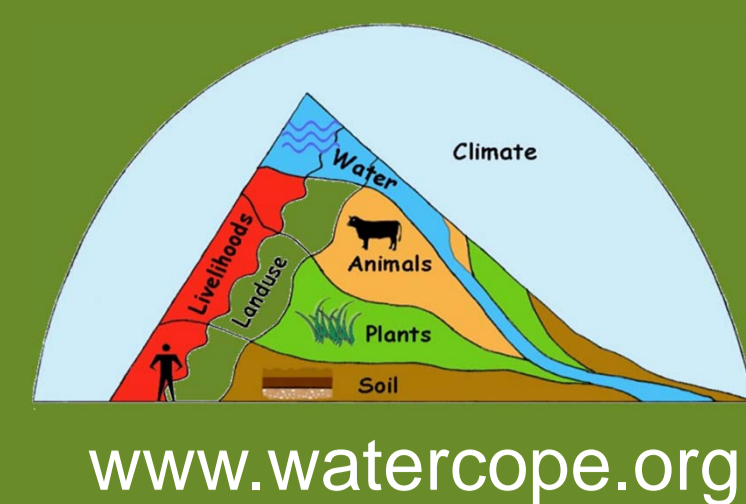


# Impact of grazing intensity on herbage mass, live weight gain and grazing behavior on meadow steppe of Altai mountain, China

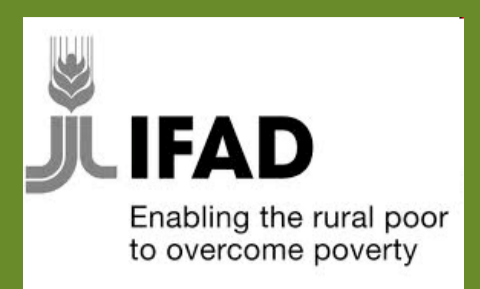
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## Introduction and Objectives

The amount of livestock in Altay Mountains was rapidly increasing in recent years and the over-grazing of the pasture became more and more serious with the increase of population and the development of economy.

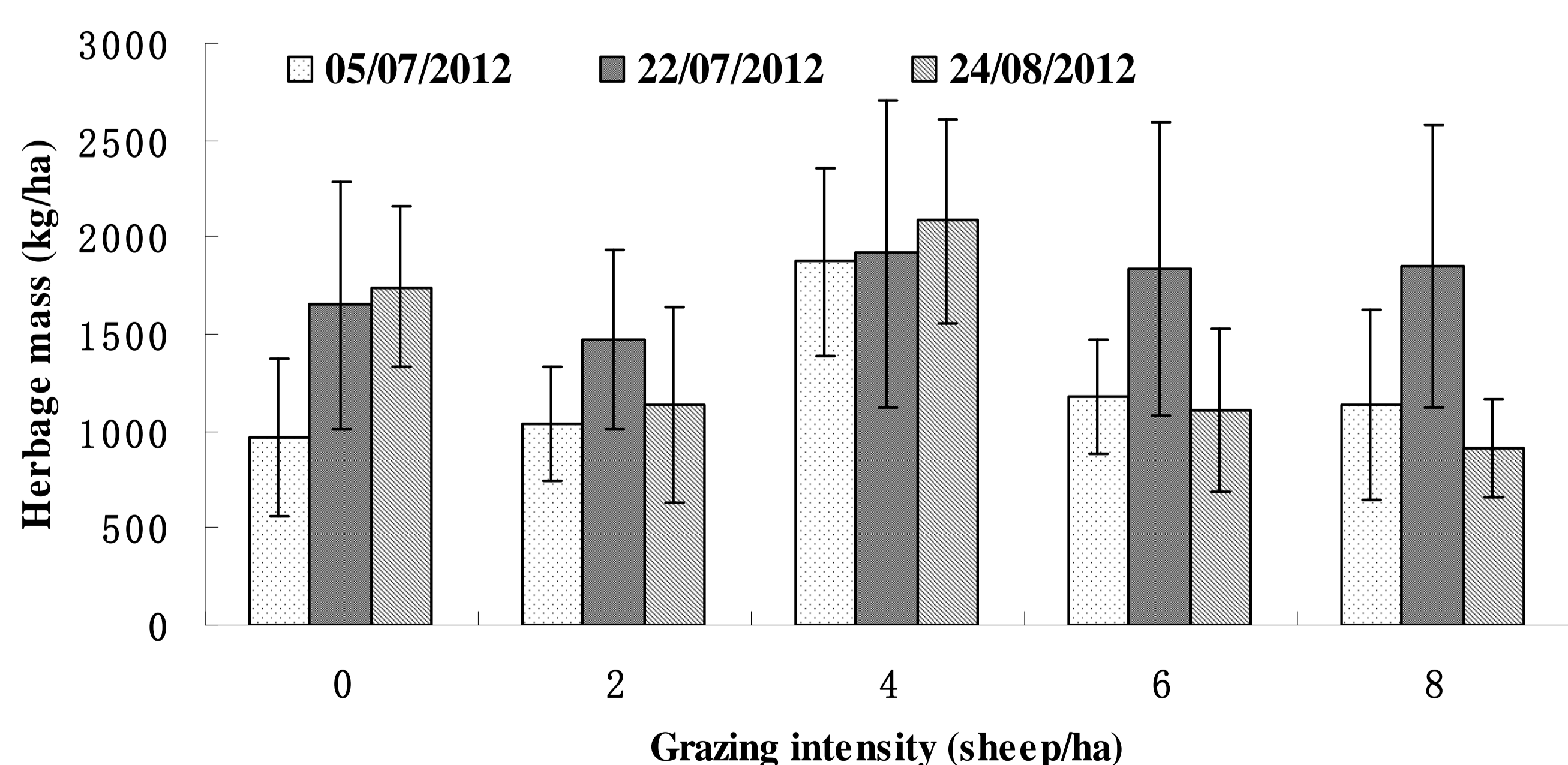
- Grazing experiment focuses on the pasture and livestock production.
- Aim is the optimal and sustainable stocking rate.



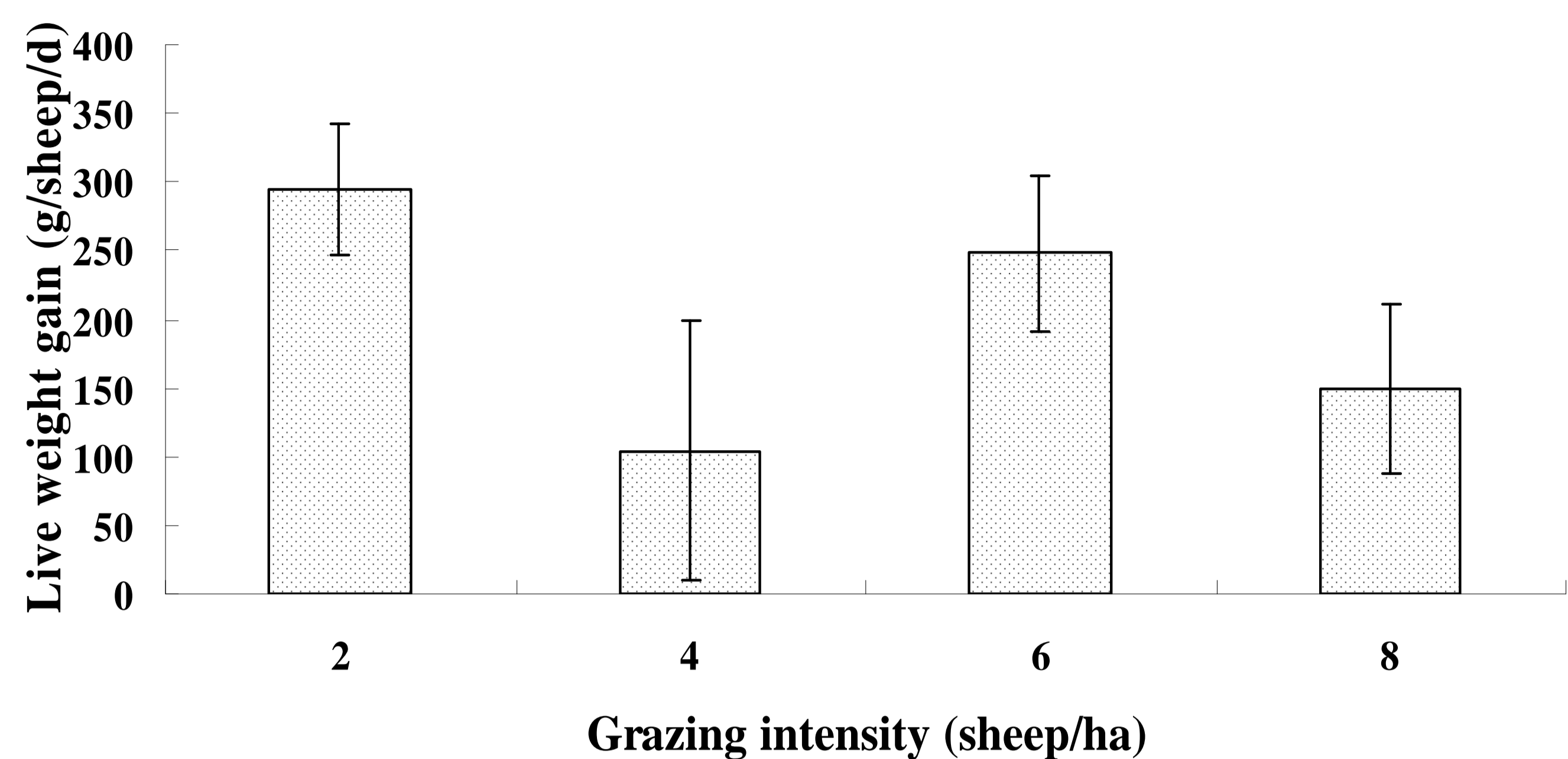
**Figure 1.** Sheep grazing scene and the grazing experiment on grass steppe in the Altai Mountains.

## Results

- Herbage mass increased when no grazing occurred. Herbage mass decreased more in the higher grazing intensities.
- Live weight gain was higher in lower grazing intensity than in higher.



**Figure 2.** Changes of herbage mass under different grazing intensities.

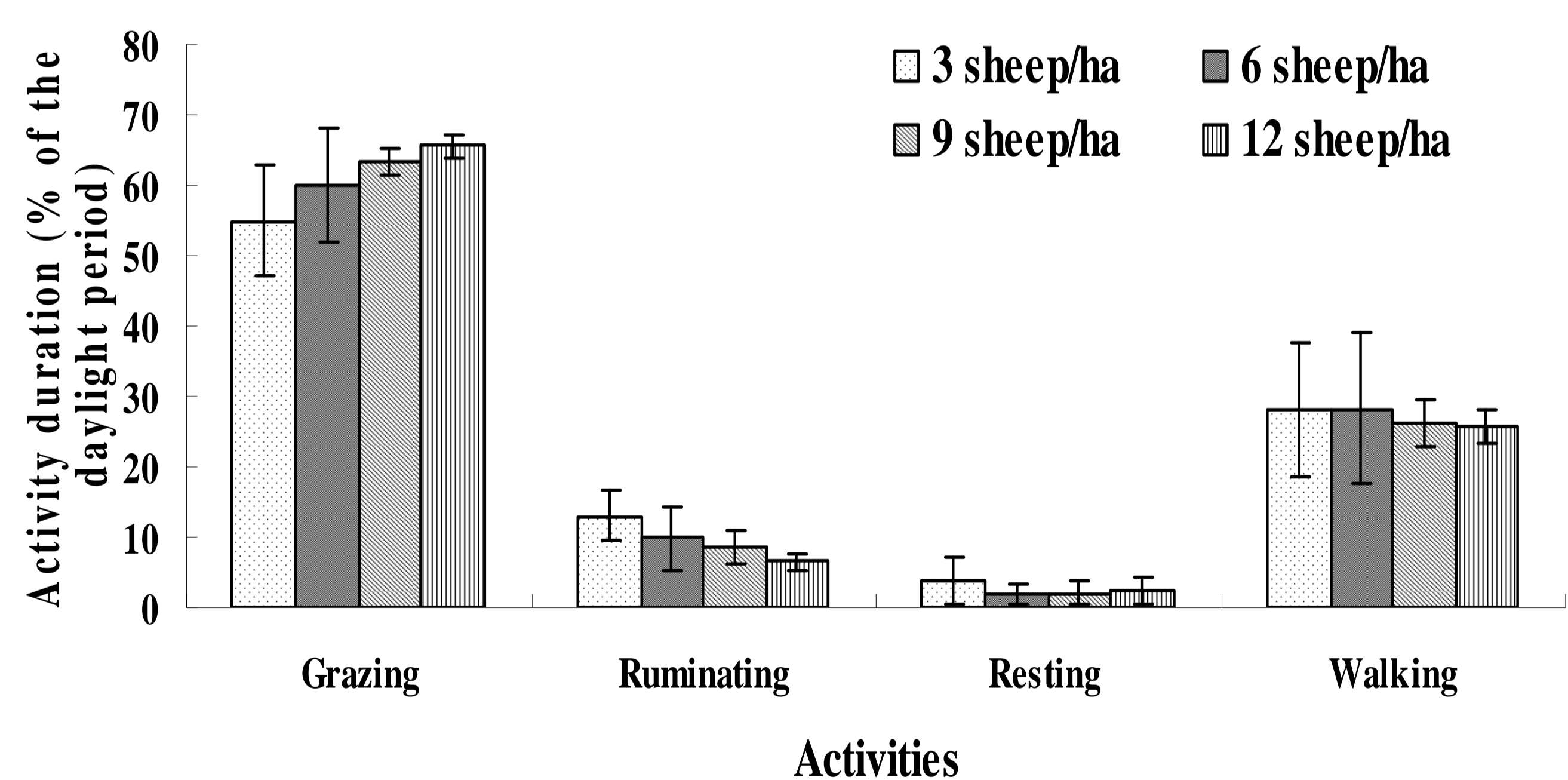


**Figure 3.** Changes of live weight gain under different grazing intensities.

- Grazing time was increased with the grazing intensity and ruminating time was decreased with the grazing intensity.

## Materials and Methods

Local fat-tailed sheep of relatively same age and weight were chosen. The amount of grazing sheep was constant and the grazing area was different. Through setting different grazing intensities the effect of grazing on herbage and livestock production were studied. The herbage mass, live weight gain and grazing behavior were surveyed.



**Figure 4.** Changes of sheep grazing behavior under different grazing intensities.

## Conclusions

Higher decreased Herbage mass at the high grazing intensities led to lower live weight gain per sheep. Higher energy requirements for increased grazing activities at high grazing intensities may also lead to decreasing live weight gain. Long-term and systematical studies is expected.

