

SUNFLOWER KERNEL SHELF STABILITY STUDY

EXECUTIVE SUMMARY

Consumer demand for healthy ingredients in bakery, snack, and cereal products has risen dramatically over recent years. Sunflower seed is growing in popularity and offers a cost effective, flavor enhancing and nutritious alternative to other nuts and seeds. A perception of a short shelf life of sunflower kernel (sunflower seed with the hull removed) has limited its usage. This study shows that low oxygen packaging can prolong the shelf stability of roasted sunflower kernel for a full year, meeting the required shelf life of many packaged products.

The sunflower kernel referred to in this article is the standard high linoleic sunflower kernel. High oleic sunflower kernel, a special hybrid which has been shown to be stable because of its fatty acid profile, is also available in the marketplace but is not the subject of this study.

MAIN CONCLUSIONS OF THE STUDY

Low oxygen packaging increases shelf stability of roasted sunflower kernel. Acceptable sensory and chemical levels are maintained throughout the 52-week study period.

With no protection from exposure to oxygen, roasted sunflower kernel in cold storage is acceptable to 28-32 weeks; at room temperature 12-16 weeks and at 100° F approximately 8 weeks.

Raw sunflower kernel is stable.

SUMMARY OF PREDICTED SHELF LIFE OF SUNFLOWER KERNEL

Based on the results of both the chemical and sensory analysis, the shelf life for sunflower kernel is estimated in the following chart.

