

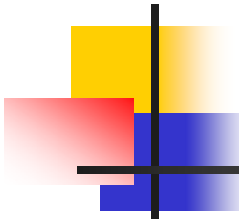
A green tractor is shown in a field, with a large rear tire prominently featured. The tractor is pulling a red implement. The background shows a clear blue sky and a field of crops. A text box is overlaid on the image, containing the title and author information.

# Effect of Wheel Traffic on Alfalfa

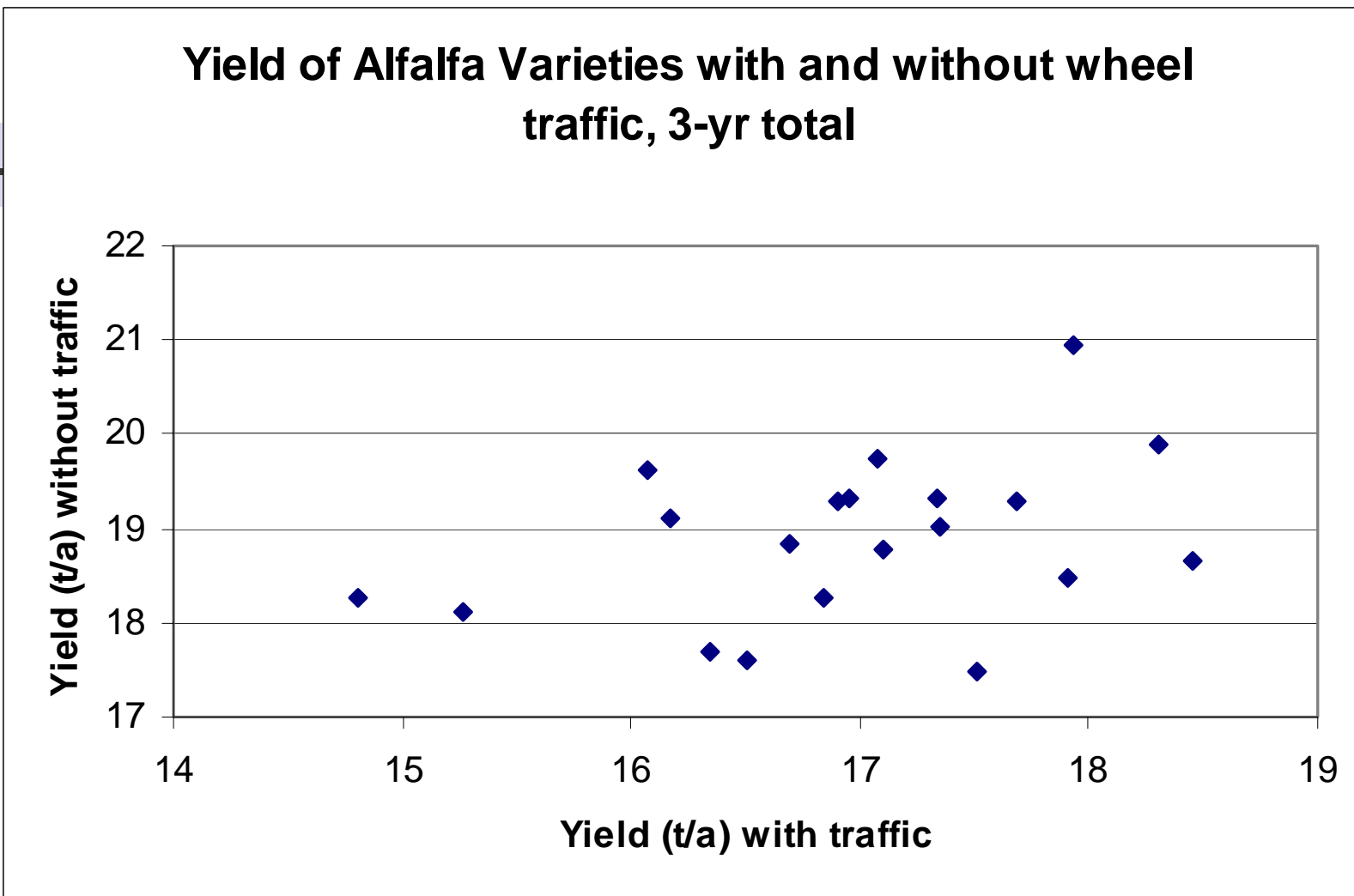
Dr. Dan Undersander  
University of Wisconsin



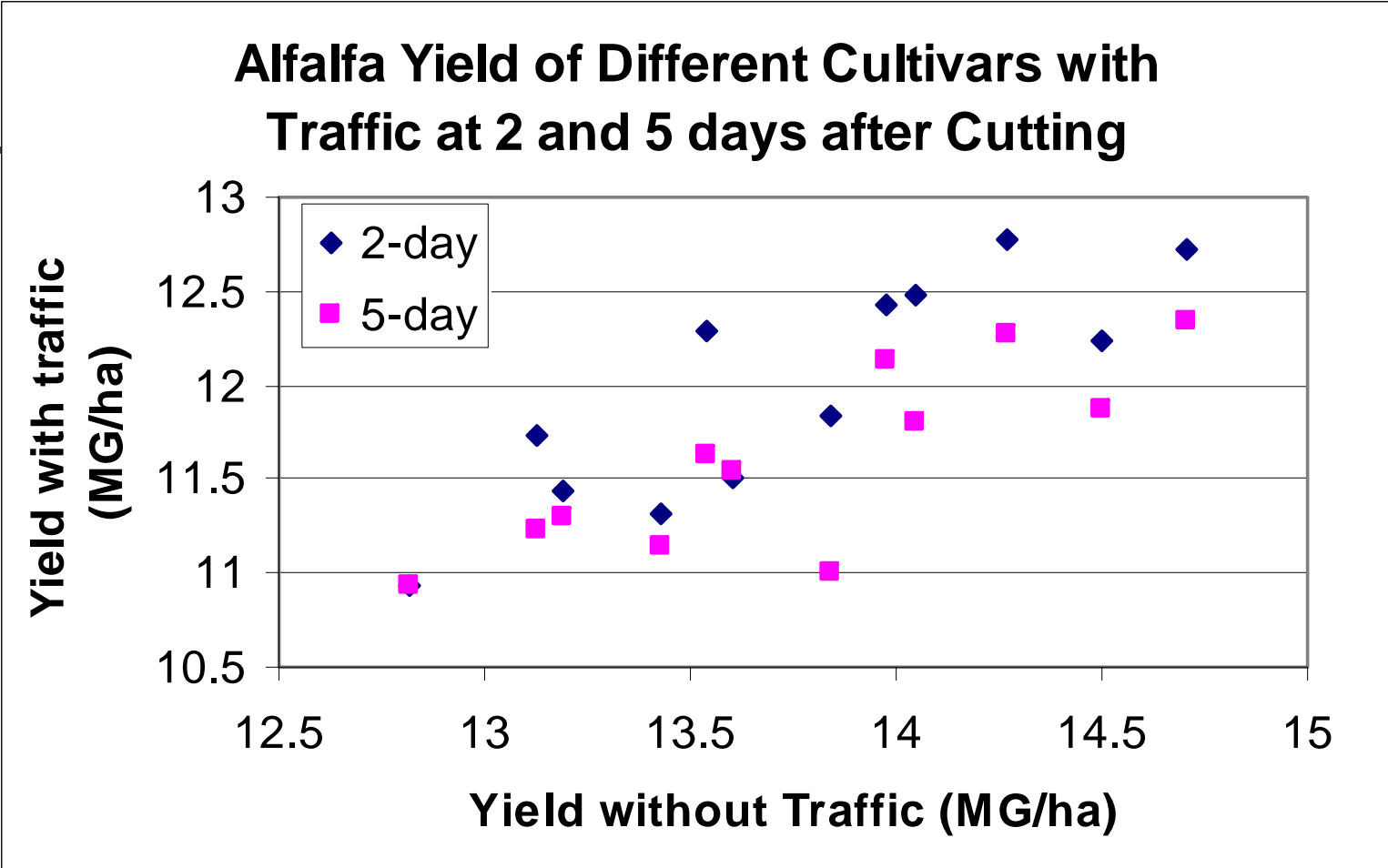
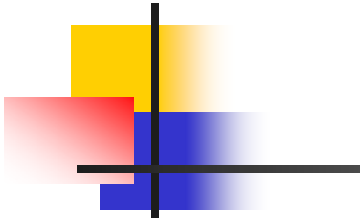




## Yield of Alfalfa Varieties with and without wheel traffic, 3-yr total



**UWEX**

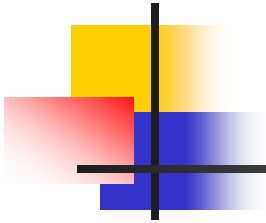


## % REDUCTION IN 2002 DUE TO TRAFFIC

STATE	SEED YEAR	VARIETY	VARIETY	RANGE of %	
		AVG.	AVG.	AMONG VARIETIES	
		2 DAY	5 DAY	2 DAY	5 DAY
IA	2000		30		18 to 41
	2001		22		14 to 34
WI	2000		9		0 to 19
	2001	2	9	0 to 15	2 to 22
MN	2001	11	29	0 to 21	12 to 52
NY	2001	3	25	0 to 7	14 to 41
NE	2001	0	0	0 to 13	0 to 14
OK	2002		9		4 to 12



**UWEX**



**UWEX**



# Managing to Reduce Wheel Traffic Loss

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- Minimize driving on field
  - Use smallest tractor for equipment
  - Merge windrows where possible
  - Go to larger equipment
  - Take most direct route to edge of field
  - Make road to drive on







# Managing to Reduce Wheel Traffic Loss

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- Minimize driving on field
- Do driving on field soon after harvest
  - Manage to dry forage quickly
  - Harvest for haylage or baleage
  - Use preservative and harvest wet hay
- Use of duals not recommended
- Apply manure quickly after cutting





# Summary

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- Wheel traffic can significantly reduce yield
- Wheel traffic damage appears to be mainly due to plant damage.
- Traffic longer after cutting does more damage
- Genetic differences exist for traffic tolerance



