

## 2.8 FACILITIES

### 2.8.1 Experimental Farm

Experimental Farm was first established in the north part of Kyoto Campus in 1924, and its head office was then moved to Takatsuki City, Osaka in 1928. It consists of four groups : Paddy Field, Pomology, Vegetative Crop Science and Kosobe Conservatory in Takatsuki Farmstead.

The Experimental Farm provides the Subject on Agricultural Technology and Farm Practice, and some lectures, seminar and experimental works to educate undergraduate and graduate students.

The Laboratory of Plant Production Control was also established in the Experimental Farm in 1998. Its teaching staffs and special students are making research works on Plant Production Control Science.

The Experimental Farm is also used for an experimental field to make cooperative research works with outside researchers, and for a plant resource conservation field.

Kyoto Farmstead being another group of Experimental Farm in the north part of Kyoto Campus, locates in Kitashirakawa, Sakyo-ku, Kyoto City. It is mainly used for an experimental field of Division of Agronomy and Horticultural Science.

Staff	Director (Concurrent service),	Professor	: Yamada, Toshiaki, Dr.Agric.Sci. (-2008.3)
	Director	Professor	: Yamada, Toshiaki, Dr.Agric.Sci. (-2008.3)
		Associate Professor:	Kitajima, Akira, Dr.Agric.Sci.
		Assistant Professor :	Kataoka, Keiko, Dr.Agric.Sci.
		Assistant Professor :	Teraishi, Masayoshi, Dr.Agric.Sci.
		Assistant Professor :	Fudano, Takashi, M.Agric.Sci.
		Assistant Professor :	Habu, Tsuyoshi, Dr. Agric.Sci.
		Assistant Professor :	Katsura, Keisuke, Dr.Agric.Sci.
		Technical Staffs	: Konishi, Tsuyoshi
			Sakakibara, Toshio
			Kagata, Hisashi
			Nonaka, Katutoshi
			Okamoto, Norishige
			Nishikawa, Kouji
			Kusumi, Kouji
			Wada, Ryouichi
			Minami, Hirohisa
			Wakahara, Hiroyoshi
			Nara, Noboru
			Kishida, Fumio
			Matsuda, Masaru
			Yasuda, Mika
			Morikita, Miki (-2007.5)



growth of the weed.

- b) Fundamental studies on functional development in beef cattle and studies on soil characteristics in the pasture

In corporation with related laboratories, bioavailability of vitamin C drugs (laboratory of nutritional science), material cycle (laboratory of animal husbandry resources), mineral metabolism in cows (laboratory of animal physiology and functional anatomy) behavior analysis of grazing cattle (graduate school of informatics), search for neuroprotective substances in cow placenta (graduate school of pharmaceutical sciences) and nitrate-nitrogen budget in the pasture (laboratory of Soil Science) are examined. Feeding several vitamin C drugs in fattening cattle were in particular examined. By the use of appropriate feeding method and sampling time, it was cleared that dose responses of one kind of vitamin C drug were observed in plasma VC concentration and urinary VC/CR ratio (CR:creatinine).

- c) Studies on evaluation of effective culture of *Euglena* utilizing methane-fermentation digester and conversion of dried those into feed

In the methane-fermentation establishment utilizing livestock manure, treatment for large quantity of methane-fermentation digester is urgent subject. In corporation with another five research institutions, effective culture technique of *Euglena* utilizing methane-fermentation digester was established, *Euglena* drying method clarified and safety and functionality about dried those were estimated as feed.

## A-2. Publications and presentations

- a) Publications

### ***Books.***

Moriya K. and Kitagawa M.: Chapter 7 The latest though traditional animal production system, New challenge to animal production( edited by Imai), pp.217-244, Kyoto University Press, Kyoto, 2007 (in Japanese)

### ***Original papers***

Padilla, T Matsui, S Ikeda, M Kitagawa, H Yano: The effect of vitamin C supplementation on plasma concentration and urinary excretion of vitamin C in cattle. *J.Anim.Sci.*, 85: 3367-3370, 2007

### ***Reviews***

Kitagawa M.: Feeding and Availability of vitamin C for fattening cattle. *Yougyu no Tomo*, 378:32-34, 2007

Kitagawa M.: Application of vitamin C for fattening cattle① ② ③. *The Beef Cattle Magazine*, 20(9:66-69/10:58-61 2007), 21(2:50-54 2008)

### ***Reports***

Kitamura, S., Matsuyama,T., Murakami, H., Matsuhira, N.,Nagase, H.and Yoshioka, H.: Research study on the body weight change of cow before and after parturition in livestock farm. Reports of 10th study meeting of technical officials: 45-47. Graduate School of Agriculture, Kyoto University. 2008 (in Japanese)

Yoshioka, H., Matsuyama,T., Murakami, H., Matsuhira, N.,Nagase, H.and Kitamura, S.: Research study on the effect of pedigree on performance test in livestock farm. Reports of 10th study meeting of technical officials: 63-67. Graduate School of Agriculture, Kyoto University. 2008 (in Japanese)

b) Conference and seminar papers presented

The 56th Meeting of Kansai Society of Animal Science: 2 presentations

The 108th Meeting of Japanese Society of Animal Science: 2 presentations

The 45th Annual Meeting of Beef Cattle Science: 2 presentations

The Sendai Meeting of Grassland Science: 1 presentation

The 109th Meeting of Japanese Society of Animal Science: 3 presentations

### **A-3. Off-campus activities**

#### ***Membership in academic societies (roles)***

Kitagawa, M.: Japanese Society of Livestock Management (Councilor), Society of Beef Cattle Science (Councilor), Animal Science Systems Society (Councilor), The Japan society for Meat Production (representative)

#### ***Research grants***

Monbukagakusho Research Grant: Grant-in-Aid for Scientific Research (B) Studies on development and evaluation of environmentally sound animal production systems aiming to crop and animal integration (Head: Hirooka, Sharer: Kitagawa),

JSPS Postdoctoral Fellowship for foreign researchers Studies on vitamin C nutrition in various conditions of beef cattle(Head: Kitagawa)

Research Project for utilizing advanced technologies in agriculture, forestry and fisheries: Evaluation of effective culture of Euglena utilizing methane-fermentation digester and conversion of dried those into feed (Head: Kitagawa)

### **B. Educational Activities (2007.4-2008.3)**

#### **B-1. On-campus teaching**

a) Course given

Undergraduate level:Livestock Production Techniques and Practice I (Kitagawa )

Livestock Production Techniques and Practice II (Kitagawa et al)

Fundamentals for the Experiments for Bioresource Science (Kitagawa et al)

Graduate level : Feeding and Management for Beef Cattle ( Kitagawa)

#### **B-2. Off-campus teaching, etc**

##### ***Part-time lecturer***

Kitagawa, M.: The University of the Air (Special Lecture)

Kitagawa, M.: Kyoto University of Education (Cultivation and Feeding Practice II)