ABSTRACT: The Loess Plateau is situated at 33°43' − 41°16'N, 100°54' − 114°33'E. It is covered with 50—150m deep loess. As it is eroded by flowing water for a long time, it formed alone hill-gully topography. Humidity and heat decrease by degrees from southeast to northwest, the forest is replaced by the steppe, and an obvious transitional zone formed between them. It is forest steppe. Its characteristic is that stunted xero-mesophilous trees distribute sparsely on the meadow steppe. The meadow steppe mainly consist of xero-mesophytes and meso-xerophytes. The trees cover degree isn’t over than 20%. Usually about 10%. Sometimes below than 5%. A precipitation of about 420-520mm is a decisive factor of existence of the forest steppe in the Loess Plateau.

KEY WORDS: forest steppe, Loess Plateau, open forest steppe, meadow steppe

The types, characteristics and distributive law of the natural plant community are the natural law that reasonable layout of agriculture, forestry and animal husbandry should follow, and are the natural model in the region. It has real significance to the comprehensive transformation of the Loess Plateau and the restoration of ecological balance.

I. GEOGRAPHIC POSITION AND CHARACTERISTIC OF THE LOESS PLATEAU

The Loess Plateau is situated at 33°43' − 41°16'N, 100°54' − 114°33'E., it includes seven provinces (autonomous regions), they are Henan, Shanxi, Shaanxi, Inner Mongolia, Gansu, Ningxia, and Qinghai. The area is altogether 626,800 square kilometers, occupying 6.5% of the territory of China (Fig. 1). It is covered with 50—150m deep loess. The geographic feature is that the northwest is high and the southeast is low. As loess quality is loose friable, rich in...
calcium carbonate, soluble in water, it is eroded by flowing water for a long time, formed alone hill-gully topography. The average annual air temperature is 2.2°C to 15°C, the average annual precipitation is 150mm to 700mm. The air temperature and precipitation decrease by degrees from southeast to northwest.

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**Fig. 1** The range of forest-steppe zone in the Loess Plateau

**II. THE RANGE AND FEATURES OF FOREST STEPPE ZONE**

As humidity and heat decrease by degrees from southeast to northwest, the forest is replaced by the steppe, and an obvious transitional zone is formed between them. It is forest steppe (Fig. 1). Under the long-term influence of human activities, it's difficult to pry the outline of the natural vegetation. According to data such as surviving plants and communities, local name of plants, records of ancient literatures etc., we have fixed the range of forest steppe zone (Fig. 1), and have studied the characteristics of forest steppe on the Loess Plateau.  

When we fix the range of forest steppe we should consider as follows: 1. Under hill-gully condition, humidity, heat and air moving anew distribution, the bottoms of gully, hill-ridges appear extreme habitat and corresponding types of planned community. so quality of vegetation zone should proceed on a large area of the slope. 2. The deciduous Quercus forest is the mark of deciduous broadleaf forest. the south demarcation of forest steppe is determined according to north edge of the deciduous Quercus forest. 3. The vegetation features of the forest steppe zone is that stunted xero-mesophilous trees distribute sparsely on the meadow-steppe. it is called open forest steppe. The meadow steppe mainly

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Vegetation Research Team of Shanxi. 1987: Vegetation Division of Shanxi.