



University of Kentucky  
UKnowledge

---

International Grassland Congress Proceedings

XXI International Grassland Congress / VIII  
International Rangeland Congress

---

## Diversity of Grassland Resources and Modernization of Pastoral Areas – The Comparative Study of Grass Industry among USA, Mongolia and China

Jin Yi  
*Inner Mongolia Agricultural University, China*

Puchang Wang  
*Inner Mongolia Agricultural University, China*

Follow this and additional works at: <https://uknowledge.uky.edu/igc>



Part of the [Plant Sciences Commons](#), and the [Soil Science Commons](#)

This document is available at <https://uknowledge.uky.edu/igc/21/20-1/19>

The XXI International Grassland Congress / VIII International Rangeland Congress took place in Hohhot, China from June 29 through July 5, 2008.

Proceedings edited by Organizing Committee of 2008 IGC/IRC Conference

Published by Guangdong People's Publishing House

---

This Event is brought to you for free and open access by the Plant and Soil Sciences at UKnowledge. It has been accepted for inclusion in International Grassland Congress Proceedings by an authorized administrator of UKnowledge. For more information, please contact [UKnowledge@lsv.uky.edu](mailto:UKnowledge@lsv.uky.edu).

## Diversity of grassland resources and modernization of Pastoral Areas —The comparative study of grass industry among USA , Mongolia and China

YI Jin ;WANG Pu-chang

Institute of Forage Physiology and Ecology , Inner Mongolia Agric .Univ . , Huhhot , Inner Mongolia 010019 P .R . .China  
E-mail : yijin@163 .com

**Key words :** Functional diversity ; grassland resources ; ecological balance

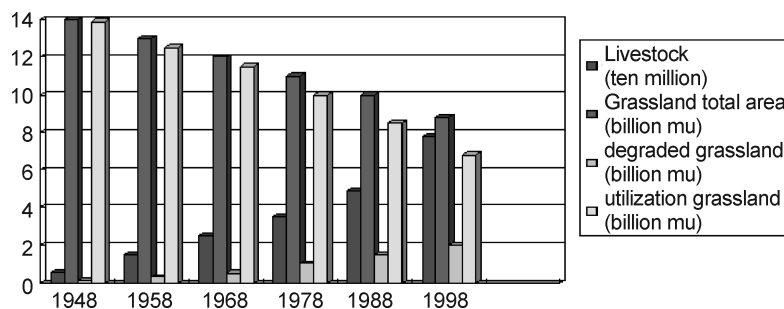
**Diversity and particularity of grassland resources** Diversity and particularity of grassland resources can be divided into tangible resources and intangible resources . Tangible resources included human resource , mine resource , energy resource , land resource , water resource , biotic resource and tour resource . Intangible resources included ethnic cultural resources , medical resource , religion , military and economic resource etc . But conservation and utilization of the former was greater than that of the latter .

**Functional diversity of grassland** In view of diversity of grassland resources , functions of grasslands also vary . It can mainly be divided into ecological function and production function . The main function includes : 1) maintaining biodiversity ; 2) water resources protection ; 3) the protection of wildlife ; 4) function of tourism resources ; 5) function of ecological regulation ; 6) function of stockbreeding forage base ; 7) function of culture ; 8) function of space cause development base ; 9) function of mineral resources development .

### Modernization of grassland—the comparative study of grass industry among USA , Mongolia and China

**Development of meadow industry in China** Grassland resource is abundant and particularity , but the integrity is low . Over the past 50 years , as Chinese government lack of awareness of ecological protection , and mainly developed grassland animal husbandry , it make function of grassland become single . Take Inner Mongolia Grassland for example . Inner Mongolia pastoral areas over the past few decades simply focus on the development of animal husbandry , neglect pasture protection , and lead to reduced degradation of the grassland area (Figure 1) ; And now some areas focused only on modernization of mineral resources development for modernization , neglect ecological balance and other functions of the protection of grassland .

At present the development of grassland are also greatly influenced by the farming culture . From the fig .1 we can see that the relationship between development of Inner Mongolia grassland animal husbandry and the use of grassland . Over-exploiting grassland resource had reached the climax at 90's in 20 centuries . The desertified grassland was serious and sandstorms occurred frequently .



**Figure 1** Development of livestock amount and trend of degenerated grassland during 50 years

**Development of meadow industry in USA** In view of the United States in the 20th century 20-40 excessive land reclamation , biodiversity of grassland was serious loss . And now , biological resources are relatively scarce , but the United States has been aware of these problems , the current high awareness from around the world of the collecting biological resources . Especially the collection of plant resources is the focus of the work .

### Development of meadow industry in Mongolia

Mongolia grassland types and grassland resources has good diversity and richness , uniqueness and integrity . They basically maintained the traditional nomadic livestock , but the productivity is low . They believe that the use of grassland is a reasonable standard at 50% , awareness of environmental protection is high . Mongolia is a natural biological gene bank . And the many scientists from the world attention the harmony of the traditional Mongolian nomadic culture and the natural environment is energy-saving society model .

From the comparative study of grass industry among USA ,Mongolia and China , we can see that model of development and effectiveness were differences in different countries . The criterion of the grassland resources modernization is Grassland protection . If only protect the diversity of grassland resources , the development of all the functions were maintained .