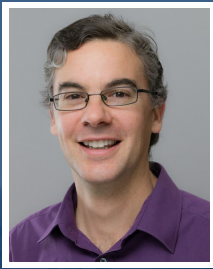


Developing A Novel Agricultural System Using Perennial Grains



Valentin Picasso Riso

Assistant Professor in Forages and Grazing, Department of Agronomy

CURRENT RESEARCH

An innovative ecological system that merges with agriculture science to conserve biodiversity and mitigate environmental climate change

As our global population continues to increase, the demand to produce more food follows. We now face the consequences of climate change due to increased greenhouse gas emissions, and other environmental problems including, soil erosion, and water pollution from nutrient leaching and contamination, due to food production practices that damage the ecosystems. Dr. Valentin Picasso, Assistant Professor in the Agronomy Department of Forages and Grazing at University of Wisconsin Madison is developing novel sustainable cropping system using perennial forages on well-purposed crops. His research has the potential to mitigate the increasing damage on our environment and positively transform food production in both developing and developed countries.

Humans domesticated annual crop species—wheat, rice, corn, and barley—more than 10,000 years ago. The historical dichotomy between environmental conservation and food production is a serious challenge humanity now faces. Agricultural areas around the world face major issues of soil erosion and water contamination, which are problems generated by annual crops. In order to design more sustainable food production cropping systems, Dr. Picasso is focusing on increasing perennial crop use as forages for livestock and grain crops. Perennial grain polycultures are a leverage point for changing the entire food system structure and providing a long-term solution, reconciling environmental conservation with food production. This ecological science-based system merges with agriculture and crop production science to conserve biodiversity, protect soils, and improve water quality and the climate.

Currently, few perennial grain alternatives exist. "Kernza"—a perennial..

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AFFILIATION



University of Wisconsin-Madison

EDUCATION

- Ph.D. in Sustainable Agriculture 2008, Iowa State University

AWARDS

- Researcher, Uruguay National Researchers System, 2009
- Global Research Alliance Borlaug Fellowship, USDA, USA, 2011
- C.T. de Wit Prod. Ecology & Res. Cons. Visiting Sci. Grant, Wageningen Univ., The Netherlands, 2010
- GPSA Outstanding Student Service Award, Iowa State University, USA, 2007
- Teaching Excellence Award, Agronomy Dept., Iowa State University, USA, 2006
- and 3 more...

RESEARCH AREAS

Environment, Agriculture, Ecology, Agriculture

FUNDING REQUEST

Your funding will contribute to the \$1M necessary to continue Dr. Picasso's work in developing sustainable cropping systems and agronomic practices for the long-term. Your contributions will support the cost of personnel, maintaining land for experiments, and lab equipment for farming and foraging. \$3M will expand his research into developing new species and practical cropping systems for farmers on a global level. Help transform our food system and support the ecosystem; fund Dr. Picasso.