

\_\_\_\_\_ ABSTRACT \_\_\_\_\_

**Relationship between serum biochemical values and marbling scores in  
Japanese Black steers.**

*Adachi K<sup>1</sup>, Kawano H, Tsuno K, Nomura Y, Yamamoto N, Arikawa A, Tsuji A, Adachi M, Onimaru T, Ohwada K*

*1 Veterinary Clinic and Training Center, Miyazaki Federation of Agricultural Mutual Aid Association, Shintomi, Japan*

In order to obtain available biochemical parameters related to the marbling score (MS), by which the meat was graded from 1 to 12 in Japan, serum biochemical values were examined in 13 Japanese Black steers during the fattening stages. The steers were divided into high MS (8-11) and low MS (4-5) groups and the fattening stage was also divided into 4 stages according to their feed contents; Stage I (11-13 month-old; 0-4 months after the fattening (af)), II (5-9 months af), III (10-14 months af), and IV (15-20 months af). High MS group showed significantly higher levels in glucose and urea nitrogen (at Stage I), albumin/globulin ratio (at Stage II), and magnesium (at Stage I and III), and lower level in vitamin A (at Stage III) than low MS group. These biochemical parameters, indicating conditions of steers during the fattening stages, are considered to have a possibility related to MS in fattening steers.

END