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研究简报

留茬高度与刈割时株高对墨西哥玉米产量及饲用品质的影响

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摘要 在大田条件下，比较了不同留茬高度和刈割时株高对墨西哥玉米（Euchlaena mexicana）产量和饲用营养品质的影响，采用概略养分分析法评价其饲用价值。结果表明，留茬30 cm处理的总鲜草产量为14.1 kg • m-2，总干草产量为1.90 kg • m-2，显著高于留茬20 cm和留茬10 cm处理；其粗蛋白（CP）和粗纤维（CF）含量较高，粗灰分（CA）和无氮浸出物（NFE）含量较低。株高130 cm时刈割与对照处理（株高95 cm）的产量差异不显著，但其CP、NFE含量较低，CA和CF含量较高；株高60 cm刈割处理的CP、NFE含量高，CA和CF含量低，但产量显著低于对照处理。综合分析5项饲用营养成分和总能量（GE）产量，留茬高度30 cm、株高95 cm时刈割可实现墨西哥玉米生产的高产优质。

关键词 墨西哥玉米 刈割 留茬高度 刈割时株高 产量 饲用品质

分类号 S816，S513

Effects of Stubble Height and Clipped Plant Height on Yield and Forage Quality of Euchlaena mexicana

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Abstract A field experiment was carried out to study the effects of stubble height and clipped plant height on yield and forage quality of Euchlaena mexicana. The crude nutrient analysis method was used to evaluate the forage nutritive quality. The results showed that the yield of the treatment with 30 cm stubble (treatment Ⅱ)was the highest as compared with those with 20 cm and 10 cm stubble. The fresh and dry matter yields of the treatment were 14.1 kg • m-2 and 1.90 kg • m-2, respectively. The contents of crude protein (CP) and crude fiber (CF) were higher and those of crude ashes (CA) and nitrogen-free extract (NFE) were lower when the stubble height was 30 cm. The yield of treatment Ⅳ (the plant was clipped at 130 cm height) and the control (the plant was clipped at 95cm height) was not significantly different, however, the content of CP and NFE was lower and CA and CF was higher in treatment Ⅳ than in control. The CP and NFE content of treatment Ⅲ (the plant was clipped at 60 cm height) was the highest and its CA and CF content was the lowest, while its yield was lower than that of control significantly. According to the yield of five forage nutritive indexes (CP, CA, EE, NFE and CF) and the gross energy (GE), the treatment with 30cm stubble and 95cm clipped plant height was the ideal cutting pattern for Euchlaena mexicana, providing higher yield and quality.

Key words Euchlaena mexicana；Clipping；Stubble height；Clipped plant height；Yield；Forage quality

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