

Increasing Soil Retention of Water

Recently, desertification has been one of the most serious problems in the world. About 3.6 billion hectares of soil around the world are becoming deserts. Our experiment focused on studying desertification. We decided to research water retention of different soils. Water retention is low when there is much evaporation. It is high when there is less evaporation. Our first experiment's purpose was to find the most suitable soil in which to raise plants. The second, to check the changes of water retention by the mixture of two soils. In our second experiment, we tested the water retention of 14 different soils after being mixed with mineral or organic materials. In a third experiment, we mixed two soils with water in different patterns. The results from our experiments showed that soil containing pumice or organic material had the highest water retention. *Kanuma* soil mixed with peat moss also had high water retention. For future prospects, we want to research how steam flows through desert soil particles. Furthermore, we want to research water absorptive polymers and soil draining in desert soil.