光谱学与光谱分析

Content of Nutritional Elements in Sudangrass and Ryegrass Determined by ICP-AES

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收稿日期 2010-3-19 **修回日期** 2010-6-6 **网络版发布日期** 2011-9-1

摘要 The sudangrass (*Sorghum sudanense*) and ryegrass (*Lolium multiflorum* L.) rotation is a new type of cropping system, which has developed rapidly in recent years in the south of China. The contents of nutritional elements for forage grass in the sudangrass and ryegrass rotation system were determined by ICP-AES. The results showed that there were abundant and essential nutritional elements for animals in sudangrass and ryegrass. The contents of P, K, Ca, Mg, S, Fe, B, Cu, Zn and Mn for sudangrass were 0.20%～0.29%, 1.94%～2.57%, 0.62%～0.97%, 0.39%～0.69%, 0.12%～0.18%, 108.35～180.12, 3.04～5.96, 6.17～10.02, 20.37～31.36 and 46.80～101.29 mg·kg^{-1}, respectively. The contents of P, K, Ca, Mg, S, Fe, B, Cu, Zn, Mn for ryegrass were 0.39%～0.70%, 3.77%～5.07%, 0.61%～0.84%, 0.28%～0.47%, 0.32%～0.41%, 291.65～632.20, 2.13～3.23, 13.29～15.19, 30.73～42.98 and 92.08～156.04 mg·kg^{-1}, respectively, and there were differences between various periods in nutritional elements in the two forage grasses. The application of ICP-AES could reflect fast and efficiently the content of nutritional elements for forage grass as animals feed.

关键词 ICP-AES Sudangrass Ryegrass Nutritional elements

分类号 O657.3

DOI: 10.3964/j.issn.1000-0593(2011)09-2555-03

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