

研究论文

# 不同类型饲用作物营养成分的比较研究

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**摘要** 对3种类型饲用作物杂交苏丹草皖草2号、墨西哥玉米和粮饲兼用玉米农大108进行了比较。结果表明,鲜、干物质产量以皖草2号最高,墨西哥玉米其次,农大108最低。皖草2号和墨西哥玉米叶片是干物质产量构成的主体,对农大108茎秆是主体。皖草2号粗蛋白(CP)、无氮浸出物(NFE)、酸性洗涤纤维(AWF)、粗脂肪(EE)、粗灰分(CA) 5大养分产量均显著高于墨西哥玉米和农大108,其粗蛋白和粗灰分含量均低于墨西哥玉米高于农大108。皖草2号总能量(GE)极显著高于墨西哥玉米和农大108,分别高出 $1\ 448.024 \times 106\ J \cdot hm^{-2}$ 和 $2\ 339.687 \times 106\ J \cdot hm^{-2}$ 。农大108干物质和粗蛋白降解率最高,分别为57.880%和12.424%。墨西哥玉米粗纤维的降解率显著高于皖草2号,但它们的干物质和粗蛋白降解率差异不显著。3种类型饲用作物营养价值差异来自其生物学特性的显著差异。

**关键词** [饲用作物](#) [类型](#) [营养成分](#) [比较](#)

分类号 [S544](#)

## Comparison of Nutritive Composition in Different Types of Forage Crops

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**Abstract** Three kinds of forage crop, Sudan Grass—Wancao2, *Euchlaena perennis* Hitchc. and ND108 which is also used as a food were used to compare the nutritive composition. Both fresh matter yield and dry matter yield of Wancao2 was the highest, that of *E. perennis* the median, and ND108 the lowest relatively. Main component of dry weight was leaves in Wancao2 and *E. perennis*, while stems in ND108. The yields of crude protein(CP), nitrogen-free extract(NFE), acid-washed fiber (AWF), ether extract (EE) and crude ashes (CA) were higher in Wancao2 than in *E. perennis* and ND108 significantly, however, the content of CP and CA was the highest in *E. perennis* and the lowest in ND108. In addition, the total energy (GE) of Wancao2 was  $1\ 448.024 \times 106\ J \cdot hm^{-2}$  and  $2\ 339.687 \times 106\ J \cdot hm^{-2}$  higher than that of *E. perennis* and ND108, respectively. The degradation rate of dry matter and CP were the highest in ND108, which was 57.880% and 12.424%. The degradation rate of crude fiber was higher in *E. perennis* than in Wancao2. The differences of degradation rate of CP and dry matter between *E. perennis* and Wancao2 are not significant. In conclusion, the difference of nutrition among the three kinds of forage crops results from their different biological characteristics.

**Key words** [Forage crop](#) [Type](#) [Nutritive composition](#) [Comparison](#)

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