TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE Boise, Idaho SOIL CONSERVATION SERVICE

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The following information was prepared by the state of Colorado.

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From: Technical Bulletin 1357 "Effects of Stocking Rates on Range Vegetation and Beef Cattle Production in the Northern Great Plains" - USDA ARS - January 1966.

Heavy Stocking Lowers Livestock Production on Range

Studies made between 1950 and 1957 on Northern Plains sites on experimental range near Miles City, Montana showed that heavy stocking on summer pastures resulted in lower production of livestock and losses to vegetation and soil. The table below summarizes responses of cattle, in terms of calves produced, under heavy and light stocking rates. Figures are averages for the eight years of he study.

	Average Stocking Rate 1950 - 1957	
	Heaviest Rate 2.44 acres/AUM	Lightest Rate 4.31 acres/AUM
Birth Weights of Calves	68 lbs.	77 lbs.
Daily Gains of Calves	1.56 lbs.	1.91 lbs.
Weaning Weights of Calves	348 lbs.	420 lbs.
Feeder Grades of Calf at Weaning	Good	Low Choice
Calf Crop At Weaning	63%	91%
Calf Production - per breeding cow per year	216.4 lbs.	384.1 lbs.

Herbage Production was greater in 1958 on the lighter stocked pastures on the Overflow, Silty and Clayey range sites than it was on heavily stocked pastures.

Erosion: A large gully which did not exist in the 1930's had by 1960 grown to [illegible] to 16 ft. deep, 60 ft. wide and 400 ft. long on an Overflow site in a heavy-grazed summer pasture.