
()

*

(// //)

Archive of SID

()

(.)

()

()

()

()

(.)

()

()

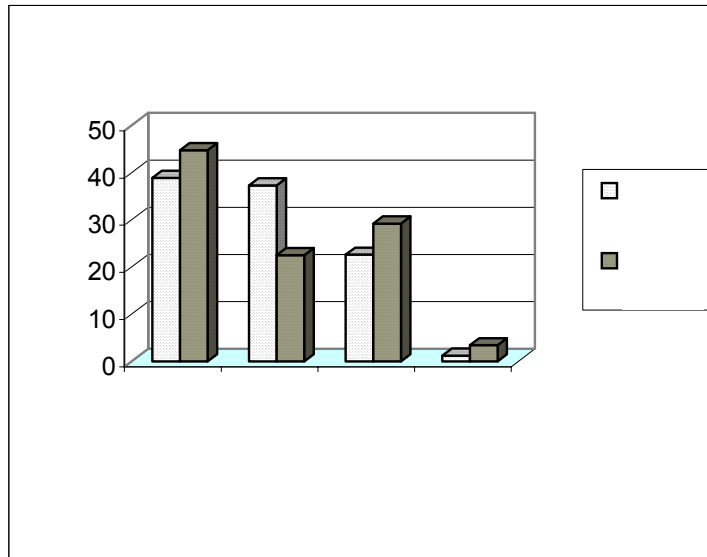
Archive of SID

()

Angelo –Alzerreca

		(Kg/Ha)							
	<i>Astragalus sp bagensis</i>		/	/				/	/
	<i>Acathophylum sp</i>			/					/
	<i>Thymus kotschianus</i>		/	/				/	/
	<i>Acatholimon sp</i>			/					/
			/	/				/	/
	<i>Agropyrum desertorum</i>		/		/			/	
	<i>Agropyrum sp</i>			/		/		/	/
	<i>Festuca ovina</i>		/	/				/	/
	<i>Pennisetum orientale</i>		/	/				/	/
	<i>Bromus tomentellus</i>		/	/				/	/
	<i>Poa bulbosa</i>		/	/				/	/
	<i>Stipa hohenackeriana</i>		/	/				/	/
			/		/	/		/	/
	<i>Aethionema sp</i>		/	/				/	/
	<i>Crucianella gilanica</i>		/	/				/	/
	<i>Stachys inflata</i>		/	/				/	/
	<i>Hypericum scabrum</i>		/	/				/	/
	<i>Achillea vilhelmsii</i>		/					/	
	<i>Phlomis olivieri</i>		/	/				/	/
	<i>Hedysarum sp</i>		/					/	
	<i>Scariola orientalis</i>		/	/				/	/
	<i>Tanacetum pinnatum</i>		/					/	
	<i>Teucrium polium</i>		/	/	/			/	/
	<i>centaurea virgata</i>			/					/
	<i>Erysimum sp</i>			/					/
	<i>Astragalus sp</i>		/	/	/	/		/	/
	<i>Euphorbia sp</i>	-		/					/
			/	/		/		/	/
	<i>Bromus tectorum</i>		/	/				/	/
			/	/	/				

()



Archive

() () () () (Decreasers)
() () () () (Invasers)
() () () () (Invaders)
() () () () ()

()

()

- 8- Alzerreca, Angelo, H. E. W. Schupp and S. G. Kitchen, 1998. Sheep Grazing and Plant Cover dynamics of shadscale Community. *J. Range Manage.* 51(2): 214-221.
- 9- Bowns, J. E. and C. F. Bagley. 1986. Vegetation responses to long-term sheep grazing on mountain ranges. *J. Range Manage.* 39:431-434.
- 10- Heitschmidt, R., K., S. L. Dowhower, and J. W. Walker. 1987. Some effects of a rotational grazing treatments on quantity and quality of available forage and amount litter. *J. Range Manage.* 40: 318-321.
- 11- Hoffman, G. R. and L. D. Stanley. 1978. Effect of cattle grazing on shore vegetation of fluctuation water level reservoirs. *J. Range manage.* 31:412-416.
- 12- O, Conner T. G. and P. W. Roux. 1995. Vegetation Changes (1949-1971) in a semi-arid, grassy dwarf shrublands in the karoo, South Africa: Influence of rain fall variability and grazing by sheep. *Journal of Applied Ecology.* 32:612-626.
- 13- Piper, R. D. 1969. Comparison of vegetation on grazed pinyon-juniper grassland sites in southcentral New Mexico. *J. Range Manage.* 21:51-53.
- 14- Pitts, J. S. and F. C. Bryant. 1987. Steer and vegetation response to short duration and continuous grazing. *J. Range Manage.* 40:386-389.
- 15- Tuckel, T. 1984. Comparison of grazed and protected mountain steppe rangeland in Ulukisla, Turkey. *J. Range Manage.* 37:133-135.
- 16- Yorks, T. P., N. E. West and K. M. Capels, 1992. Vegetation differences in desert Shrublands of West Utah, Spine valley between 1933 and 1989. *J. Range Manage.* 45(6):577-589.

An investigation on the Effects of Exclosure on Quantitative and Qualitative changes of Rangeland Vegetation Cover

Farhad Aghajanloo^{*1} and Ahmad Mousavi²

¹ Staff Member, Natural Resources and Livestock Affairs Research Center, Zanjan, I.R. Iran

² Staff Member, Natural Resources and Livestock Affairs Research Center, Zanjan, I.R. Iran

(Received 24 January 2004, Accepted 28 May 2005)

Abstract

We investigated the effect of 19 years of grazing exclosure on production, vegetation cover and species composition in a region located in the southern part of Zanjan Township. The Headquarters of Natural Resources Office of Zanjan has exclosed the mentioned area since 1985. Four transects within the exclosure and another 4 transects, each with 30 m length in the vicinity of the exclosure had been established. The sampling method was a Randomized Systematic one comprised of 16 plots, each of 1 m² in area. Annual growths of vegetation cover were clipped and weighed for the production to be calculated. In comparison to non-exclosure area the decreasing palatable plant composition increased (280%) while increasing and invading plants decreased. The production within the exclosed area was twice that in non-exclosure area.

Keywords: Rangelands, Exclosure, Vegetation cover, Species composition, Zanjan

* Corresponding author: Tel: 0242-5853352 , Fax: 0242-5853351 E-mail: Faghajanloo@yahoo.com