

**Joshua L. Posner**  
**Professor, Agronomy Department**

**Academic and Professional History:**

- Completed a PhD in Agronomy at Cornell University with a minor in agricultural economics in 1978.
- For the next 10 years worked as part of interdisciplinary farming systems teams in Honduras, Senegal and The Gambia.
- In 1988, joined University at Wisconsin-Madison campus as the first “cluster” hire to work in “Farming Systems” with an animal scientist and social scientist.
- In 1993 and again in 1998 took leaves of absence to work initially in Bolivia and then in Peru at the International Potato Center to direct their Andean natural resources research consortium. The consortium includes over 70 Andean organizations, primarily NGOs and national universities.

**Research Focus:** For the past 20 years, my research program has been focused at the interface of farming strategies and natural resource conservation. Domestically my work has looked at common crop and livestock production systems in the upper Midwest and their farm-level impact on soil and water conservation, soil health, pesticide use, and nutrient cycling. Specifically this has meant looking at conventional grain and dairy systems, as well as rotational grazing and organic production systems. Newly initiated themes include nutrient trading between grain and dairy farms and the restoration of oak savanna through managed grazing. Internationally, my work has focused on steep sloped production systems, primarily in the high Andes. In this arena, larger scale environmental impacts resulting from farming systems have been studied (biodiversity, carbon sequestration, surface hydrology). Specifically, we have worked on upper watershed management for improved stream flow and paramo grassland management for biodiversity conservation and carbon sequestration.

**Graduate Training Focus:** The majority of my students have been enrolled in multidisciplinary graduate programs (Land Resources Program, Conservation Biology and Sustainable Development Program, or the Economic Development Program). My focus has been to help these students, who have primarily majored in ecology or economics, to use their backgrounds to develop more ecologically sound farming systems.

**Current Research Support:**

**Domestic**

- Wisconsin Department of Natural Resources (Partnerships for Wildlife Program): Integrating Livestock Production and Conservation. Co-PI. \$41,685 (9/01/01-12/31/02). Use of cattle in the restoration of oak savannas.
- USDA-ARS: Crop and Livestock Production Systems for Improved Stewardship and Profitability. co-PI. \$175,610 (7/01/02-2/28/04). Developing environmentally sound grain cropping systems in the Midwest.
- USDA-Integrated Crop, Pasture, Feed, and Manure Management Systems for Dairy Farms. Co-PI \$1,400,000 (6/15/03-9/30/07). Improving nutrient management on dairy farms through alternative crop rotations and linking grain and dairy farms.

## **International**

- Ford Foundation: Procesos y Productos: Socializando la informacion para la accion. PI. \$200,000 (5/01/00-12/31/02). Use of GIS in municipal decision making.
- International Development Research Council (IDRC-Canada): Watersheds and Water rights co-PI. \$150,000 (1/01/03-12/31/04). Linking watershed models with legal and traditional water concession rights in two Bolivian watersheds.
- Global Environmental Facility Block B Grant: Conservation of the Biodiversity of the Paramo in the Northern and Central Andes. Co-PI. \$350,000 (4/15/03-10/31/04). Develop a network of 20 sites in four countries (Venezuela, Colombia, Ecuador, and Peru) that will develop integrated land management plans focusing on livelihoods and conservation. Facilitated by the InterAmerican Bank and United Nations Environmental Program.

## **Select Publications:**

- Posner, J.L., M.D. Casler and J.O. Baldock. 1995. The Wisconsin integrated cropping systems trial: Combining agro-ecology with production agronomy. *American Journal of Alternative Agriculture*. 10:3:98-107.
- Irigavarapu, T. K., J. L. Posner, and G. D. Bubenzer. 1998. The effect of various crops on bromide leaching to shallow groundwater under natural rainfall conditions. *J. Of Soil and Water Conservation*. 53:2:146-151.
- Mallory, E. B., J. L. Posner, and J.O. Baldock. 1998. Performance, economics and adoption of cover crops in Wisconsin cash grain rotations: On farm trials. *American Journal of Alternative Agriculture*. 13:1:2-11.
- Posner, J.L., G. Frank, K. Nordlund, and R. Schuler. 1998. Constant goal, changing tactics: A Wisconsin dairy farm start-up-The first six years. *American Journal of Alternative Agriculture*. 13:2:50-60.
- Estrada, R.D, and J.L. Posner. 2001. The Watershed as an organizing principle for research and development: An evaluation of experience in the Andean ecoregion. *Mountain Research and Development* 21:2:123-127.
- Estrada, R.D. and J.L. Posner. 2002. El Fondo CONDESAN Empresarial: Alianzas estrategicas para atacar la pobreza y la degradacion ambiental en los Andes.. CONDESAN Working paper, CIP, Lima, Peru.

## **Recent Copyright:**

1998. With co-authors Jon Baldock and Derek Fisher, we have been granted a copyright for a software program entitled Crop Rotation Options Program (CROP). This program has been designed to help farmers convert to more profitable and environmentally sound production systems.