This poster describes a study conducted on Shaute Baseball Field, Mansfield, Pennsylvania. Soil samples were taken at 20ft intervals using a soil probe then tested for pH and nitrogen in the laboratory. The resulting data were used to create contour maps. Visual examination of the maps suggest a negative correlation between pH and nitrogen content. Correlation is not causation meaning just by looking at the graphs one cannot tell if the pH values are the reason why the nitrogen content is high.

Further research might include: 1) conducting tests to determine the cause/s of variable pH values and nitrogen content; and 2) conducting tests to determine the impact of low drainage on variability of pH and nitrogen values across the field.

This study was conducted to determine if there was variability in pH and nitrogen content at Shaute field and if so, was there any correlation between the two.

Field Collection
Formed a 20ft grid on Shaute baseball Field with tape measures. Collected soil samples at grid intersections with a soil probe and placed in properly labeled and sealed bags.

Lab Testing
Both pH Test & Nitrogen testing was conducted using the LaMotte Garden Guide Soil kit.

Mapping
An excel file identifying each grid point by latitude and longitude, pH value and nitrogen content was input to the Surfer computer program which was used to create Contour maps.

Visual examination of the contour maps suggests a negative correlation between field pH values and nitrogen content, although the reason for correlation is beyond the scope of this project. Poor drainage is an issue at Shaute Field. A restrictive layer of very fine silt was noted at a depth of around 10 inches across the field. It is possible that poor drainage is responsible for the accumulation of nitrogen and increased acidity. Future research should address the impact of soil saturation in regard to nutrient cycling and soil acidity.

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