1125-VP-1097 **Mitra L Devkota*** (mdevkota@shawnee.edu), 940 Second Street, Mathematical Sciences, Shawnee State University, Portsmouth, OH 45662, and **Gary D Hatfield**. *Study of Autocorrelation of Regression Residuals using Crop Residue Yield Potential.* Preliminary report.

In this study, we studied the autocorrelation of regression residuals using the crop residue yield potential data for North Central region of the USA. Ordinary Least Squares (OLS), Geographically Weighted Regression (GWR), Conditional Autoregressive (CAR), and Simultaneous Autoregressive (SAR) models were fitted for the crop residue yield potential as a function of two climate variables (temperature and precipitation) of crop growing season. Moran's I and Geary's C were used to test the spatial autocorrelation of the regression residuals. (Received September 14, 2016)