

# Ongoing Research to Help Growers get the Cover Crop Nitrogen Credit ( $R_{\text{scavenge}}$ ) in Ag Order 4.0



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# Ag Order 4.0 Trials

'Merced'  
Rye

'Pacheco'  
Triticale

- **Compares**

- **Planted:** every 2 weeks Oct. 1 to Nov. 30, 2021

- **Data:** shoot biomass, C:N ratio, growth stage....

- **Affects:** 540,000 acres of irrigated land in California's  
Central Coast

# Cover crop requirements to qualify for $R_{\text{scavenge}}$

1.  $\geq 90$  days of growth during winter rainy period  
October<sup>↑</sup> to April
2.  $\geq 4500$  lb per acre of oven-dry shoot biomass  
non-legume<sup>↑</sup>
3. Carbon:Nitrogen ratio  $\geq 20:1$

# Thank you

**Calgreens**

**CALIFORNIA LEAFY GREENS RESEARCH BOARD**

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Ramy Colfer

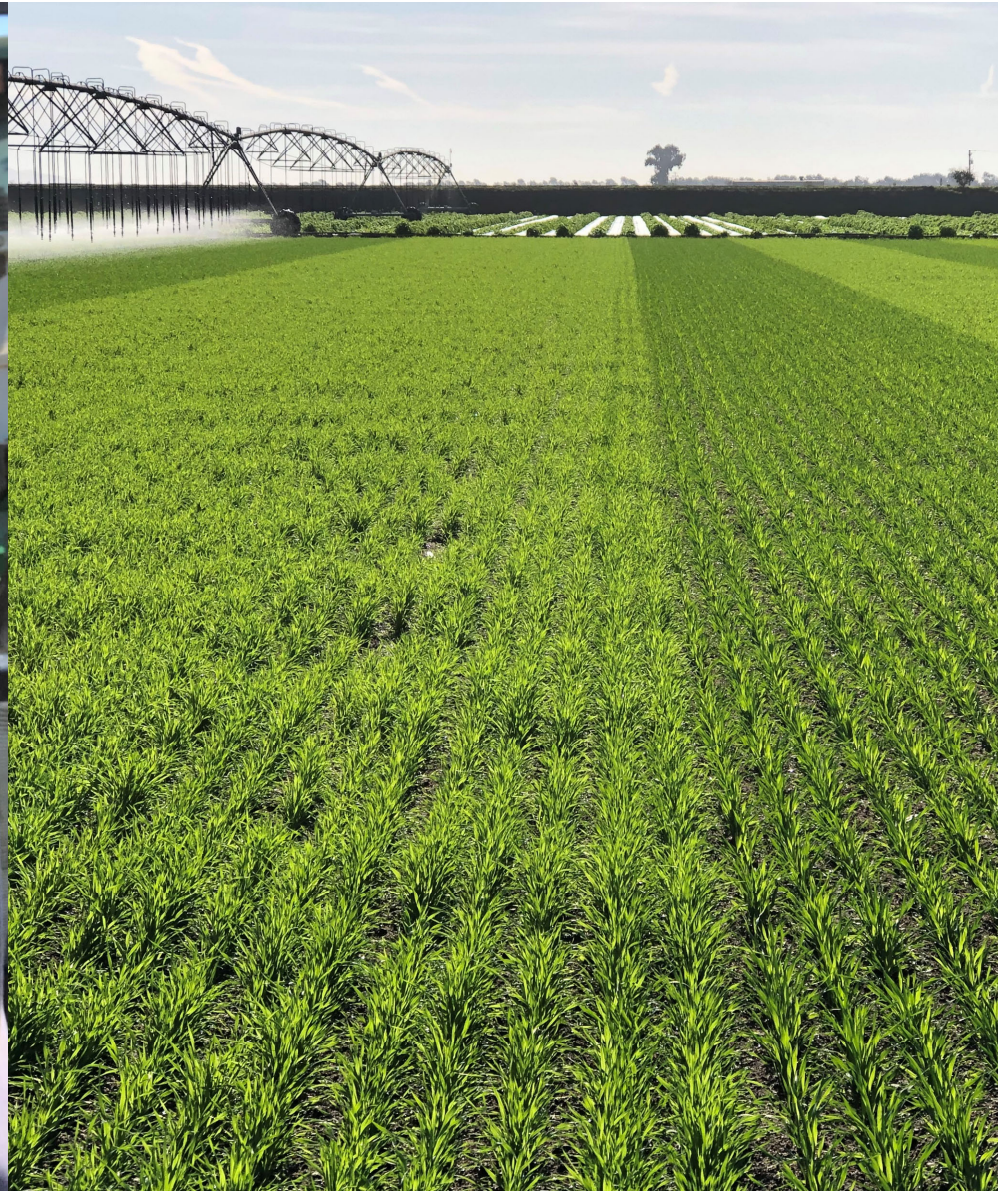


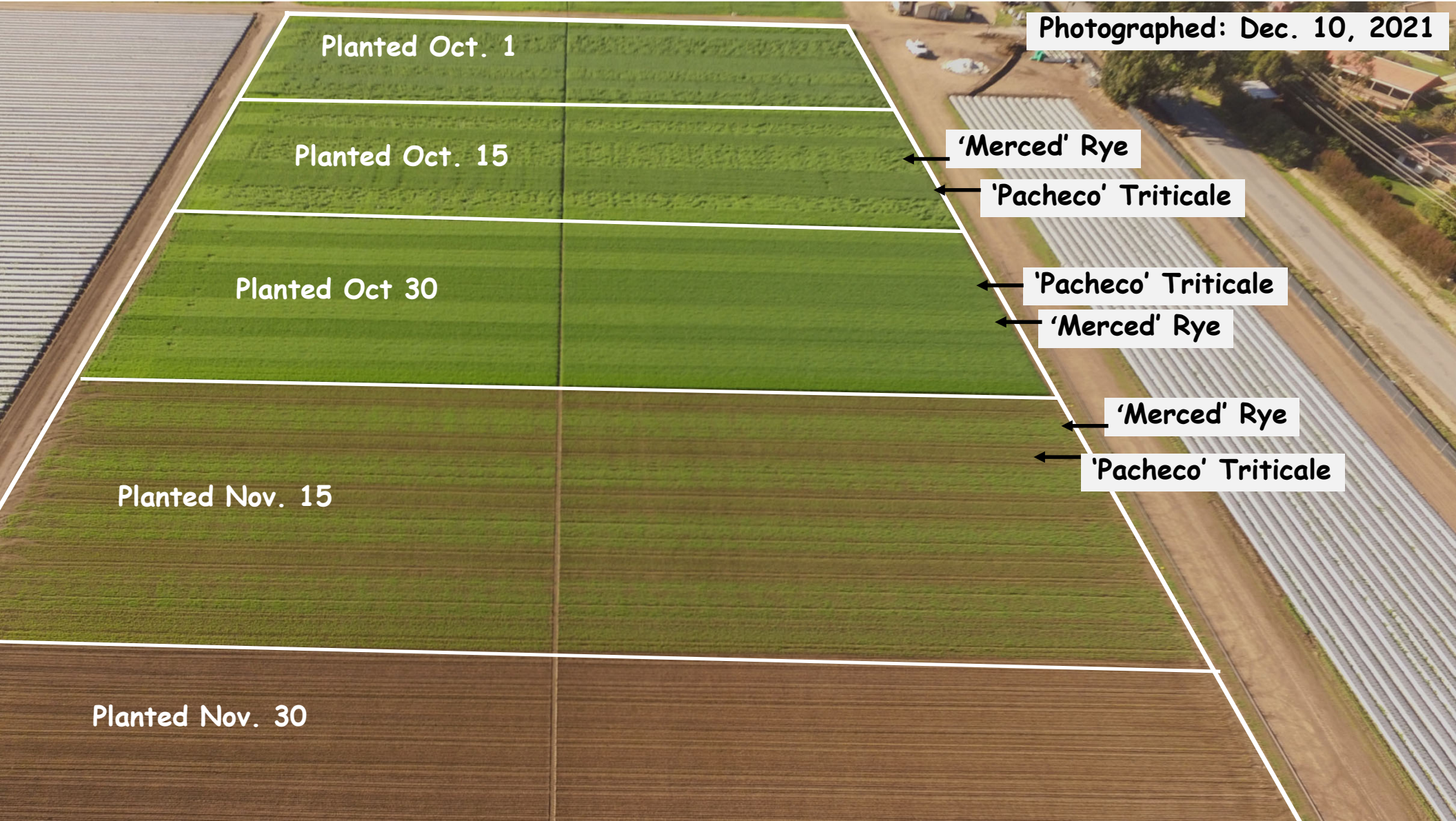
**WILBUR-ELLIS**

Gina Colfer









Photographed: Dec. 10, 2021

Planted Oct. 1

Planted Oct. 15

Planted Oct 30

Planted Nov. 15

Planted Nov. 30

'Merced' Rye

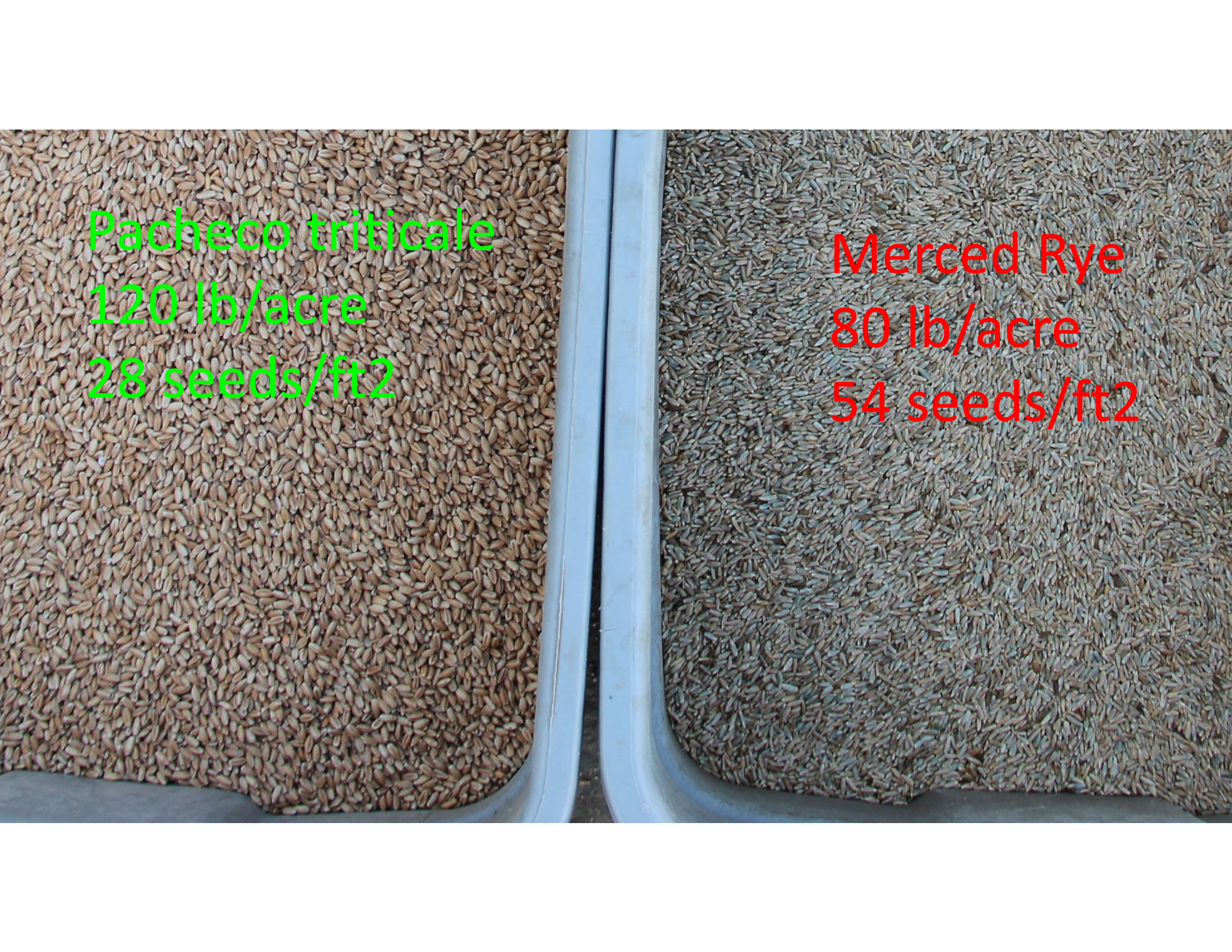
'Pacheco' Triticale

'Pacheco' Triticale

'Merced' Rye

'Merced' Rye

'Pacheco' Triticale

The image shows two light blue trays filled with seeds. The left tray contains Pacheco triticale seeds, which are larger and have a reddish-brown hue. The right tray contains Merced Rye seeds, which are smaller and have a greyish-brown hue. The text is overlaid on each tray in a color matching the seeds.

Pacheco triticale  
120 lb/acre  
28 seeds/ft<sup>2</sup>

Merced Rye  
80 lb/acre  
54 seeds/ft<sup>2</sup>



8 days after planting

Pacheco triticale

Merced Rye



**27 days after planting**

**Pacheco triticale**  
(slower to shade the soil  
means more weeds)

**Merced Rye**









**Pacheco triticales**

**Merced Rye**

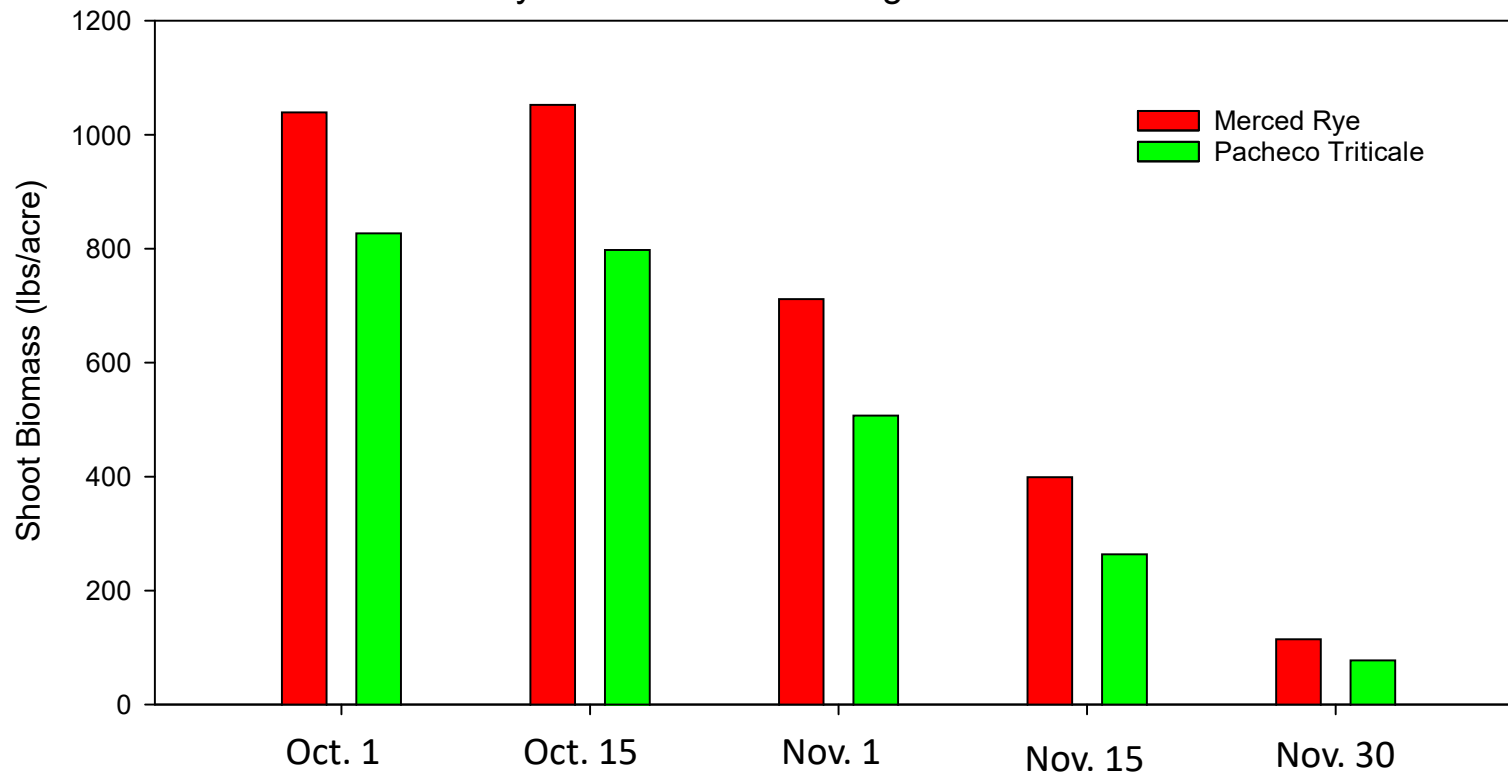


**Merced Rye (more lodging)**

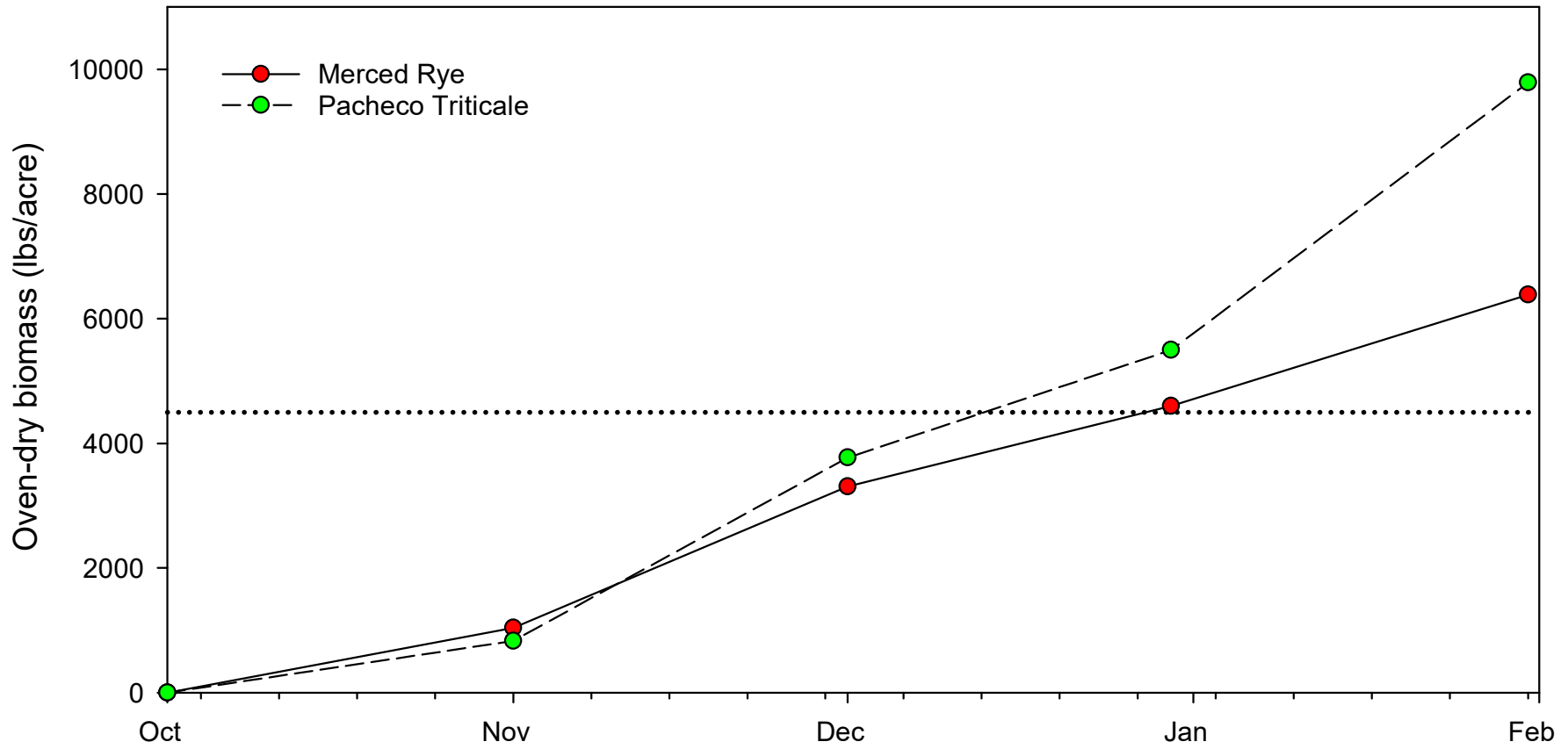
**Pacheco triticale**

Data

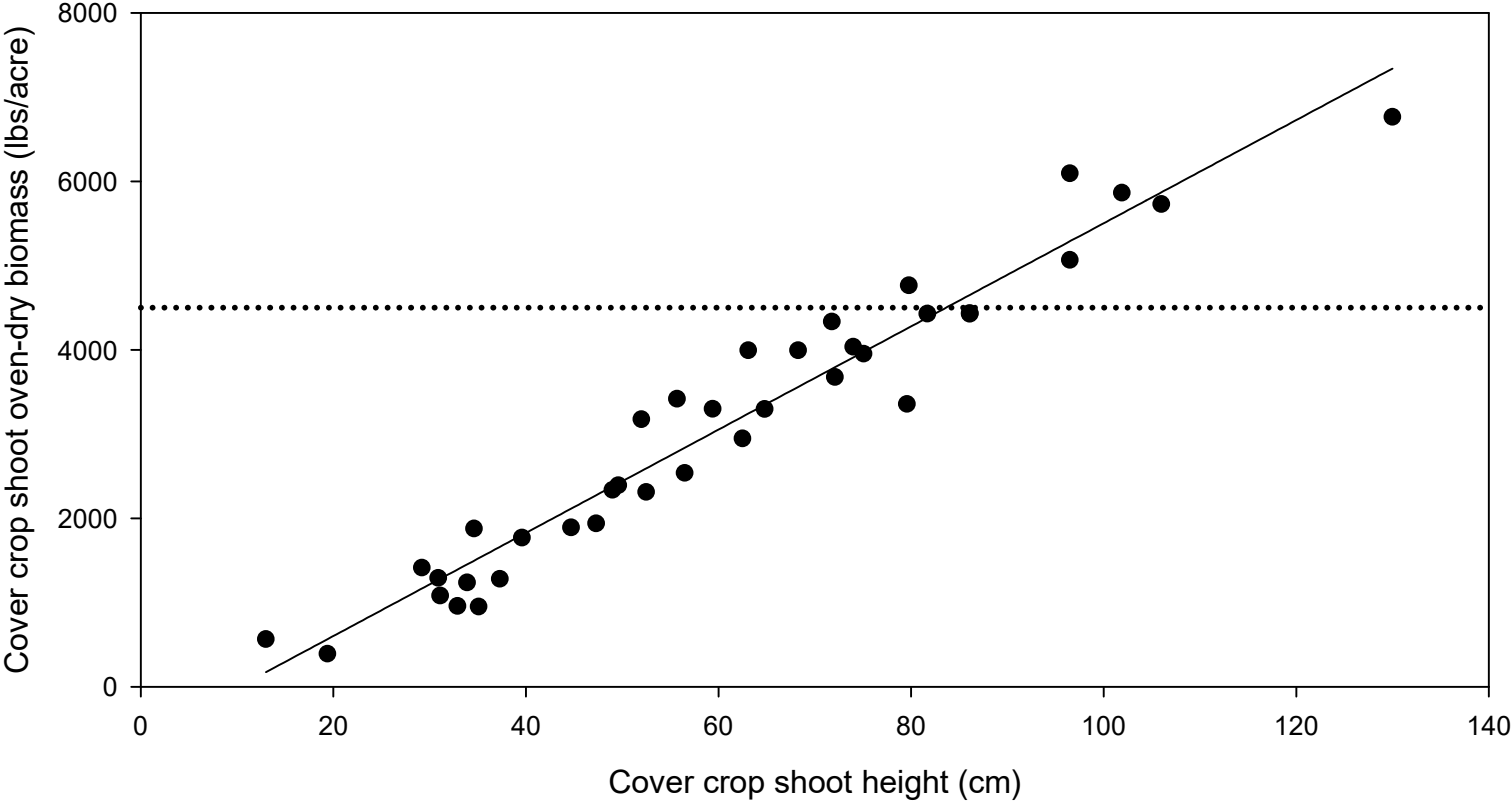
Oven dry shoot biomass during 1st Month of Growth

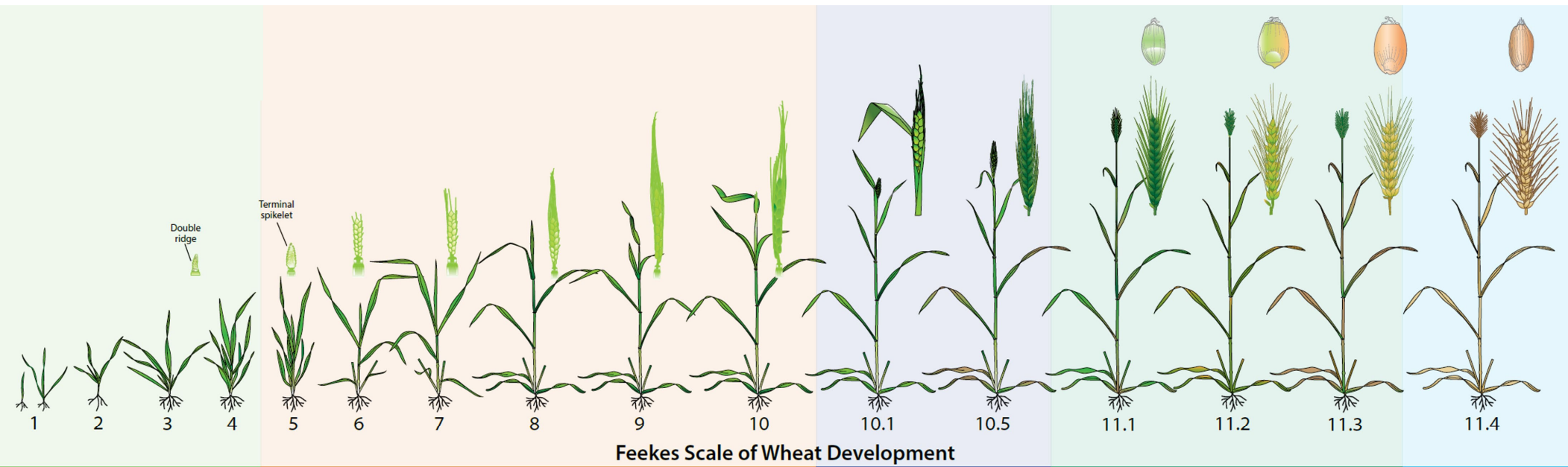


### Cover crop shoot biomass (Planted October 1, 2021)



**Relationship between Merced Rye Height and Biomass**

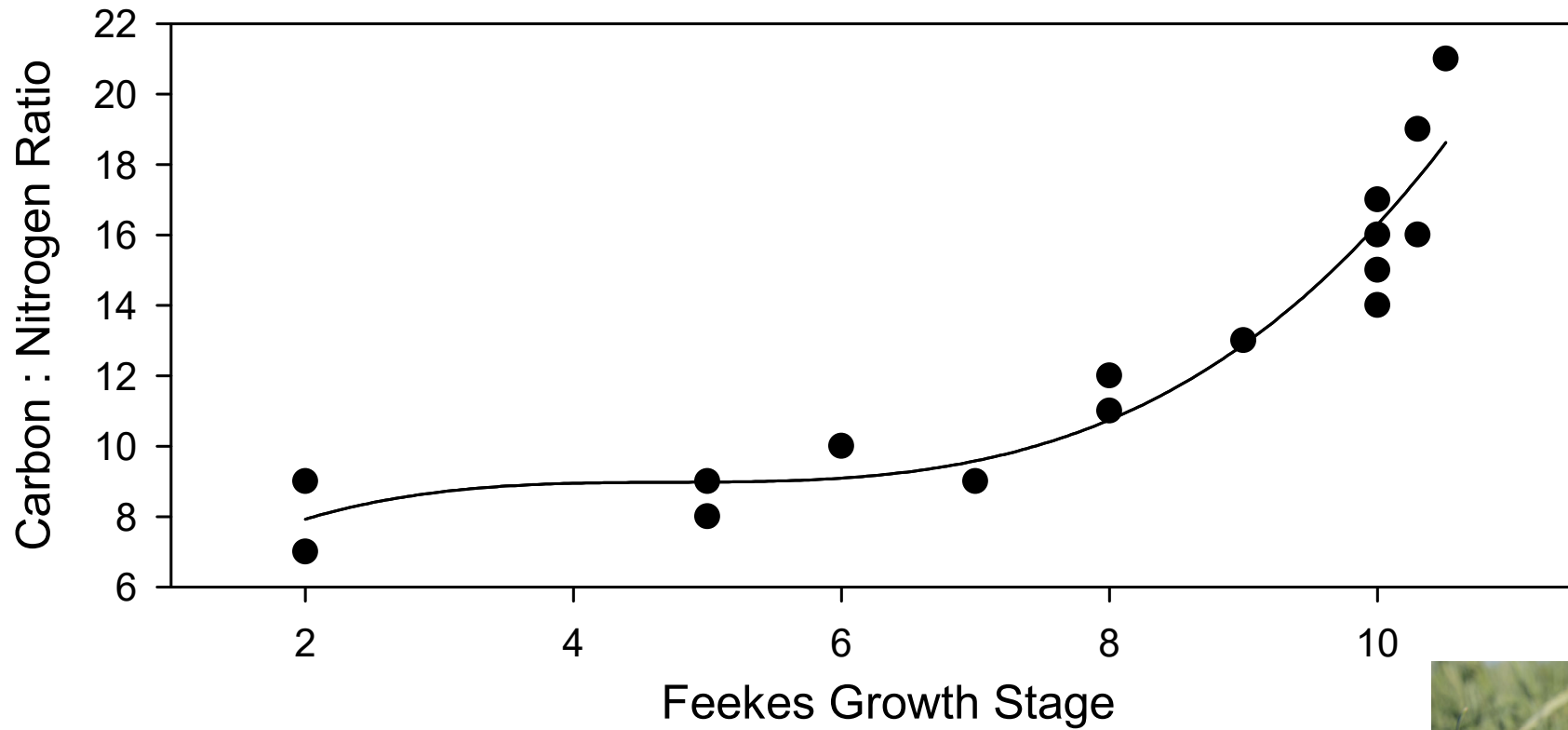




Source: Lollato R. 2018. Wheat Growth and Development, Kansas State University Agricultural Experiment Station and Cooperative Extension Service. MF3300



# Relationship between Feekes Growth Stage and Carbon:Nitrogen Ratio



Stay Tuned !