Geographic Information and Spatial Technologies Workshop

Ag Canada — October, 2006 — Winnipeg, Manitoba, Canada

Keynote Presentation on

Geotechnology in Agriculture

Getting It Right



Joseph K. Berry

W. M. Keck Visiting Scholar in Geosciences, Geography, University of Denver Principal, Berry & Associates // Spatial Information Systems

Email jberry@innovativegis.com — Web www.innovativegis.com/basis/

See http://63.78.10.20/basis/Workshops/AgCanada06/ for PowerPoint and Reference links

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, on-farm studies, disease/pest modeling, stress maps and a myriad other computer mapping uses are on 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. It integrates three existing spatial technologies: global positioning system (*GPS*), geographic information systems (*GIS*) and intelligent devices and implements (*IDI*) for on-the-fly data collection, variable-rate application and a much better understanding field conditions, characteristics and potential. *This presentation investigates the legacy and similarities/differences in the Precision Ag expression of geotechnology, its current challenges and probable future directions.*



Joseph K. Berry is a leading consultant and educator in the application of Geographic Information Systems (GIS) technology. He is the principal of BASIS, consultants and software developers in GIS technology and the author of the "Beyond Mapping" column for GeoWorld magazine for over sixteen years. Since 1976, he has written more than two hundred papers on the theory and application of map analysis techniques, and is the author of the popular books

<u>Beyond Mapping</u>, <u>Spatial Reasoning</u> and <u>Map Analysis</u> (in press). Dr. Berry holds a B.S. degree in forestry from the University of California, Berkeley, a M.S. in business management and a Ph.D. emphasizing remote sensing and land use planning from Colorado State University. <u>www.innovativegis.com/basis/basis/cv_berry.htm</u>