

## **Antioxidant effect of phenolic compounds against oil oxidation**

David Campos Gutiérrez  
Instituto de Biotecnología  
Universidad nacional agraria la Molina, Lima - Perú

The addition of synthetic antioxidants is a method for increasing the shelf life of lipids and lipids containing foods avoiding and retarding the oxidative rancidity. Antioxidants are compounds that extend the induction period of oxidation or slow down the oxidation rate. The most popular used in the past and even in the present, are those derived from phenolic structures such as BHT, BHA and TBHQ. Antioxidants can to suppress the peroxides development during storage and frying by scavenging free radicals, oxygen and chelating the metals. However, some of synthetic antioxidants have been questioned for their safety, their toxic and carcinogenic effects in animal and human have been reported, for that their use is permitted only for certain foodstuffs and under certain conditions. The use of TBHQ, the most potent synthetic food, not is permitted in countries, such as Japan, Canada, and the European Economic Community. These restrictions, as well as the growing consumer preference for natural food additives, have led to industry to the search of natural products as source of novel antioxidants. Antioxidant phenolic compounds presents in different plant extracts (such as, spices, herbs, fruit and vegetables) have demonstrated that exhibit substantial differences in antioxidant effectiveness in different fats and oils.

