

**Title** Shelf life of linseeds and peanuts in relation to roasting  
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### **Abstract**

Changes in the oxidative status of peanuts and linseeds during storage were investigated by the ESR spin trapping technique with *N-tert.* butyl- $\alpha$ -phenylnitron. It has proven to be a suitable method for the determination of the radical generating reactions in the very early stage of fat spoilage and deterioration reactions can still be detected, before changes in sensory properties are noticeable. Primarily, due to oxidative reactions of lipids, shelf life of peanuts and linseeds as well as their sensory quality decreases with storage time. Roasting has a controversial influence on the stability of linseeds and peanuts, respectively. Roasted linseeds became rancid more rapidly than fresh seeds. With increasing roasting temperature and time the oxidative stability of peanuts was improved and shelf life prolonged. This can be attributed to the formation of antioxidant Maillard reaction products. A correlation was found between the amount of deoxyosones as reactive Maillard reaction intermediates and shelf life of roasted nuts.