

**EFFECT OF BIO WEST AG SOLUTION ON THE PERFORMANCE OF RUSSET
POTATO IN THE SAN LUIS VALLEY, COLORADO, 2013**

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EXPERIMENTAL PROCEDURE

The study was conducted at the San Luis Valley Research Center, Colorado State University, under solid set irrigation. The field study was laid out as randomized complete block design (RCBD). Treatments included a control and a Bio West Ag Solution treated plots. Each treatment was replicated four times.

Bio West Ag Solution was applied at planting and during the growing season at a rate of 45 and 20 gal/acre, respectively.

DATA COLLECTION

Root Sample

Plant roots were sampled to evaluate the effect of Bio West Ag Solution on root growth and development as evidenced by root dry weight. Roots from each sampled plot were retrieved from the soil, washed to get rid of any soil particles, and then oven dried.

Total Vine Weight

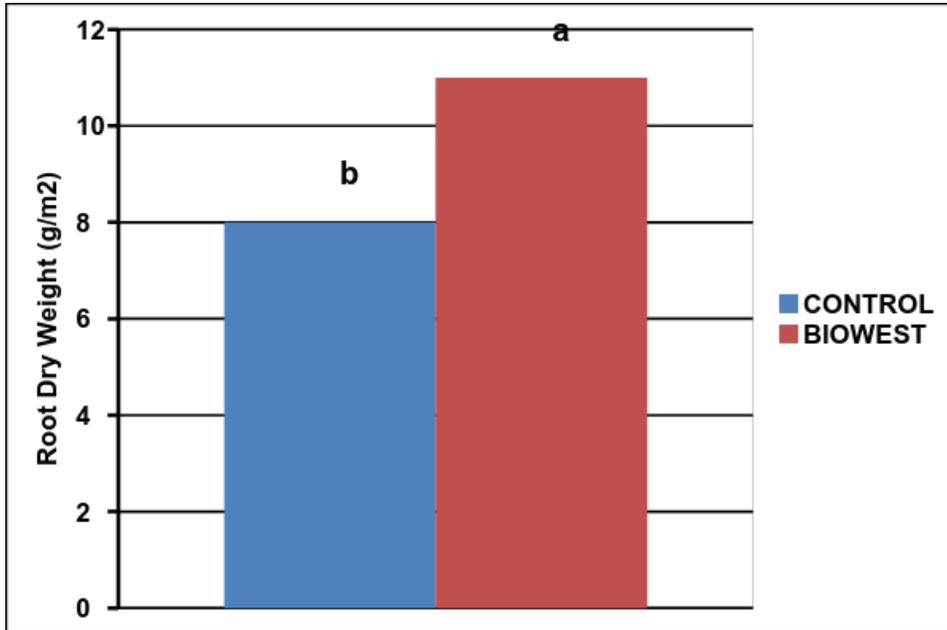
Above ground biomass (vines and leaves) were collected at 104 and 115 DAP to evaluate the effect of Bio West Ag Solution on total vine weight.

RESULTS AND DISCUSSION

Root Dry Weight

Application of Bio West Ag Solution increased the production of roots. Root dry weight did increase by 38% when Bio West Ag Solution was applied

Fig 2. Effect of Bio West Ag Solution application on root dry weight of Rio Grande Russet potato. 2013



Total Vine Weight

Total vine weight decreased from 104 to 115 DAP (fig 3). The decrease in total vine weight was due to vine senescence. Total vine weight did increase with the application of Bio West Ag Solution . At 104 and 115 DAP, Bio West Ag Solution application did increase total vine weight by 22 and 23%, respectively (fig 3).

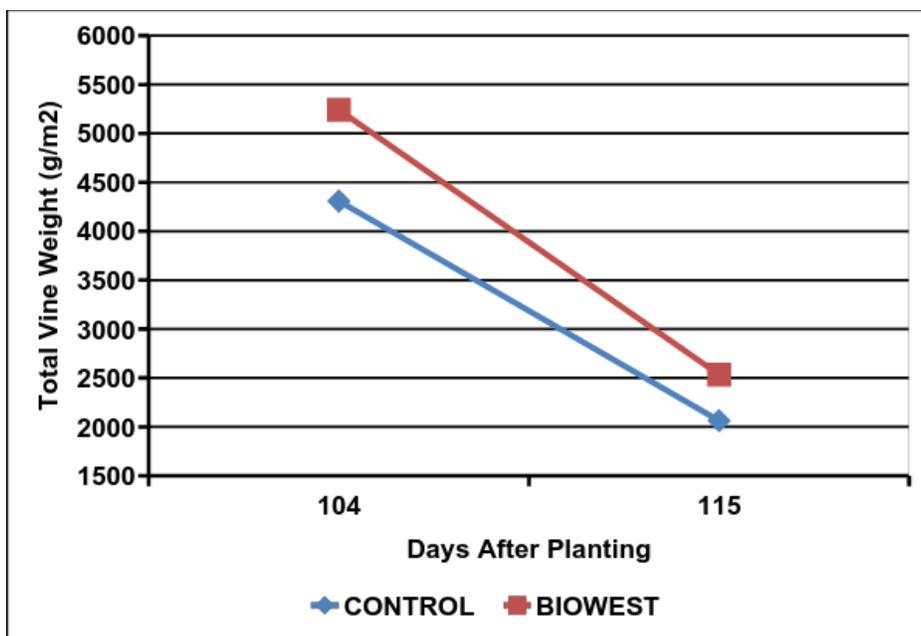


Fig 3. Effect of Bio West Ag Solution application on total vine weight of Rio Grande Russet potato. 2013

Fig 3

SUMMARY

The main purpose of this study was to evaluate the effect of Bio West Ag Solution on plant growth and quality of Rio Grande Russet Potato.

Data from this study showed that Bio West Ag improved root growth as evidenced by higher root dry weight compared to the control treatment.

However, it should be noted that the application of Bio West Ag Solution significantly reduced tuber internal defects such as hollow heart and brown center.