**36 Evaluation of physicochemical properties and antioxidantive activities of pork patties containing various levels of bogbunja (Rubus coreanus) extract during refrigerated storage.** K. B. Chin*, S. Y. Park, S. Y. Park, H. C. Lee, and Y. J. Kim, *Dept. of Animal Science, Chonnam Natioanl University*, *Gwangju, Korea*.

This study was carried out to investigate antioxidative activities of water and methanol extracts from bogbunja (Rubus coreanus), and physicochemical properties of pork patties with various levels (0-5%) of bogbunja extract during refrigerated storage. For the determination of antioxidative activities of the bogbunja extracts as affected by extraction solvents, total pheonolic content(g/ 100g, dry base), 1,1`-diphenyl-2-picrylhdrazyl (DPPH) radical scavenging activity, reducing activity and iron chelation ability were measured. pH, chemical composition, physicochemical properties and microbiological changes of pork patties containing bogbunja extract with various levels were also evaluated during refrigerated storage. Total phenolic contents of methanol extract (6.76 g/100 g, dry base) were almost two-times higher than those of water extract (3.38 g/100 g, dry base). In addition, methanol extract had higher DPPH scavenging activity than water extract in the low levels (0.025~0.1%) ($P<0.05$), however, no differences were found ($P>0.05$) in the levels higher than 0.2%. Thus, DPPH radical scavenging activities of methanol and water extracts depended on the levels of extracts. Although no differences in iron chelation activities and reducing power values were observed between water and methanol extracts, the increased values were observed with increased level. Pork patties having bogbunja extract with various levels did not affect the product qualities, such as pH, hunter a values and microbial counts, however the increased level of bogbunja extract decreased lightness and yellowness values. The total bacterial counts (log cfu/g) increased, however, the redness values decreased with increased storage time. Thiobarbituric acid reactive substances (TBARS) of pork patties containing bogbunja extract were lower than those of control, and increased level of bogbunja extract decreased TBARS values during refrigerated storage. These results indicated that antioxidative activities were increased with increased levels of bogbunja extract in pork patties. In conclusion, bogbunja extract might be used as a natural antioxidant in ground meat products with optimum level (<3%).