

Contact Information

Precision Agriculture Steering Committee members at the University of Kentucky College of Agriculture:

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For more information...

Check out our website at:

<http://www.bae.uky.edu/~precac/>

Through the Kentucky Cooperative Extension Service, the following publications are now available:

- AGR-1: 2000-2001 Lime and Fertilizer Recommendations
- AGR-5: When to Apply Lime and Fertilizer
- AGR-16: Taking Soil Samples
- AGR-57: Soil Testing: What It Is and What It Does
- PA-1: Elements of Precision Agriculture: Basics of Yield Monitor Installation and Operation
- PA-2: Guidelines for the Adoption of Precision Agriculture Practices
- PA-3: Elements of Precision Agriculture: Lightbar Guidance Aids
- PA-4: Implementing Precision Agriculture: Choosing the Right Lightbar
- PA-5: Elements of Precision Agriculture: GPS Simplified

Also, download our economic analysis tool:

Precision Farming Economic Worksheet

<http://www.uky.edu/Agriculture/AgriculturalEconomics/data/preciseinstr495.html>

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UK UNIVERSITY OF KENTUCKY
College of Agriculture

**PRECISION
AGRICULTURE**

Developing and Assessing Precision Agriculture Technologies for Kentucky Producers

Project Goal

The overall project goal is to develop and assess precision agriculture equipment and technologies for implementation on Kentucky farms to enhance profitability and improve environmental quality.



Introduction

Recently the agricultural machinery and service industries have focused on the development of equipment, software and methodologies to implement a management approach to agricultural production now known as site-specific farming and/or precision agriculture. This technology affords farm managers the opportunity to track and manage the spatial variability that occurs within cropland. With the evolution of this technology numerous opportunities exist to enhance profitability as well as reduce the environmental impact of contemporary production practices.

Project Objectives

- develop criteria, sensing technologies, decision tools, and educational programs that help farmers manage the variability that exists within production units and to assess the economic viability of those practices
- develop standards and protocols for the collection, analysis and correction of variability within a field and/or over time to enhance crop production
- develop and evaluate site-specific production technologies to enhance environmental quality.

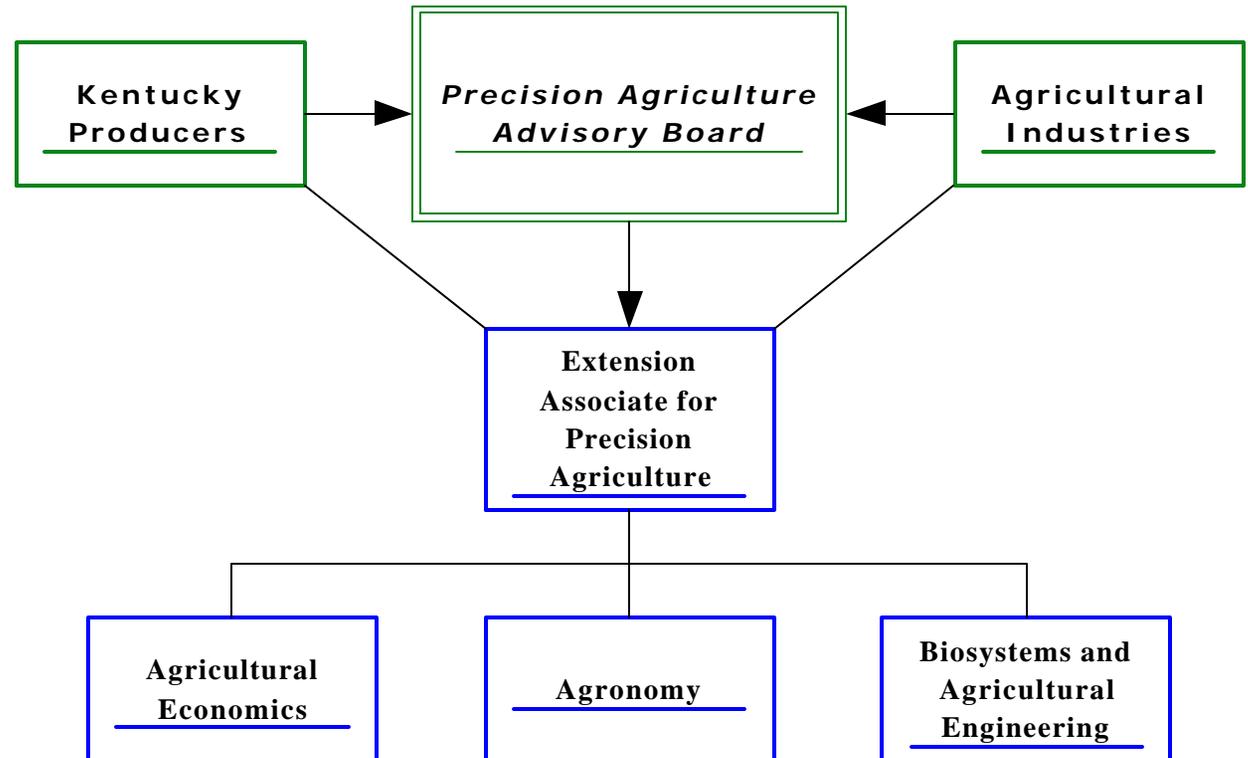
Approach

This project is coordinated by the UK Precision Agriculture Steering Committee (PASC), with input from cooperating researchers, Extension personnel, Extension Agents, industry representatives, and producers from across the state. PASC is made up of interdisciplinary team of research and extension faculty within the Agricultural Economics, Agronomy, and Biosystems and Agricultural Engineering departments of the UK College of Agriculture.

The focus of this project is to provide the research findings directly to Kentucky producers and service providers via the Cooperative Extension Service, and to other researchers in the U.S. and around the world via peer reviewed journals. It is also important that the producers and service providers advise PASC as to their needs, thus an Industry Advisory Board has been established.

To facilitate the sharing of information, and to foster cooperative planning efforts, the PASC meets at least four times annually to review project progress. The Industry Advisory Board provides feedback to the researchers concerning the work being conducted and the applicability to production in Kentucky.

A project of this size and scope requires coordination and sharing of resources. To coordinate and facilitate



this work, our Extension Associate for Precision Agriculture, Dennis Hancock assists the PASC by disseminating the results of these studies as well as facilitating the feedback provided by the Industry Advisory Board.

Cooperating investigators report the progress of their work annually to colleagues, students, administrators, producers, service providers and interested government agencies at a statewide conference on Precision Agriculture. Findings from these efforts will then be incorporated into Extension bulletins and publications that will be assembled into a Precision Agriculture Handbook. Results will also be utilized to aid in the development of economic decision support tools. This information will then be made available for distribution to farmers, service providers, crop advisors, and Extension Agents through trainings, field days, and farm visits.



Project Status

This project, identified by Kentucky producers, the agricultural industry, and researchers at UK, was funded by special grants from USDA/CSREES. Since starting in the 2000 crop year, this grant has completed its first three phases and has now entered phase 4. With the preliminary information from those first 29 research projects in hand, information is beginning to be assembled and disseminated.