ONLINE ISSN : 1349-1008
PRINT ISSN : 1343-943X

Plant Production Science
Vol. 9 (2006) , No. 4 408-414

[PDF (665K)] [References]

Feeding Value and *In situ* Digestibility of Edible Canna for Silage

Hajoon Jun[1)], Ikhwan Jo[1)], Soon Hwangbo[1)], Jusam Lee[2)] and Katsu Imai[3)]

1) College of Natural Resources, Daegu University
2) Department of Biological Resources & Technology, Yonsei University
3) School of Agriculture, Meiji University

(Received: August 4, 2005)

Abstract: To assess the potentiality of edible canna (*Canna edulis* Ker-Gawl.) as economically and environmentally sound animal feed, the feeding value of silage prepared from aboveground parts was examined, in parallel with studies on *in situ* digestion in the rumen among three local varieties. Contents of crude protein, acid and neutral detergent fibers and crude ash in canna silage were significantly higher, and that of nonstructural carbohydrate was significantly lower than in corn silage. The pH of corn and 'yellow flower' canna silages were significantly lower (3.8—3.9) than either 'green stem' or 'red stem' canna silage (4.4—4.9). The contents of lactic acid, acetic acid, total organic acid and the Flieg's score of 'yellow flower' canna silage were equivalent or superior to those of corn silage. The rate of disappearance of dry matter in the rumen was significantly higher for corn silage than for canna silage, while the disappearance of neutral detergent fiber in canna silage was more rapid during the first 12 hours of incubation, but less rapid thereafter. The effective degradability of dry matter and organic matter of canna silage in the rumen was significantly higher than that of corn. Silage made from edible canna has a potential as a feed for ruminants.

Keywords: *Canna edulis*, Feed analysis, *In situ* digestibility, Rumen, Silage fermentation

[PDF (665K)] [References]

Download Meta of Article[Help]
RIS

doi:10.1626/pps.9.408

JOI JST.JSTAGE/pps/9.408