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Introduction Natural grassland is an important resource of China which provides grazing for a large proportion of the livestock population. The natural grasslands in China are temperate in nature, and occupy 2.4 million km² or one-quarter of the area of China. An understanding of the structure and function of the various types of grassland that have developed in the diversified climates of this country is basic to rangeland management under the pressures imposed by an expanding livestock industry.

Grassland types The natural temperate grassland of China can be divided into two major types, steppe and meadow. Based on the concept of zonal vegetation, steppe vegetation is zonal, but meadows are not zonal (Zhu, 1992). Five types of steppe occur in China (Figure 1): (1) Meadow steppe occurs in the eastern part of the grassland belt, extending westward to the eastern edge of the inner Mongolian plateau. The principal dominants are *Stipa baicalensis* and *Leymus chinensis*. (2) Typical steppe occupies the northeastern and central parts of the inner Mongolian plateau. Here the dominants are *Stipa grandis*, *Stipa krylovii*, and *Stipa breviflora*. (3) Desert steppe occupies the western part of inner Mongolia and extends southward into parts of the near provinces. The principal dominants are *Stipa glareosa*, *Stipa klemenzii* and *Stipa gobica*. (4) Shrub steppe is transitional between grassland and forest. The dominants are *Stipa bungeana*, *Themeda triandra*, and *Bothriochloa ischaemum*. (5) Alpine steppe covers extensive areas of the Tibetan plateau of south western of China. The most important dominants are *Stipa purpurea* and several cushion plants. According to meadows habitats, the meadows are classed in three types: (1) Typical meadow occurs as a type under somewhat moister conditions than meadow steppe, and is located in the forest zone proper as well as in and near the zone of transition to forest. The dominant plants are mesophytic forbs. (2) Marsh meadow occupies imperfectly drained low-lying habitats throughout the grassland region and also in the forest region. The vegetation is composed of hygrophilous herbs, mostly of the *Cyperaceae* and particularly species of *Carex* and *Kobresia*. (3) Salt meadow characterizes saline and alkaline low-lying areas in various parts of the grassland and desert zones. The widespread dominant vegetation is *Achnatherum splendens*.

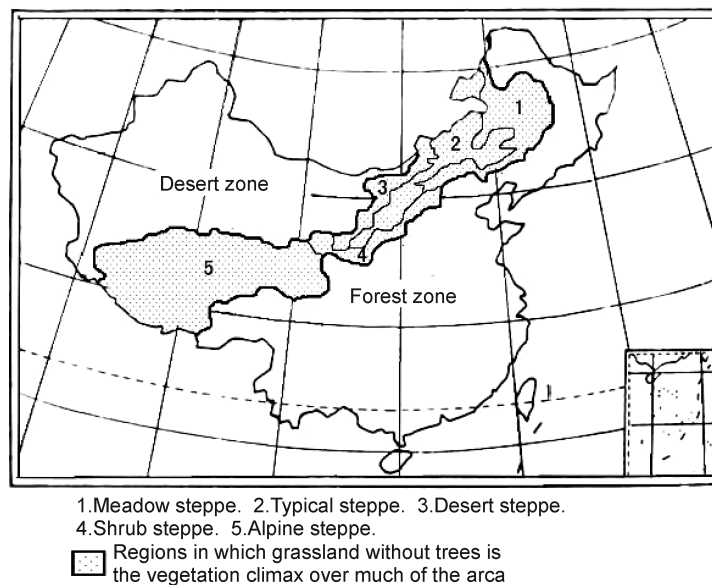


Figure 1 Steppe zone of China.

Use and management The natural grasslands in northern China have deteriorated during the latter half part of twentieth century, during which nomadic grazing systems have been replaced by sedentary agriculture. Sparse grass cover and low forage yield suggest that the vegetation is being overgrazed. After implementing the project of restoring grassland from over-grazing in China 2004, 40 percent of the western severe degraded grassland was improved and meadow steppe and typical steppe grassland vegetation growth ameliorated obviously. Therefore, rational use of nature grassland resource was implemented in China.