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

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Poster Presentation P39

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

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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.