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Is AgriBlend The Answer?

The project purpose was to determine barrier system efficiency in farming environments, in terms of water conservation, erosion, crop and root growth, as well as soil salinity residue. Two barrier materials were used - AgriBlend, a "combination of hydrogel, a water-absorbing polyacrylamide, and Zeolite, a water-transporting volcanic material" (Valliant, 2007) and Visqueen, a plastic sheeting used as a moisture barrier that retains heat. Using Arkansas River water and a sandy loam, visqueen and AgriBlend barriers were set. Previous projects showed that underground drip irrigation systems were the most efficient. Soil and engineered drip systems were placed in four tubs, planted with wheat, three with barrier systems in place and one control. The tubs were watered, soil tested and wheat growth measured periodically. The germination and growth of the samples was very similar. Final results indicated that two of my four hypotheses were supported. I had hypothesized that in soil salinity and water runoff, the AgriBlend barrier would have lower soil salinity and less water runoff. These hypothesis were supported. In my hypothesis regarding plant growth, my hypothesis was not supported. My hypothesis of the Visqueen Below Ground system producing the longest root system was incorrect. My conclusion is that in short term use, Visqueen produced better results, but AgriBlend produced results that would have a more beneficial long-term benefit. To provide more substantial results, future projects should be conducted to test whether the same results would occur with proper application ratio of the AgriBlend and proper securing of the visqueen.