



University of Kentucky  
UKnowledge

---

International Grassland Congress Proceedings

21st International Grassland Congress / 8th  
International Rangeland Congress

---

## Breeding and Utilization of *Poa pratensis* L. cv. Daqingshan

Suying Wen

*Agriculture and Animal Husbandry Academy of Inner Mongolia, 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/21/11-1/14>

The 21st International Grassland Congress / 8th 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).

## Breeding and utilization of *Poa pratensis* L . cv . Daqingshan

WEN Su-ying

Grassland Institute , Agriculture and Animal Husbandry Academy of Inner Mongolia ,  
Eerduosi Western Street , Yuquan District , Huhehot city , China , 010030 , E-mail : wsynmg@126 . com

**Key words** : *Poa pratensis* L . cv . Daqingshan , new variety , cold-season turfgrass , breeding , comprehensive evaluation , utilization

**Introduction** *Poa pratensis* , one of the most important cool-season turfgrass specieses in the temperate zone , is distributed over China . There is a dry , cold , very windy and sandy climate in Inner Mongolia in the north of China . It is lacking a turfgrass that is adapted to the climate . Thus it is important to breed new varieties by using local native germplasm (Emuhe et al . 2000) .

**Materials and methods** Experimental materials , Daqingshan is from a native source of *Poa pratensis* in Daqing Mountain in Inner Mongolia . Control materials , included three superior varieties Wabash , Kaidabul-uk , and Fylking from America , which were introduced and domesticated with 47 turfgrass varieties from Europe and America that are adapted to the climate in Inner Mongolia . We selected nativeturfgrassby using Individual Selection Method (Emuhe et al . 2000) .

**Table 1** Some varietal characters comparison .

name	1	2	3	4	5	6	
Wabash	70-90	0.35-0.60	80-103	13.80-7	80	150-180	
Kaidabuluk	75-96	0.40-0.65	80-94	7.90-3	90	75-150	
<i>Poa pratensis</i> L	i	60-85	0.30-0.60	80-96	22.73-5	73	120-150
	ii	6-15	0.15-0.30	30-75	38.25-37	25	—

**Results and analyses** Compared with the original group , Daqingshan showed good bright colour , leaf weight and seed yield (Table1) . Data from variety e testing , showed that it has stronger resistances (drought , cold , disease , weed) , wear tolerance , good low fertility tolerance and good ornamental value . Its varietal characters compared well to others 1 through a 20 item turf [1-leaf length (cm) 2-leaf width (cm) 3-plant height (cm) 4-stem : leaf : ear 5-leaf weight (%) 6-seed yield (kg/hm<sup>2</sup>) i-domesticated ii-wild group] 4 Turfgrass 20 item performance comprehensive evaluation (Table 2) .

**Table 2** 4 Turfgrass 20 item turf performance comprehensive evaluation .

name	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Wabash	3.5	3.5	4.0	3.0	4.0	4.5	4.0	4.0	3.0	4.0	3.5	3.0	4.0	3.0	4.0	4.0	4.0	3.5	4.0	4.0	74.5
Kaidabuluk	3.5	3.5	3.5	3.0	4.0	4.0	4.0	4.0	3.0	4.0	3.5	3.5	4.0	3.0	4.0	4.0	4.0	3.5	4.0	3.5	73.5
Fylking	3.5	3.5	3.5	3.0	4.0	3.0	3.0	4.0	3.0	4.0	3.5	3.0	3.0	3.0	4.0	4.0	4.0	3.5	3.0	3.0	68.5
Daqingshan	3.5	3.5	4.0	3.0	3.5	4.5	4.5	4.0	3.0	3.5	3.5	4.0	4.5	3.0	3.5	4.0	3.5	3.5	4.0	3.5	74.0

(1-rate of emergence 2-growth height 3-reproduction velocity 4-establishment velocity 5-regeneration velocity 6-density 7-coverage 8-colour and brightness 9-texture 10-green period 11-homogeneity 12-drought resistance 13-cold resistance 14-wear tolerance 15-mowing tolerance 16-shade tolerance 17-disease resistance 18-pest resistance 19-weed resistance 20-phytomass 21-total)

**Conclusions** Daqingshan showed more resistance and leaf weight . According to the examination and approval of the committee of plant species , Daqingshan is registered as cultivated wild variety (NO . 155) . It is the only cool-season turfgrass variety bred successfully from domestic wild germplasm . It is well adapted to the north of China , which has been generalized more than ten million square meters .

### Reference

Emuhe , Hasiqiqige , Wen Su-ying , 2000 . New Variety of Cold-season Turfgrass : *Poa pratensis* L . cv . Daqingshan . *Inner Mongolia Animal Husbandry Science* , Journal 1 , 43-45 .