

The Potato Association of America
100th Annual Meeting – August 3, 2016
Grand Rapids, Michigan USA

Minutes from the 2016 Frank L. Haynes Graduate Student Competition Committee

Twenty students entered the 2016 Frank L. Haynes Graduate Student Competition. These students came to Grand Rapids from universities in the states of MI, ND, OR, PA, CO, WA, MN, ME and WI. Members of the committee for 2016 were Jay Anderson, Paul Bethke (chair), Nathan Butler, Dennis Halterman, Andrew Robinson, Helen Tai and Jonathan Whitworth. A minimum of six members of the committee attended each student presentation, and the commitment of the committee members to the competition is gratefully acknowledged. Students were evaluated using a consistent set of criteria that included clarity and completeness of the abstract, organization of the oral presentation, effective use of time and visuals, presentation style and potential impact of the research on the potato industry. The committee decided that it was appropriate to make four awards.

1st place: Venkata Charepalli from Jairam Vanamala's group at The Pennsylvania State University.
Title: A novel proteomic approach reveals molecular insights for anti-colon cancer efficacy of color-fleshed potatoes.

Venkata evaluated the effect of baked purple flesh potatoes against colon cancer stem cells in mice. He found that including purple potatoes in the diet decreased the amount of a molecular indicator of colon cancer stem cells and suppressed tumor incidence. Venkata presented his methods and findings clearly and with great enthusiasm.

2nd place: Curtis Frederick from Paul Bethke's group at the University of Wisconsin.
Title: Evaluation of hyperspectral reflectance for estimating dry matter and sugar concentration in processing potatoes.

Curtis evaluated hyperspectral reflectance imaging as a tool for estimating potato tuber dry matter content and sugar contents. He found that this method could be used accurately and rapidly to measure within tuber dry matter content in field, storage, or lab settings. Curtis explained a complex topic clearly, using carefully prepared visual aids and a relaxed presentation style.

3rd place (tie): Chandler Dolezal from Mark Pavek's group at Washington State University.
Title: The effects and economic implications of differing phosphorus fertilizer application techniques and rates.

Chandler examined how phosphorous application rate and method of application influenced potato growth, profitability and potential environmental impacts. His data showed that method of application had little effect, and high phosphorous rates were inadvisable. Chandler gave a compelling rationale for his research and presented his data in a way that was logical and easy to follow.

3rd place (tie): Kathryn Bolding from Mark Pavek's group at Washington State University.
Title: Cultural management of Clearwater Russet.

Kathryn described research on how seed spacing and nitrogen fertilization rate effected marketable yield and economic value of the recently introduced fry processing variety Clearwater Russet. Kathryn gave a poised, clear presentation that included recommendations for seed spacing and petiole nitrates that maximize economic value of the harvested crop.

Members of the committee noted that many graduate student presentations were very well done, and that the presentations reflected the diverse interests of the PAA. The members of the committee thank all of this year's entrants for their enthusiastic participation.

Paul Bethke, Chair, Frank L Haynes Graduate Student Research Award Committee