Evaluation of Nitrogen Best Management Practices for Potato Production in Northeast Florida. (S08-mylavarapu164307-Poster)

Authors:

- C.M.Hutchinson - *University of Florida*
- R.S.Mylavarapu - *University of Florida*
- F.Munoz - *University of Florida*

Abstract:

The agricultural area composed by St.John, Flagler, and Putnam counties in Florida, has been in potato production for over 100 years. Concerned over the environmental impact of increased and intensive crop production in the area regulatory agencies are in the process of developing BMPs in the St. Johns River watershed. In 2001 a three-year project was initiated to evaluate crop rotation in non-potato seasons, including nitrogen fixing legumes as cover crop (cowpea), cash crop (green bean), a nitrate catch crop (sorghum-sudan grass), and fallow as control to minimize N losses. The experiment is planted in a split plot design with crop rotation as main plot factor and potato fertilization rate as sub-plot factor. With legumes in rotation growers may be able to supply potato crop with required rates of nitrogen while meeting the BMP rate (168 kg/ha) for inorganic nitrogen. Visual differences in the cover crop following the potato crop indicate that the potato crop is not fully utilizing the nitrogen applied in the high nitrogen plots. Preliminary results in yield, soil and nitrate water content (lysimeters and wells) will be presented.

Corresponding Author Information:

Rao Mylavarapu
University of Florida
PO Box 110290
Gainesville, FL 32611-0290

phone: 352-846-3833
fax: 352-392-3902
e-mail: raom@ufl.edu

Presentation Information:

Presentation Date: Tuesday, November 12, 2002
Presentation Time: 2:00-4:00 pm
Poster Board Number: 1335

Keywords:

potatoes, nitrogen efficiency, cover crops, north florida