



Assessment of Range Planting as a Conservation Practice

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NRCS range-planting Conservation Practice standards are used to develop management recommendations for improving vegetation composition and productivity of grazed plant communities. Individual Conservation Practice recommendations are implemented within a Conservation-Management-System in areas where the existing plant-community attributes are insufficient to meet management goals for productivity and species composition, and where natural recovery toward a more desirable State is not expected to occur. It is assumed that a change in State to a more desirable plant community will be associated with the following Conservation Effects: improved forages for livestock and wildlife; improved water quality and quantity; reduced wind or water erosion; limited weed invasion and dominance; decreased catastrophic fire; and increased carbon sequestration. Successful Conservation-Practice implementation is significantly affected by species selection, seeding rate, seeding depth, seedbed preparation, planting season, post-planting management and weed control practices, all of which are also affected by weather conditions in the years before, during and after specific management actions. Assessment of the range-planting literature must, therefore, be separated into evaluation of the literature documenting: individual Conservation-Practice effects on the trajectory between alternative States; Conservation Effects associated with different States; and climatic impacts on the success of individual Conservation Practices. Weather and climate effects drive specific management recommendations for species selection, seedbed preparation practices and other conservation-management strategies. Future studies should consider modifications to their experimental design that would better accommodate meta-analysis of specific Conservation Practices. Future research should also be conducted to incorporate long-term and very-long-term (3-6 month) weather-forecast probabilities into current Conservation Practice management recommendations.

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