## Yield Implications and Genetic Architecture of Source-Sink Regulated Senescence in Maize

## Mark Gee<sup>1</sup> and Mitchell Tuinstra<sup>1</sup>

<sup>1</sup>Department of Agronomy, Purdue University, West Lafayette, IN, USA

Alteration of senescence in maize has led to significant yield increases of commercial hybrids in through functional "staygreen". B73, a parent for many commercial varieties, manifests a Source-Sink Regulated Senescence (SSRS) and enters a rapid and premature senescence pattern when the sink tissue is disrupted. In this study, we explored the expression of SSRS in maize commercial germplasm and assessed the commercial relevance of the trait *per se* and in testcrosses through remote sensing under field conditions. We also explored the genetic architecture of the trait through association mapping approaches.