



Intro to Ag - Precision Agriculture - Lesson 1 ***Vocabulary***

Traditional Farming Practice – A farm management practice in which each herd, field or the entire farm operation is viewed as a single uniform environment managed in the same manner.

Precision Agriculture – A farm management practice in which each field is analyzed to identify micro environments that require different management to increase profitability by placing the exact level up inputs to produce the greatest yield at the least expense through the use of Information Technology and GPS.

Precision Farming: Managing crop production inputs (seed, fertilizer, lime, pesticides, etc.) on a site-specific basis to increase profits, reduce waste and maintain environmental quality.

ROI – Return On Investment – The amount of increased income due to an investment.

ROI Ratio - The amount of time it takes for the increase in profits to pay for the initial investment.

GPS – Global Positioning System – A constellation of approximately 30 well-placed satellites that orbit the Earth making it possible to pinpoint the geographic location of a receiver.

GPS Receiver – An antenna that communicates with the GPS satellite constellation.

AOI – Area Of Interest – A defined area used in a GIS system for analysis. A field is an example of an AOI.

Variability – differences in conditions within an area of interest. May be soil type, fertility, moisture retention, or other agronomic or environmental factors.

Seeding Rate – Determines what the Planting Population is. The higher the seeding rate, the more seeds per acre are planted.

Innovation – The creative adaptation of new technologies and design to provide a functional solution.

Sensor – A piece of equipment that measures something such as a weight, volume, density, or level of something.

Meter – A piece of equipment that applies an agronomic input such as seed, fertilizer, insecticide or herbicide.

Monitor – A piece of equipment that displays information.

Trilateration – The calculating of a location utilizing 3 or more positioning satellites.

Triangulation – The calculating of a location utilizing 3 or more known locations on the earth's surface.