CALIFORNIA STATE SCIENCE FAIR
2002 PROJECT SUMMARY

Name(s)

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Project Number

22450

Project Title

Does Prehydration of Cotton Seed with Organic Compounds Outyield Prehydration with Water? A Four Year Study

Abstract

Objectives/Goals

The purpose of this year#s experiment is to build on the previous three years work on presoaking of cottonseed before planting. This year#s project is to see if presoaking cottonseed in an organic compound has the same results as the presoaking cottonseed in water only.

Methods/Materials

My materials: 5-five gallon buckets, Water, Towels, Cottonseed (Maxxa, grower standard), Flags to max replications, Marking pen to mark flags, Growers field and planter, with driver, Scale and bags for yield data, Trial treatments: Liquid seaweed, Vesta, Fulvic Acid and Ceres.

My method was to presoak cottonseed in the various treatments, and water, for 10 minutes before dryix and then planting. In season readings as to plant emergence, bloom and boll counts were made throughout the season. Cotton yields for the various treatments were acquired through hand harvest after defoliation.

Results

The results from this year#s trial again showed that presoaking cottonseed for 10 minutes before planting gave the greatest yield in cotton lint. This result was greater than any of the organic compounds used instead of simple water.

Conclusions/Discussion

The fourth year of this presoaking cottonseed trial gave some interesting results. Initial seedling counts showed that presoaking the seed with simply water gave the best results. The organic compounds testx showed slower emergence, and in the case of the two soil inoculants tested showed lower plant populations overall. The results in mid May as to initial flowering, as in boll counts showed that tx presoaking with water only, gave the best results. Total lint results again showed that presoaking cottonseed in water out yielded the organic compounds tested. Although all treatments out yielded tx control, where there was no presoaking of the seed. The results must be interpreted that the compounds themselves did nothing to increase yields, but the simple hydration of the cottonseed by the liquid organic compounds acted much the same way as simple water would.

Summary Statement

My project is about presoaking cottonseed before planting with various organic compounds, as well as with water.

Help Received

Cottonseed, planter, treactor driver, water and field # JG Boswell Harvest # family, Superior Soil Supplements - Fulvic Acid, Acadian Seaplants Limited # Liquid Seaweed, Biologically Integrated Organics Inc. - VistaO, and Ceresâ.

Preliminary