The results conclude that potato peel extract at various concentrations possess very strong antioxidant activity, almost equal to synthetic antioxidants (BHA & BHT). Therefore, potato peel extract in oils, fats and other food products can safely be used as natural antioxidant to suppress lipid oxidation. However, the level of potato peel extract needed was 8-12 times higher than that of the synthetic antioxidants to control the development of rancidity during storage of cooking oils at elevated temperature [Rahman et al, Food Chem, 2004, 85(2), 215-220].