Investigation of physiological characteristics of TLRI Black NO. 1 pig in the hot and cool seasons

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In this study, the blood biochemistry and hematologic values of TLRI Black No.1 pigs were measured. Under Taiwan's cool season (January to March) and hot season (June to September), at least 8 pigs of each period were selected for blood testing, half barrow and half female. They were used as experimental animals and raised in traditional open pig houses. They were three stages, namely nursery, growth and the finishing period. At the periods, the pigs were fed with corn and soybean diets, with crude protein 19%, 17.5% and 13.5%, respectively. The results showed that the concentration of complete blood count of white blood cell, basophils, glucose and cortisol were significantly (P < 0.05) higher the whereas blood biochemical value of MCV, MCH, CREA, SGPT, TP, ALB, GLO and Alk-P were significantly (P < 0.05) lower in the hot season. The WBC, RBC, Hb, NET, LYM, GLU, BUN, UA, CPK, GOT, GPT, TP, TG, and cortisol were not influenced by seasons. We conclude that the cold and hot season environment will affect the blood biochemical value of TLRI Black No.1 pigs. These physiological characteristics of TLRI Black No.1 pigs in the different seasons can be used to improve the management of TLRI Black No.1 pigs in the future.

Key words: Black pig, Cool and hot season, Hematological and biochemical parameters.