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Grassland Regeneration After Juniper Tree Removal Phase II

This project was designed to estimate total plant cover using transect lines on six sites where *Juniperus monosperma* trees were removed and on two control sites where the *Juniperus monosperma* trees were left standing. Selected six tree sites for tree removal, and two tree sites to use as controls. Removed the six trees; laid out four permanently marked line transects at all eight sites; recorded plant cover, bare ground, plant species and life spans. Data was gathered from all transects both at the beginning of growing season (Spring) and then at the end of the growing season (Fall). Data was then compared and analyzed to help estimate plant cover. Total vegetative cover increased from Spring to Fall on cleared sites (1.32% to 6.70%), and on control sites (3.48% to 5.01%). The vegetative annual cover surpassed the amount of perennial plant cover at the fall testing on the cleared sites, but not on the control sites. Plant populations under standing *Juniperus monosperma* trees tend stronger toward perennial species. Once trees are removed, estimates of vegetative cover show that perennial cover percentages start out foremost, but as the growing season progresses, annual cover percentages increase at a rate to eventually surpass the perennial cover.