Rain vs. Bore – Do the Best Results Come Out of the Blue or the Red?

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Having grown up in rural Australia, we are acutely aware of water's importance in agriculture. In our rural area it's common to go weeks or even months without rain. For this reason we are forced to rely on bore, or well water, to irrigate our five-acre vegetable garden. There is a notable difference between irrigating with rain or bore water: bore water keeps plants alive, but with obvious nutrient deficiencies, while with rainwater plants look healthy and produce nutritious fruit. We hypothesized that plants perform better with rainwater than bore water, leading us to conduct tests to determine the actual impact on plants. We divided the plants into Group A: rain-watered radishes and lettuce and Group B: bore-watered radishes and lettuce. Measurements of different factors – Brix levels, height, weight, fruit size and leaf area – showed that rain-watered plants were significantly healthier than bore-watered plants. Specifically, the Brix levels of rain-watered plants were 41% higher, height was 36% increased, weight was 24% more, fruit size was bigger by over 5%, and leaf area was 27% more. The test results supported our hypothesis: rainwater is superior to bore water for agriculture. Future experimentation could focus on correcting mineral imbalances in bore water through changes in water or soil. This would help farmers in countries with similar climates to Australia raise healthier produce throughout droughts and produce more crops, positively impacting the global food crisis!

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