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Effects of Wormwood and Green on in situ DMD and CPD, and the ERD

Shin Ja Lee, Nyeon Hak Shin, Yea hwang Moon[1] and Sung Sill Lee

Division Of Applied Life Science(Bk 21 Program), Graduate School of Gyeongsgang National University, Korea
[1]Department of Animal Science & Biotech, Jinju National University

The objective of this study was to examine the effects of Wormwood and Green tea on in situ dry matter and crude protein degradability in the rumen by two rumunally cannulated Holstein bulls. The roughages for these experiments were Rice straw, Timothy, Alfalfa, Wormwood and Green tea. In experiment, the rumen DMD (Dry matter digestibility) of green tea is significantly (P<0.05) higher than roughages, and that of rice straw also significantly (P<0.05) lower than whole roughages. ERD(Effective rumen degradability) was high in order, Wormwood, Alfalfa, Green tea, Timothy and Rice straw with the ERD value of 64.78, 60.98, 46.15, 38.41 and 26.02%, respectively. The CPD (Crude protein degradability) of green tea is significantly (P<0.05) higher than roughages, and that of rice straw also significantly (P<0.05) lower than whole roughages. ERD (Effective rumen degradability) was high in order, Alfalfa, Timothy, Wormwood, Green tea and Rice straw with the ERD value of 80.75, 71.13, 71.11, 44.99 and 28.89%, respectively.

Key words: Dry matter digestibility, Crude protein degradability, Effective rumen degradability

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Triathlon race on immune responses

Chan-Ho Park[1], Yi-Sub Kwak* and Young-Wan Jin*

Department of Physical Education, Dong-Eui University, 995 Eomgwangno, Busanjin-gu, Busan 614-714, Korea
[1]Department of Physical Education, Pusan National University, Jangjeon-dong, Geumjeong-gu, Busan 609-735, Korea.

This study was designed to examine the changes of immunological markers in elite (n=7) and club amateur (n=7) triathletes, who completed the 2006 TONG YUNG international triathlon race, by investigating changes of total amounts of leukocytes, neutrophils, lymphocytes, monocytes, Igs, IL-6, CK and CRP. Three days prior to the race, all participants was drawn a blood sample from an antecubital vein. Blood samples were also taken immediately after finishing the race, recovery period (2-hour after and 7-days after). The total amount of leukocyte immediately after triathlon race was significantly increased in both groups and significantly increased in the recovery time (p<0.05) The neutrophils immediately after triathlon race was also significantly increased in both groups and significantly increased in the recovery time (p<0.05). However, EG recovered after 7-day R. In the lymphocytes and monocytes, there were significantly increased immediately after triathlon race and recovery periods in both groups (p<0.05). However monocytes were no differences in the periods of 7-day R in both groups In immunoglobulins, IgA and IgG were significantly increased after triathlon race. However IgM was not significantly increased. In IL-6, CK, were significantly increased after triathlon race. However CRP was not significantly changed. In conclusion, triathlon induces an increased in leukocytes, neutrophils, IgG, IL-6, CK, and CRP (IgG & IL-6 in RG and CRP was not significantly different) and an decreased in lymphocytes, monocytes, IgA (RG only), and IgM (RG only) in both groups. Also, Elite triathletes responded more effectively and recovered more quickly than that of amateur triathletes after the prolonged exercises.

Key words: triathlon, immunologicalmarker, swim,cycling, running, CK, CRP