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## Research on Rejuvenation and Replacement Cultivated Technology of *Salix psammophila* in the Hobq Desert

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## Research on rejuvenation and replacement cultivated technology of *Salix Psammophila* in the Hobq desert

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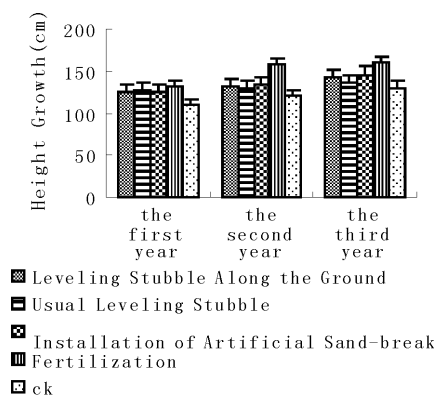
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**Key words :** the Hobq desert ,*Salix psammophila* ,rejuvenation and replacement ,height growth ,stem growth

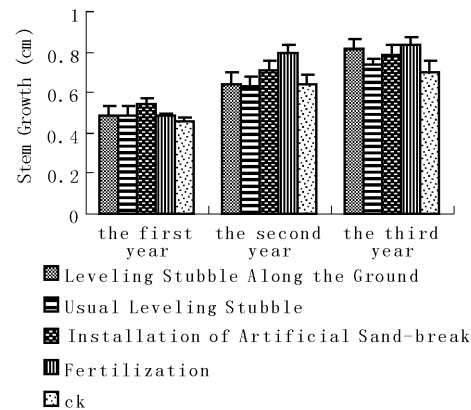
**Introduction** *Salix psammophila* is an important species of windbreak , sand-fixation and industrial timber forest in arid and semi-arid area . Recently , Ecological Environment of natural *Salix psammophila* forest was destroyed severely . In this study , We tried to find the effect on height growth and stem growth of *Salix psammophila* .for four kinds of different treatments including Installation of Artificial Sand-break ,Leveling Stubble Along the Surface of the Ground ,Usual Leveling Stubble , Fertilization .

**Materials and methods** The research was about declining *salix psammophila* bushes in the east of the Hobq Desert . Technical methods :(1) Installation of Artificial Sand-break (Specification : 20cm high , checker board , porosity 20% -25% ) .(2) Leveling Stubble (Along the Surface of the Ground) (3) Usual Leveling Stubble (remains 20cm Stubble) .(4) Fertilization (dug a ditch of 20 cm deep filling 2 kg organic fertilizers around each *salix psammophila* bushes) .The data of four kinds of different treatments were analysed by using SAS9 .0 .

**Results** The results showed that four kinds of different treatments were all beneficial to height growth of *salix psammophila* bushes ( $P < 0.05$ ) . Compored with check sample , height growth of *salix psammophila* bushes which were treated with Artificial Sand-break ,Leveling Stubble Along the Surface of the Ground ,Usual Leveling Stubble ,Fertilization had increased by 10 .07% ,6 .06% ,12 .91% ,23 .18% ,respectively (Figure 1) . It is noteworthy that four kinds of different treatments were helpful to stem growth of *salix psammophila* bushes ( $P < 0.05$ ) . Compored with check sample , stem growth of *salix psammophila* bushes which were treated with Artificial Sand-break ,Leveling Stubble Along the Surface of the Ground ,Usual Leveling Stubble ,Fertilization had increased by 5 .20% ,3 .28% ,4 .90% ,3 .80% ,respectively (Figureure , 2) .



**Figure 1** Height growth of *Salix psammophila* by different treatment in three years .



**Figure 2** Stem growth of *Salix psammophila* by different treatment in three years .

**Conclusions** The results showed that four kinds of different treatments were all beneficial to rejuvenation and replacement of *salix psammophila* bushes ( $P < 0.05$ ) . Comprehensive effect of Fertilization was helpful to height growth of *salix psammophila* bushes . On the other hand , Leveling Stubble Along the Surface of the Ground had much more effects on stem growth .