Geostatistical Characteristic of Spatial Distribution of *Frankliniella occidentalis* Immatures for Precision Density Estimation in Greenhouse Cucumbers

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Study was conducted in three commercial cucumber greenhouses to examine thrips' density estimation on Cheju Island, Korea. Immature stage of thrips on leaves were counted and conducted spatial pattern analysis by geostatistical methods – variogram modelling. We examined three variogram models (spherical, exponential and Gaussian) and estimated their parameters. Best model for describing the population dynamics of thrips was selected based on MSE value and range which provides how well the model fits the variogram data. Using this model, kriging analysis was performed. Validation of density estimation was also conducted with independent data sets that not used in model parameters estimation. This study provide information of how geostatistical methods for insect pest management can be implemented in greenhouses in Korea.