

Executive Summary – Investigations into Variables Affecting Tomato Solids

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This project aims to identify grower controlled variables that affect natural tomato soluble solids content in tomatoes. In cooperation with ConAgra Brands, Dresden, 196 sampling sites of the cultivar CC337 were selected from fields operated by 10 different growers. Due to lost markers and accessibility issues, only 157 sampling sites from 18 fields were used. Plants were assessed mid-season for disease/insect pressure and nutrient sufficiency. Yield, fruit quality, soil health and general soil qualities were assessed at harvest, which spanned from Aug. 28 to Sept. 26. Season-long weather data provided by Weather Innovations Consulting LP was included in the data set and a survey regarding agronomic practices and field history is under way. Upon completion of data collection, data will be subjected to principal component analysis. Initial lab reports indicate that soluble solids content ranged from 3.5 to 5.6%, averaging at 4.5%, but no inferences as to which variables may be affecting solids can be made until statistical analysis is completed.