

More Notes on Sleepygrass

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In the mountains of northeastern New Mexico, sleepygrass (*Stipa robusta*) is very common, especially in the pinyon/juniper and ponderosa pine zones. At Vermejo Park and surrounding areas it grows particularly thick along roadsides, ditches, and rocky alluvial flats which are usually dry. In a recent article in the *Rangeman's Journal* on sleepygrass, Sears (August 1977) suggested that this grass did not invade overgrazed pastures. However, this does not appear to be the case in the Southern Rocky Mountains of northeastern New Mexico. Here sleepygrass is often seen to invade overgrazed parks, meadows, and pastures. E.O. Wooton, who collected plants at Vermejo Park, reported sleepygrass invasions in overgrazed meadows of northeastern New Mexico in the early 1900's (Wooton and Standley 1915).

The thickest invasions may be found along roadsides, fences, and ditches as Sears (1977) indicated. Heavy invasions are also found in abandoned fields or disturbed pastures as shown in Figure 1.



Widespread invasions can also be found along the uplands of valley bottoms in blue grama (*Bouteloua gracilis*) communities. Figure 2 depicts such an invasion in an overgrazed blue grama community above the Vermejo River at an elevation near 7,600 feet.

A third, more unusual type of invasion is illustrated by Figure 3. This is the beginning of an invasion of sleepygrass in an Arizona fescue (*Festuca arizonica*)/mountain muhly (*Muhlenbergia montana*) bunchgrass community in the open forest vegetation type of the ponderosa pine zone similar to that described by Smith (1967). This particular invasion is at an elevation near 9,000 feet, almost 1,000 feet above the majority of sleepygrass populations. This native pasture has been heavily grazed and damaged by cattle, horses, and wildlife, especially in the past.

The author was resident botanist on the Vermejo Park.

About the Park: Vermejo Park, 494,000 acres, is located in northeastern New Mexico, near Raton, and has been operated as a guest and cattle ranch since 1902. It is part of the original Maxwell Land Grant of 1841, a land grant from the Mexican government to the Maxwell family.

The ranch and facilities were purchased in 1973 by Pennzoil Company, a firm whose principal investments are in land and natural resources and which has been involved in significant cattle, agriculture, and timber operations. In addition to guest and cattle operations, trained wildlife management and naturalist personnel are hired who are dedicated to conservation and development of the Park.

Editor's Note: This is a reply to the Paul Sears article on sleepygrass that occurred in August, 1977, issue of *Rangeman's Journal*.



The cover of Arizona fescue as determined by ocular estimation, has been reduced by 75% compared to a nearby fenced pasture which has been grazed lightly by cattle and wildlife. Pocket gophers present in this pasture have also disturbed the site by burying plants and exposing bare soil.



A complexity of factors undoubtedly produces the conditions which allow invasions of sleepygrass into native pastures and range. Severe overgrazing in the past may have killed vegetation, which makes space available for the invasion of pioneer species and less palatable plants. Although heavy use may compact the soil, hoof action also loosens the soil, which may aid germination and establishment of sleepygrass. In the particular invasions of the Arizona fescue community described above, the soil loosened by pocket gophers may also have been a factor contributing to the establishment of sleepygrass. Once grazing pressure is reduced, sleepygrass is unable to compete with climax species (Gay and Dwyer 1970).

Undoubtedly these invasions of sleepygrass in northeastern New Mexico affect the useful productivity of range and pasture lands. With the present implementation of improved range and wildlife management practices, a reduction in cover of this species should be seen in the invaded communities at Vermejo Park.

Literature Cited

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