wheat stubble.

OBJECTIVE:

This work was done to determine whether the stand loss was from emergence failure or death of established plants.

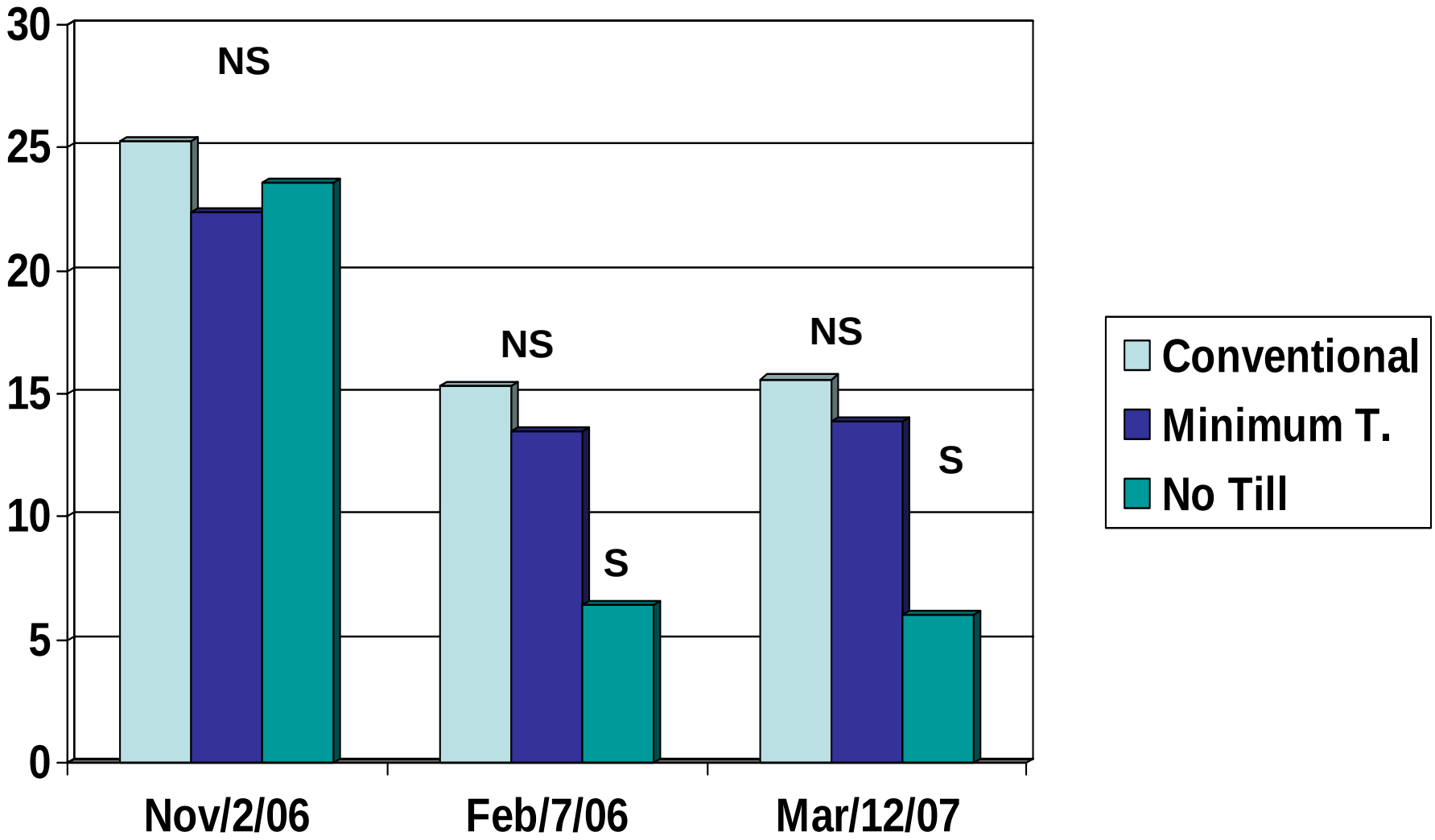
Methods

- DKW 13-86 RR was planted Oct 9th 2006 with Great Plains No Till drill.
- Conventional Tillage: Sunflower offset disk 6” deep, followed by 3 point offset disk 4” deep, followed by packer and light harrow.
- Minimum Tillage: 3 point offset disk 2.5” deep, followed by packer and light harrow.
- No Till: No soil disturbance since wheat harvest.

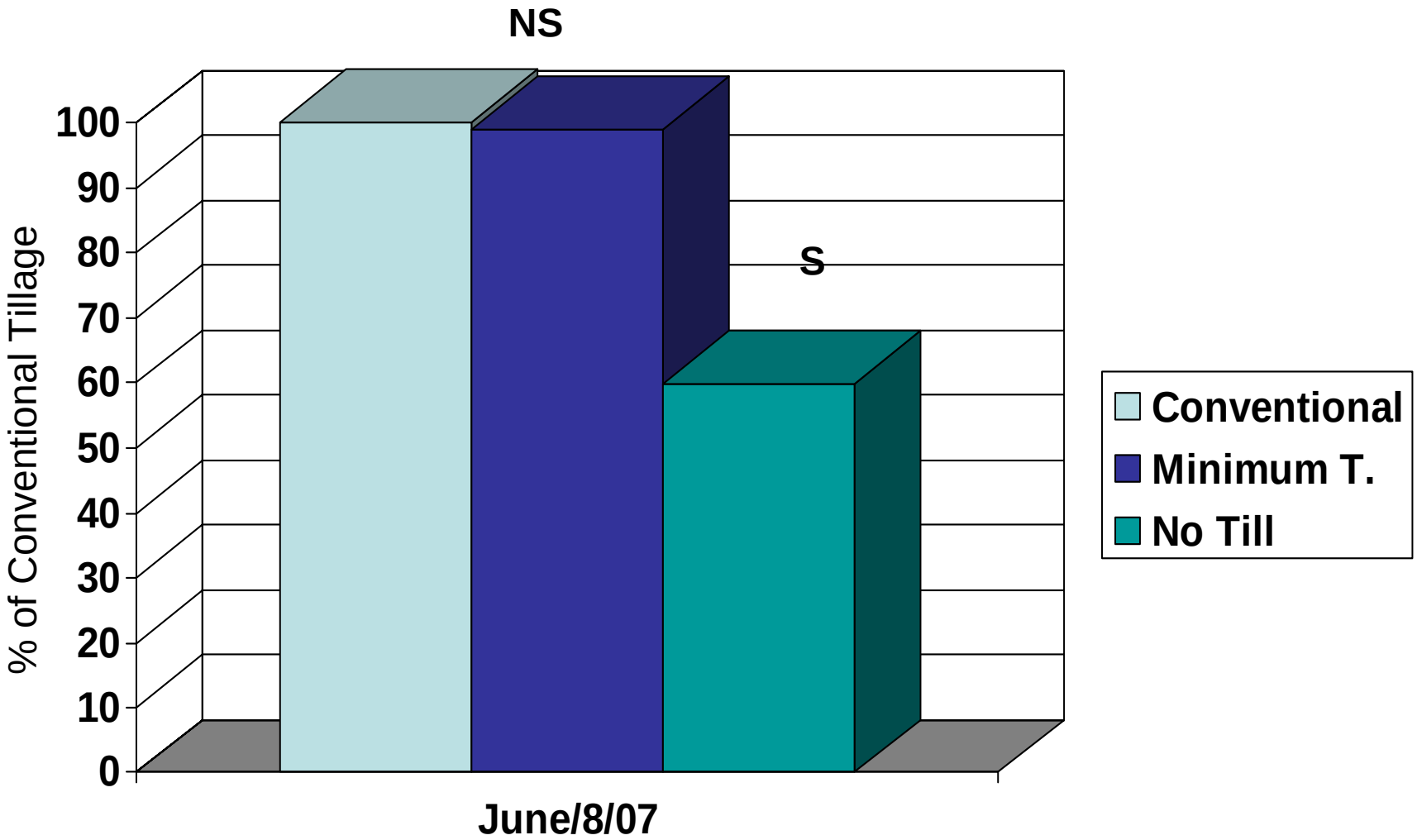
Methods

- **Conventional Tillage:** 10% wheat residue ground cover on soil surface at planting.
- **Minimum Tillage:** 25% wheat residue ground cover on soil surface at planting.
- **No Till:** 83% wheat stubble residue on soil surface at planting.
- Plants were counted in 3 one meter sections of row from each plot.
- The exact same row sections were counted on each date.

Canola plants per one meter of row.



Canola Yields
% of Conventional Tillage



Summary

- Excellent fall stands of canola were obtained in all three tillage systems.
- A 40% reduction in plants occurred in conventional and minimum till during the winter as big plants shaded out smaller plants. This is typical.
- In No-Till stand reduction was 70%.
- A significant reduction in yield was found in No-Till. No difference in yield was found between Conventional or Minimum Tillage.