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### **Bensulide Residue in the Field Before Spinach**

The subject of Prefar (bensulide) residue in the soil and waiting period before spinach was brought to the IPM team in the past. Inadvertently some sections of fields with bensulide residue could be scheduled for planting spinach too soon. The rotational crop instructions on the label say: “All other crops should not be planted for 120 days and the soil must be tilled to a minimum of 4 inches prior to replanting”. The Section VI of the PCA Sudy Guide recommends 4 months recropping interval for Alfalfa, wheat and Cotton.

The site Gowan.com explains specifically: “Do not use Prefar 4-E on spinach or Swiss Chard as severe phytotoxicity will occur”<sup>1</sup>.

We also heard different opinions, some minimizing the persistence on this herbicide in fine textured soils. So, we tried it in our clay soil at the Yuma Ag Center with a 40% Clay, 38% Sand, and 22% Silt.

After a bensulide lettuce evaluation was completed, we reworked the beds and planted spinach.

This was done 45 days after treated.

Here’s how the stand was affected:

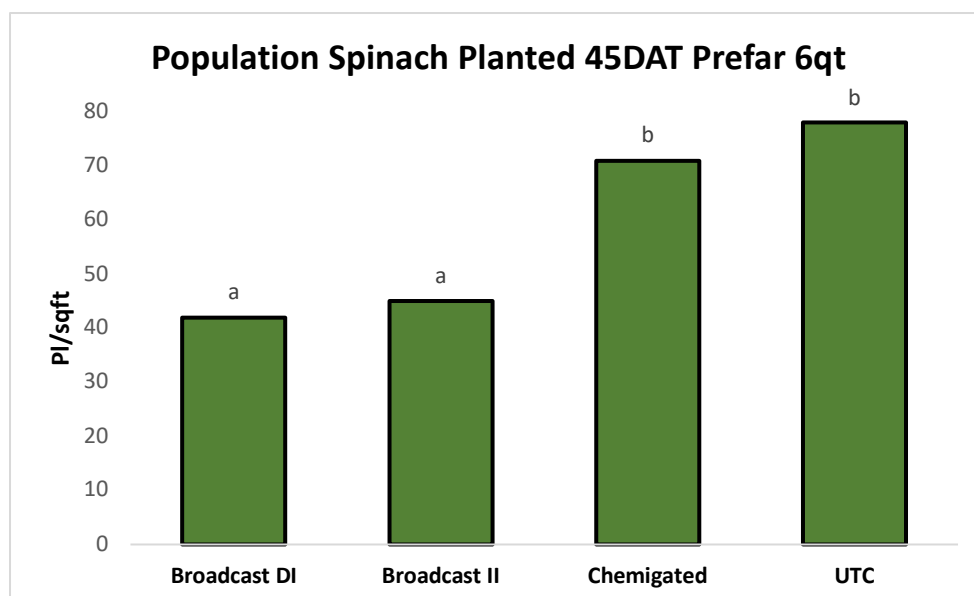


Figure1. Effect of bensulide herbicide residue in spinach stand. Broadcast “DI” means delayed incorporated and “II” Immediately incorporated with sprinkler irrigation.

Additionally, leaves, roots and plant lengths were evaluated showing vigor reduction in treated plots.



Figure 2. Bensulide effects to spinach stand 45 planted 45DAT.

1. <https://www.gowanco.com/products/prefar-4-e>