

# Christopher E. Nieters

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- Current Position:** New Crops Research Associate  
Plenty Unlimited Inc.  
1460 Commerce Drive  
Laramie Wyoming, 82070
- Contact:** 710 E Fremont Street, Apt A  
Laramie, WY 82072  
  
nietersc@gmail.com  
cell: (307) 871-7338  
linkedin.com/in/nietersc/  
www.chrisnieters.com
- Education:** University of Wyoming, Laramie, WY  
B.S. - Botany, 2017.  
Undergraduate research: Phenotyping below-ground *B. rapa* diversity and its influence on yield.
- Research Experience:** *Plenty Unlimited Inc, 2018- present:*
- Crop phenotyping via infrared gas analysis
  - Light quality effect on leafy greens and fruiting crops
  - Luminair characterization, light quality mapping/visualization
  - HVAC & fertigation control systems
  - Experimental design and execution
  - Programming and statistical analysis
- Ewers Plant Ecophysiology Lab, University of Wyoming, 2016-2018:*
- Phenotyping *B. rapa* accessions for above and below ground carbon partitioning
  - Quantifying PSII stress via chlorophyll a fluorescence using FluoPen/MultispeQ/LICOR 6400/Fluorcam
  - Sterile preparation of non-structural carbohydrate/pigment extraction
  - Diurnal CO<sub>2</sub> assimilation surveys of *B. vulgaris*
  - Soil, stem, and leaf water potential quantification
  - Remote sensing landscape scale vegetation (NDVI)

*Wyoming Natural Diversity Database (WYNDD), University of Wyoming, 2015:*

- Basic field collection methodology
- Locate and delineate remote wetland sites
- Characterize and assess soil for hydric markers
- Dataset management

**Presentations:**

American Society for Horticultural Science 2021. Denver, Colorado. Poster Presentation. *Cotyledon Competency in CEA: Light Response Curve Analysis across Emerging Mizuna Leaf Tissues*. Chris Nieters, Phoebe Killea, Alia Gonzales, Tessa Pocock.

American Geophysical Union 2017. New Orleans, Louisiana. Poster presentation. *Mind the Roots: Phenotyping Below-Ground Crop Diversity and Its Influence on Final Yield*. Christopher Nieters, Carmela Rosaria Guadagno, Sarah Lemli, Atefeh Hosseini and Brent E Ewers.

University of Wyoming Undergraduate Research Day 2017. Laramie, Wyoming. Poster presentation. *How can temporal dynamics in root growth improve model predictions of crop yield?* Christopher Nieters, Carmela R. Guadagno, Brent E. Ewers.

**Academic Awards and Nominations:**

2017. CWT Penland and Nyla Penland Memorial Scholarship for Outstanding Botany Senior Student  
2017. Wilhelm G and Ragnhild Solheim Memorial Scholarship  
2017. University of Wyoming Dean's List  
2016. University of Wyoming President's List  
2013 -2017. Hathaway Performance Scholarship

**Academic Service & Volunteering:**

- University of Wyoming Botany & Biology Club - 2015 - 2017
- Laramie Humane Society Dog Walker - 2018
- Plenty R-gonauts R Programming Learning Group - 2019
- Plenty Plant Physiology Discussion Group - 2020

**References:**

Available upon request