

Peanut Flavor Traced to Oil Quality Factors

Although second in peanut exports, the United States stands first in peanut flavor and quality, says Agricultural Research Service plant physiologist Timothy H. Sanders, who has laboratory findings to prove it.

Sanders and scientists from other ARS labs analyzed peanuts for 3 crop years, 10 shipments each year, from Argentina, China, and the United States.

They evaluated many factors relative to flavor and shelf life. Peanuts grown in the United States consistently had better flavor and longer shelf life.

One of the South's leading cash crops since the 1800's, peanuts are a major vegetable oil source. Most of the peanuts produced are used domestically, but enough are exported to make the United States the world's second-largest exporter, trailing only China.

"Flavor is the basis for marketing, so it's vitally important to peanut processors and manufacturers worldwide," he says.

Sanders says that no single factor can reliably predict flavor or quality. However, the research did establish a significant positive relationship between several oil quality factors, shelf life, and roasted peanut flavor quality for peanuts from specific origins.

At the ARS Market Quality and Handling Research Unit in Raleigh, North Carolina, Sanders also found that blanching peanuts significantly increases oil stability and shelf life. Blanching is a heat treatment performed before roasting that removes the seed coat—a peanut's thin, red, slightly bitter skin.

Sanders says that blanching apparently inactivates one of the enzymes responsible for breaking down oils, thereby increasing oil stability.

Collaborating on the research were ARS scientists from the Southern Regional Research Center in New Orleans, Louisiana; Marketing Research Laboratory in Rotterdam, The Netherlands; and Soil Dynamics Research Laboratory in Auburn, Alabama.—By **Doris Stanley**, ARS.

Timothy H. Sanders is in the USDA-ARS Market Quality and Handling Research Unit, N.C. State University, Raleigh, NC 27695-7624; phone (919) 515-6312, fax (919) 515-7124. ◆