

## So Where Is Precision Ag?

...a brief history, current expression and possible future directions

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...is the **Technical Cart** in front of the **Scientific Horse**?

Now that precision agriculture is in its second decade, where are we? Yield mapping is gaining commonplace status for many crops and locales. Site-specific management of field fertilization has a growing number of users. Remote sensing applications are maturing. Irrigation control, field leveling, variable rate seeding, disease/pest modeling, stress maps and a myriad other computer mapping uses are edging over the horizon. However, it is important to keep in mind that site-specific farming *isn't just a bunch of pretty maps, but a set of new technologies and procedures linking mapped variables to appropriate management actions*. These revolutionary approaches are ushering in such radical changes as a shift in agriculture research from a historical emphasis on traditional experimental fields to "on-farm" research/studies; a possibility of "as applied" mapping for sensitive field inputs; a movement from traditional multivariate statistics to knowledge engines that assess patterns and relationships

within and among map layers; and even a latent challenge of the 400 year-old Cartesian coordinate system for geographic referencing that utilizes hexagons and polyhedrals for detailed modeling of agricultural flows and cycles. *This presentation investigates the legacy of Precision Ag's unique expression of Geotechnology, its current challenges and probable future directions.*

Online References (contact the presenter for URL to download the PowerPoint slide set used in the presentation)

- **Beyond Mapping III**, online compilation of Beyond Mapping columns appearing in GeoWorld magazine 1996 to present with many addressing Precision Ag topics. <http://www.innovativegis.com/basis/MapAnalysis/Default.htm>
- **Map Analysis** textbook published by GeoTec Media; J.K. Berry, 2007; provides a structured view of grid-based map analysis with software, database and "hands-on" exercises. <http://www.innovativegis.com/basis/Books/MapAnalysis/Default.htm>
- **Applying Spatial Analysis for Precision Conservation across the Landscape**, J. of Soil and Water Conservation, Nov/Dec 2005, Vol. 60, No. 6, pg 22-29. J.K. Berry, J. A. Delgado, R. Khosla and F.J. Pierce. <http://www.jswnonline.org/content/60/6/363>
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