



Apr 12th, 9:00 AM - 10:00 AM

# Analysis of Invertase as a Candidate Gene for Chip Color in Potato

Nathan Pratt

*Illinois Wesleyan University*

Elizabeth Balser, Faculty Advisor

*Illinois Wesleyan University*

Follow this and additional works at: <http://digitalcommons.iwu.edu/jwprc>

---

Pratt, Nathan and Balser, Faculty Advisor, Elizabeth, "Analysis of Invertase as a Candidate Gene for Chip Color in Potato" (2008). *John Wesley Powell Student Research Conference*. 19.  
<http://digitalcommons.iwu.edu/jwprc/2008/posters/19>

This Event is brought to you for free and open access by The Ames Library, the Andrew W. Mellon Center for Curricular and Faculty Development, the Office of the Provost and the Office of the President. It has been accepted for inclusion in Digital Commons @ IWU by the faculty at Illinois Wesleyan University. For more information, please contact [digitalcommons@iwu.edu](mailto:digitalcommons@iwu.edu).

©Copyright is owned by the author of this document.

Poster Presentation P39

**ANALYSIS OF INVERTASE AS A CANDIDATE GENE FOR  
CHIP COLOR IN POTATO**

Nathan Pratt and Elizabeth Balse\*  
Biology Department, Illinois Wesleyan University

Candidate gene analysis is a means of determining whether a gene is involved in observed variation in a given trait or characteristic. In this study, invGE is an invertase gene hypothesized to be a candidate gene influencing the sugars stored in potato cells. Increased reducing sugar content is associated with darker chip color. Using primers for the 2nd and 3rd exons of the invGE gene, sequences were obtained and analyzed for substitutions correlating with phenotypic variation of chip color. Variation at these exons was associated with differing levels of reducing sugars, suggesting substitutions may be responsible for variation in chip color.