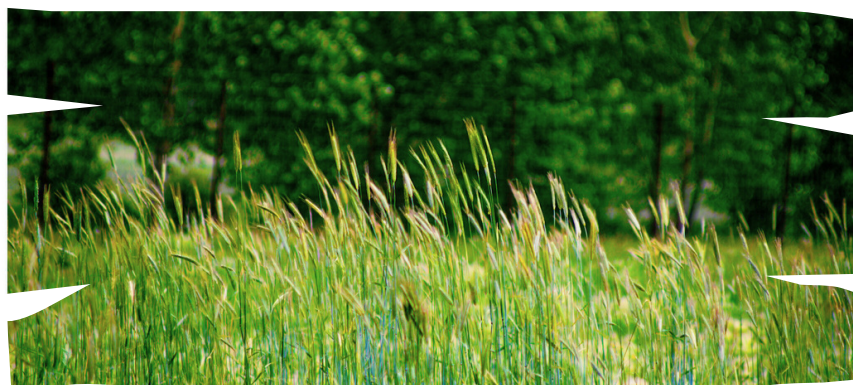


PEACE REGION LIVING LAB

Relay Cropping of Winter Cereals into Annual Cereals in the Peace Region

Relay cropping is when a cash crop is sown early in the growing season and within a month or so, a second crop is then seeded. This is conducted by taking advantage of the fact that the first crop planted has not grown tall enough to be ruined by machinery while placing the second crop into the ground. Possible benefits include the reduction of soil erosion from air and water after the end of the growing season and the maintenance of a living root system during the cold months of the year.



Task	Timeline	Details
Seeding	May 16 - June 19	Spring Wheat 65-131 lb/ac Winter Wheat 42-83 lb/ac Fall Rye 12-22 lb/ac Winter Triticale 25-50 lb/ac Per. Ryegrass 9-18 lb/ac 1" depth
Maintenance	May 10-June 24	Urea 110 lb/ac S15 80 lb/ac Glyphosate (pre-seed) 1 L/ac Coragen 0.71 L/ac
Harvest	Sept. 16 (spring wheat)	Straight-cut

Key Points:

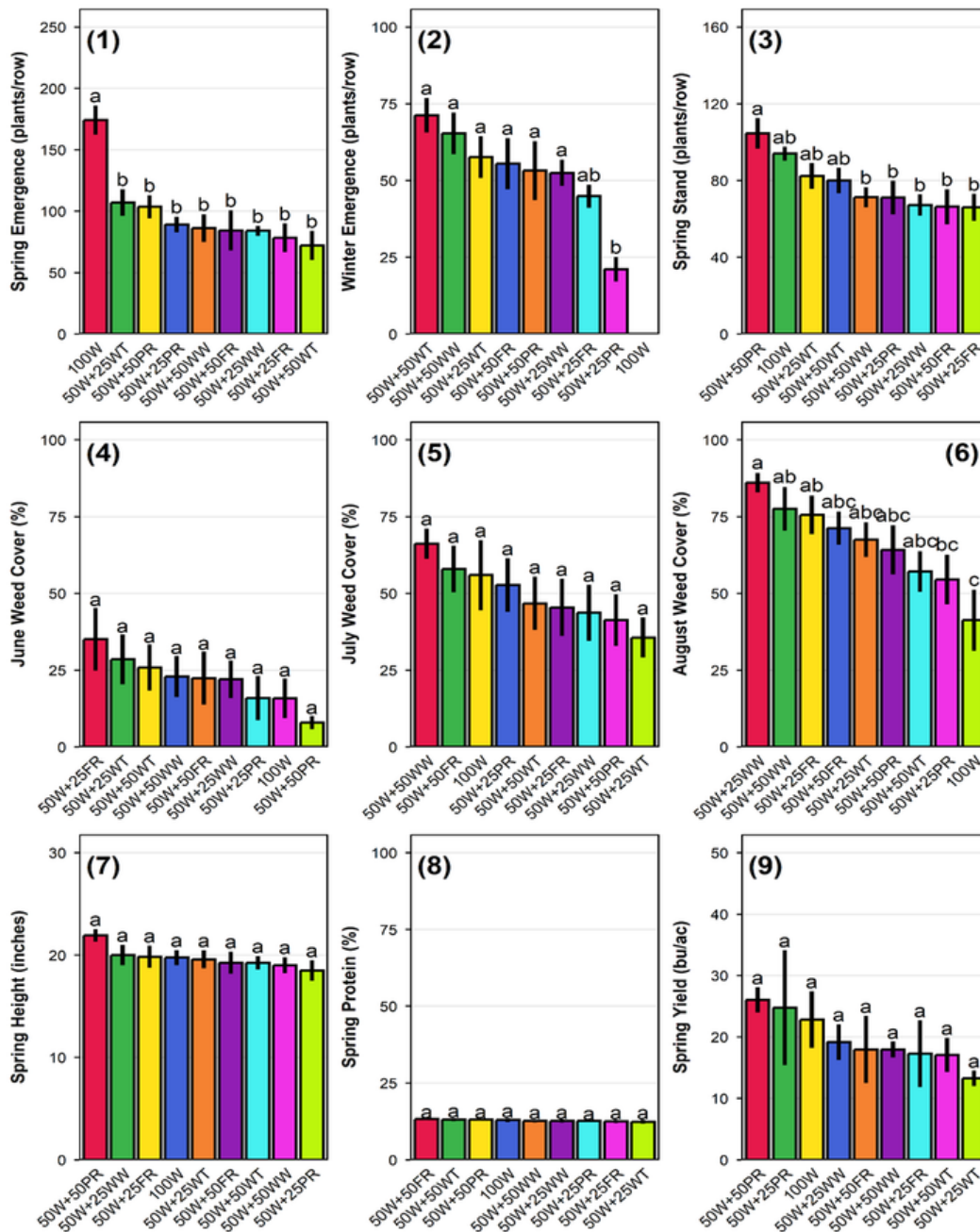
- Winter crops and seeding rates did not affect spring wheat yield or quality
- Relay cropping equipment did not harm spring wheat
- Weed cover differences only showed up in August



PEACE REGION LIVING LAB

Relay Cropping of Winter Cereals into Annual Cereals in the Peace Region

Legend: 100W = 100% Spring Wheat (Check), 50W+50FR = 50% Spring Wheat + 50% Fall Rye, 50W+50WT = 50% Spring Wheat + 50% Winter Triticale; 50W+50WW = 50% Spring Wheat + 50% Winter Wheat; 50W+50PR = 50% Spring Wheat + 50% Perennial Ryegrass; 50W+25FR = 50% Spring Wheat + 25% Fall Rye; 50W+25WT = 50% Spring Wheat + 25% Winter Triticale; 50W+25WW = 50% Spring Wheat + 25% Winter Wheat; 50W+25PR = 50% Spring Wheat + 25% Perennial Ryegrass
Note that percentages mean percent of recommended seeding rate



PEACE REGION LIVING LAB

Relay Cropping of Winter Cereals into Annual Cereals in the Peace Region

Our results demonstrate that varieties of winter crops and their seeding rates didn't affect emergence, height, protein content or crop yield in spring wheat in the first year of the project. Soil disturbance and compaction- from the additional equipment usage that relay cropping requires- did not negatively affect spring wheat performance. Weed cover in all plots increased throughout the growing season, but there were no significant differences until August. Winter cereal survival and yield will be assessed in the following year. Further research into relay cropping should focus on seeding timing for winter crops and their survival rates.

