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The XXI International Grassland Congress / VIII 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

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Experiment of *Leymus Chinensis* in raising diary cows

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Key words : lactating cows , *Leymus Chinensis* , hay , *Paspalum distichum* , milk performance

Introduction *Paspalum distichum* is a widespread weed in South China , with low-nutritive quality and poor palatability when it dries in autumn and winter . *Leymus Chinensis* is a good quality grass with high nutrition and good palatability in the autumn , but the price of hay and the transportation cost are both high . So the authors have done a feeding trial with dairy cows to examine the value of *Leymus Chinensis* .

Materials and Methodology In Guangzhou Zhujiang Cattle Farm , using the cow's age , parity , weight , birth date and milk performance , we chose 14 similar Holstein lactating cows and randomly divided them into an experimental group and a control . The experimental group was fed with *Leymus Chinensis* hay , 7kg/per cow per day , and the control group was fed with the same amount of dry weeds ; The nutrient composition of *Leymus Chinensis* and weed hay was as following respectively : DM 88.0% 84.0% ;CP 5.1 3.4 ;EE 3.1 0.8 ;CF 30.6 21.1 ;NFE 45.3 54.0 ;ASH 3.9 4.6 ;Ca 0.32 0.19 ;P 0.06 0.10 ;NDF 63.5 58.9 ;ADF 35.4 31.9 ;NEL(MJ/kg) 4.31 3.48 . While the other ingredients of feedstuff were the same for both groups , including refined stuff, beery residue, and dry cassava . The experimental period was 27 days , including 7 days of pretest and 20 days of formal test . The daily average milk performance of both groups was recorded . Non Paired Samples T Test was used to analyze experimental data , The fat/milk ratio was transformed via ArcSin change before statistical analysis .

Results and Analysis During the test period , the average milk production of cows in the control group was 19.88 kg/per cow per day and 21.99kg/per cow per day for the experimental group . This difference was highly significant (F=90.09) ,(P<0.01) . And nutrient analysis of milk composition indicated no significant difference of the fat/milk ratio between the two groups (P>0.05) .

Discussion In a later stage of the experiment , the experimental group ate 6.5kg/per cow per day and controls ate 5.5kg/per cow per day . Judging from above data , it appears the proportion of coarse fibre in the daily feedstuff was lower for the control group and not adequate to stimulate rumen fermentation . This can easily cause hyperirritability and low disease resistance . This experiment found that *Leymus Chinensis* had a peculiar aroma and good palatability , it not only increases the milk performance and keep cows healthy , but it also improves milk quality . Thus it is worthwhile to popularize in South China .

References

Ye Shu-sheng , 1998 .The Experiment of Replacing Refined Feedstuff in Part with Succulence in Dairy Cow Feeding . *China Dairy Cattle* , (3) :21-22 .