Soybean Response to Pink Pigmented Facultative Methylotrophic (PPFM) Bacteria and seed Inoculation with Bradyrhizobium japonicum. (C03-joshi172509-Poster)

Authors:

- S.Lungu - *University of Maryland Eastern Shore, Princess Anne, MD*
- J.Joshi* - *University of Maryland Eastern Shore, Princess Anne, MD*
- R.B.Dadson - *University of Maryland Eastern Shore, Princess Anne, MD*
- F.M.Hashem - *University of Maryland Eastern Shore, Princess Anne, MD*

Abstract:

Yield enhancement experiments using Pink Pigmented Facultative Methylotroph,PPFM,bacteria on soybean, Glycine max, were conducted in field trials at the UMES experiment station. Soybean cv. Corsica was grown to ascertain the influence of Bradyrhizobium japonicum and PPFM on yield and yield components. Soybean seeds were inoculated with an elite strain of Bradyrhizobium japonicum, USDA Tal 11 Nod , PPFM and combination of both. Other treatments were foliar spray with PPFM alone at R5, and seed inoculation with bradyrhizobia and later sprayed with PPFM at R5. The highest yield was obtained when soybean seeds were inoculated with B. japonicum strain TAL 11 Nod and plants sprayed with PPFM at R5 resulting in a 16 % yield increase over the control. When seeds were inoculated with B. japonicum and PPFM, there was a yield increase of 7 % over the control. These yield increases, however, were not significant due to favorable soil moisture conditions resulting from adequate rainfall during the growing season. Further investigations are needed to examine the effects of the newly discovered PPFM technology under drought conditions since this technology has increased faba bean yield under similar conditions in Egypt.

Corresponding Author Information:

Jag Joshi
University of Maryland Eastern Shore
30921 Martin Court
Princess Anne, MD 21853

phone: (410)651-6632
fax: (410)651-7656
e-mail: jjoshi@mail.umes.edu

Presentation Information:

Presentation Date: Wednesday, November 13, 2002
Presentation Time: 4:00-6:00 pm
Poster Board Number: 1216

Keywords:

Soybean, PPFM, Bradyrhizobia, Drought