VITAMIN AND SELENIUM CONTENT OF RIBEYE CUTS FROM GRASS- AND GRAIN-FINISHED BISON OF THE SAME HERD

JUDY A. DRISKELL[1,3], MARTIN J. MARCHELLO[2], DAVID W. GIRAUD[1] and AHMAD SULAEMAN[1,4]

[1]*Department of Nutrition and Health Sciences*
University of Nebraska
Lincoln, NE 68583-0806

[2]*Department of Animal and Range Sciences*
North Dakota State University
Fargo, ND 58105-5727

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ABSTRACT

Individual ribeye cuts from 10 grass- and 8 grain-finished bulls of the same herd were analyzed for vitamin and selenium content. Vitamin A, vitamin E, thiamin, vitamin B_6, vitamin B_{12} and selenium concentrations of ribeye cuts from grass- and grain-finished bulls were similar. Vitamin C and folic acid levels were not detectable in ribeyes from both groups. Ribeyes from grass-finished bulls contained significantly higher quantities of β-carotene ($P < 0.0005$) and niacin ($P < 0.01$) and significantly lower ($P < 0.0001$) quantities of riboflavin than those from grain-finished bulls. Bison ribeyes from both groups were rich sources (>20% Daily Values) of vitamin B_{12} and selenium and good sources (10–19% Daily Values) of thiamin, niacin and vitamin B_6.

INTRODUCTION

Many consumers eat bison (*Bison bison*), also known as North American buffalo, an alternative meat source. Over 350,000 bison are currently being raised for meat in North America (National Bison Association 2004). Bison meat is low in fat and food energy and high in protein (Marchello *et al*. 1989, 1998; Koch *et al*. 1995). Bison meat also contains appreciable amounts of minerals, with the exceptions of calcium and sodium (Marchello *et al*. 1998).

[3] Contact author. TEL: 402-472-8975; FAX: 402-472-1587; EMAIL: jdriskell@unl.edu
[4] Current address: Jurusan Gizi Masyarakat dan Sumberdaya Keluarge, Fakultas Pertanian, Institut Pertanian Bogor, Kampus Darmaga, Bogor, Indonesia.

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