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Comparison of agronomy characteristics at different types of fall dormancy groups in north China

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Key words alfalfa , fall dormancy , agronomy characteristics

Introduction Fall Dormancy is one of the most important traits of an alfalfa variety , which affects adaptation , yield , persistence and quality . Fall dormancy is described and quantified as the degree of growth (plant height) during the fall . The objective of this trial was to compare the agronomy characteristics at different types of fall dormancy groups in north china .

Materials and Methods The trial was conducted in shunyi region of beijing . Seed was planted in sep 2005 . Fifty Medicago sativa species in trial which from home and abroad . Complete random block design . Three replicates , plots area $2.5 \times 4\text{m}$, Single plant .

Results and Discussion Though cluster analysis based on regrow height in autumn , 50 varieties of alfalfa were divided into four groups : fall dormancy , semi-dormancy , non-dormancy , and extremely non-dormancy . Compares the unifoliolate intermode length , stem diameter , node number regorw height and winter rates traits in different groups of Fall dormancy rating . The results showed that significant differences between regorw height and winter rates . The relevant analysis showed that there is a significant negative correlation between fall dormancy rating and winter rates (-0.921) ; and a significant positive correlation between regorw height and fall dormancy rating(0.989) .

Table 1 The mean and coefficient of agronomy characteristics within the different types of fall dormancy groups .

indexes	fall dormancy		semi-dormancy		non-dormancy		extremely dormancy		SIG .
	Mean	C .V (%)	Mean	C .V (%)	Mean	C .V (%)	Mean	C .V (%)	
unifoliolate intermode length	0.250	2.000	4.361	0.938	6.731	0.390	6.978	0.333	0.244
node number	6.845	0.054	6.679	0.084	6.998	0.288	6.135	0.043	0.364
stem diameter	18.528	0.067	18.419	0.064	18.190	0.086	18.445	0.059	0.543
regorw height	15.392	0.290	29.614	0.190	41.930	0.113	58.288	0.058	0.000
winter rates	0.730	0.123	0.531	0.261	0.459	0.259	0.240	0.648	0.000

References

- Barnes D K ,Smith D M ,Strucker R E ,et al .Fall dormancy in alfalfa :a valuable predictive tool[A] .Agricultural Reviews and M annuals ,Science and Education Administration[C] .Washington ,DC :U .S .Gov .print office .1979 :34 .
L .R .Teuber ,K .L .Taggard ,et al .Fall dormancy .Standard Teats to Characterize alfalfa cultivars .1998 .

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