A Big Earth Data Platform for Three Poles

**Dataset of reproductive strategies of desert plant population in Hexi region of Gansu province (2004-2006)**

1、Description

The research project on the breeding strategies of desert plants in hexi region of gansu province belongs to the national natural science foundation "environment and ecological science in western China" major research plan, led by professor an lizhe of lanzhou university. The project runs from January 2004 to December 2007.  
Remittance data of the project:  
1. Effect of super - dry preservation on seeds  
The data is in Word format and contains a lot of analysis charts. A comparative study was conducted on the changes of vitality of overlord seeds and rhizoma coptidis seeds stored at 45℃, room temperature and 15℃ respectively, and the effects of dampening treatment, artificial aging and ultra-dry treatment on electrical conductivity and physiological activity indexes of seeds were conducted.The details are as follows:  
Energy change of seeds was preserved at 45℃  
FIG. 1 germination rate (%) of overlord seeds stored at 45℃、FIG. 2 germination index of overlord seeds stored at 45℃、FIG. 3 vigor index of the seeds stored at 45℃.  
Change of seed vigor at room temperature  
FIG. 4 germination rate (%) of overlord seeds stored at room temperature、FIG. 5 germination index of overlord seeds stored at room temperature、FIG. 6 vigor index of overlord seeds preserved at room temperature.  
15℃ preservation of seed vitality changes  
FIG. 7 germination rate of overlord seeds stored at 15℃ (%)、FIG. 8 germination index of alba seeds stored at 15℃、FIG. 9 vigor index of the seeds stored at 15℃.  
Changes of seed vigor of rhizoma coryzae at 45℃  
FIG. 10 germination rate (%) of rhizoma coptidis seeds stored at 45℃、FIG. 11 germination index of the seeds of rhizoma coryzae at 45℃、FIG. 12 vigor index of seeds of corydalis corydalis preserved at 45℃.  
Changes of seed vigor of rhizoma coryzae at room temperature  
FIG. 13 germination rate (%) of rhizoma corydalis seeds preserved at room temperature、FIG. 14 germination index of seeds preserved at room temperature、FIG. 15 vigor index of seeds of corydalis corydalis preserved at room temperature  
Changes of seed vigor of rhizoma corydalis in 15℃ storage  
FIG. 16 germination rate (%) of rhizoma coptidis seeds stored at 15℃、FIG. 17 germination index of the seeds of rhizoma coptidis preserved at 15℃、FIG. 18 vigor index of seeds of corydalis sativus preserved at 15℃  
Effect of slow wetting treatment on relative conductivity of seeds  
FIG. 28 changes in the relative conductivity of arrobatus seeds without dampening treatment、FIG. 29 changes of relative conductivity of overlord seeds after slow wetting treatment、FIG. 31 changes of relative electrical conductivity of seeds of rhizoma coryzae after dampening treatment  
Effects of artificial aging treatment on seed of archaea chinensis l  
FIG. 34 effects of artificial aging treatment on germination rate of overlord seeds、FIG. 35 effect of artificial aging treatment on seed vigor index、FIG. 36 effects of artificial aging treatment on the relative conductivity of overlord seeds  
Effects of artificial aging treatment on seeds of coryza sativa l  
FIG. 37 effect of artificial aging treatment on germination rate of seeds of coryza sativa l、FIG. 38 effect of artificial aging treatment on seed vigor index of rhizoma coryzae、FIG. 39 effects of artificial aging treatment on the relative electrical conductivity of the seeds of coryza sativa l  
Effects of artificial aging on the content of aldehydes in seeds after 15 days  
FIG. 52 effects of artificial aging treatment on the content of aldehydes in the seeds after 15 day、FIG. 53 effects of artificial aging treatment on the content of aldehydes in seeds of prunus chinense after 15 days,  
Effect of super - dry treatment on physiological activity index of seed  
Table 31 effect of super - dry treatment on physiological activity index of monkshood seed  
Table 32 influence of hyperdrying treatment on physiological activity index of seeds of coryza sativa l  
2. Micromorphological and structural characteristics of the skin of desert plants (including experimental conditions, microscopic images of the skin microstructure and analysis of distribution of 47 plants, genus, species code, list of length and weight of long and short axes of seeds, and list of seed elements)

2、Keywords

Theme：Desert,Vegetation,Species,Vegetation dynamics,Desert ecosystem  
Discipline：Terrestrial Surface  
Places：Gansu Province, Hexi  
Time：2004-2006

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：4.66MB

4.Data format：文本

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：42.88 | - |
| west：92.73 | - | east：108.8 |
| - | south：35.57 | - |

5、Time frame:2004-01-06 08:00:00+00:00--2007-01-05 19:59:59+00:00

6、Reference method

References to data:

AN lizhe. Dataset of reproductive strategies of desert plant population in Hexi region of Gansu province (2004-2006). A Big Earth Data Platform for Three Poles, doi:10.11888/Ecolo.tpdc.2706292010

References to articles:

安黎哲等, 2009. 荒漠植物种子超干保存及种皮微结构特征信息,兰州大学

7、Supporting project information

8、Data resource provider

name: AN lizhe  
unit:   
email: lizhean@lzu.edu.cn