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The effects of grazing on the vegetation of typical steppe in Mongolia Plateau

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Key words : grazing system ; ecological indicators ; typical steppe

Introduction Rotational grazing systems are widely used in Inner Mongolian grasslands . The vegetation characteristics were compared between continuous and rotational grazing systems (Savory 1980) . In this study , we selected the typical steppe in Inner Mongolia and Mongolia to compare the vegetation difference in different grazing systems in order to assess the effect of vegetation on grazing systems .

Materials and methods The vegetation characteristics of typical steppes in Dongwu Banner in Inner Mongolia , China ($45^{\circ}27' N$, $117^{\circ}04' E$) and Su He Bate Province in Mongolia ($45^{\circ}44' N$, $115^{\circ}43' E$) were measured at the same time to compare the difference under different grazing systems . We mainly used herder's house as the starting point and located three transects , every transect angle is 120° . Three to five quadrats ($1 \times 1 \text{ m}^2$) data were collected and analyzed using SPSS13.0 .

Results *Stipa krylovii* is the dominant species and the results showed in Table1 . The result showed that the height and coverage of vegetation in Mongolia *Stipa krylovii* typical steppe (nomadic grazing) were higher than Inner Mongolia (consecutive grazing) .

Table 1 Vegetation characteristics of *Stipa krylovii* typical steppe in two sites .

Grazing system	Vegetation	Height(cm)	Coverage(%)
Mongolia(nomadic grazing)		9.0 ± 3.2^a	9.8 ± 6.7^a
Inner Mongolia(consecutive grazing)		5.8 ± 1.5^b	3.8 ± 1.5^b

Note : different letters indicate significant differences at $P < 0.05$ level .

Conclusions Nomadic grazing in Mongolia is better than consecutive grazing in Inner Mongolia .

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