



At the OK Ranch biosolids have been used in this grassland restoration program for over 15 years.

OK RANCH RANGELAND FERTILIZATION

The OK Ranch is located in the Fraser Plateau, within the Interior Douglas-fir biogeoclimatic zone, being very dry but mild. The majority of OK Ranch consists of rangeland dominated by open grasslands at an altitude of 1,150 meters. Through the management of agriculture over the past century, including grazing by cattle and horses, many interior grasslands such as this one have become less productive. Trials to establish best practices for the restoration of grasslands were initiated in the 1990s at the OK Ranch. The first fertilizers tested included chemical fertilizers and chicken manure, both of which did not provide significant vegetation improvement in this very dry and till-free environment.

The most successful restoration approach used to date involves the application of municipal biosolids. The addition of organic matter, usually present in biosolids at concentrations of up to 65% of dry weight, improves overall tilth, water-holding capacity, bulk density, free air space and soil structure. It is the large input of organic matter and slow release of nutrients that make biosolids such a great fertilizer in this environment. Today SYLVIS uses biosolids in progressive restoration efforts and for fertilization. Without these restoration efforts vegetation only covers part of the soil, leaving it exposed to erosion. With restoration, native grasses and other vegetation are able to form a complete cover creating a thatch layer that protects the soil and retains moisture.

SYLVIS is working with several municipalities to provide biosolids to the grassland restoration program. Approximately 300 hectares of land can be fertilized yearly, which represents a small portion of the OK Ranch deeded land. Through vigilant planning with the landowner, parcels that require biosolids are fertilized at a rate of once every five to ten years, allowing the biosolids nutrients to be fully utilized by the vegetation. Several tours and open house have occurred at the OK Ranch in recent years, allowing SYLVIS and the landowner to showcase the benefits of the biosolids management program and positive outcome from various research projects.

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