

Sort Peanuts

*SEEDMEISTER Mark IIIx
Tests & Sorts Peanuts for
Oleic & Linoleic Acid*

Determining Content of Fatty Acids

Oleic acid is a fatty acid that occurs naturally in several oils. Peanuts are a good source of high oleic acids that offer added benefits over other edible oils. Peanut breeders, growers, and food manufacturers desire to improve the quality of their products by having high oleic and low linoleic ratio.

Typically, laboratories test peanuts' acid content by gas chromatography (GC). This testing is costly, labor, and time intensive. The process involves the following steps in order to avoid destruction of the peanut:

- A small core is taken from the peanut.
- The core is prepared for analysis through several chemical steps, called methylation.
- Finally, the sample is analyzed, and results are reported.

Wearing of the GC columns by reagents requires heavy maintenance.

Breeding programs require vast numbers of peanuts to be rapidly analyzed and sorted at every stage, especially at harvest time.

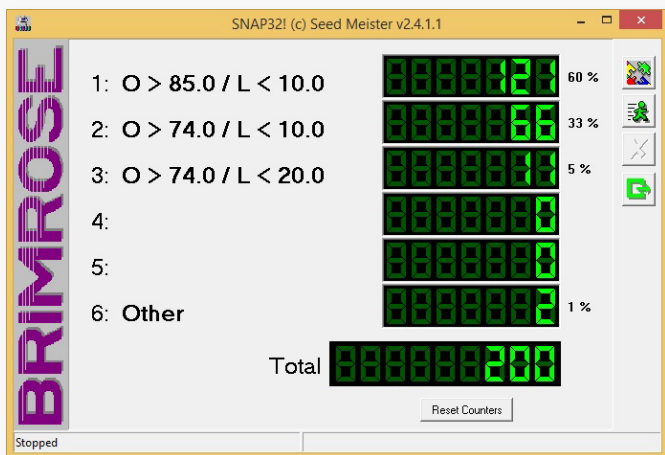


A Better Method...

AOTF-NIR spectroscopy is a non-destructive test method for rapidly sorting peanuts. The method involves the following steps:

- Models are built using established GC data.
- The SEEDMEISTER Mark IIIx is configured in a minimal amount of time to scan the seeds.
- Models are imported to the SEEDMEISTER's software for predicting the peanuts' concentration ratio of oleic and linoleic acids.

Peanuts are sorted to one of the gates based upon predicted results.



O = Oleic Acid L = Linoleic Acid



A Proven Benefit

Successful implementation of the SEEDMEISTER Mark IIIx has many proven benefits:

- The breeding cycle may be shortened.
- Minimizing GC use reduces chemicals and solvents that have serious health and environmental hazards.
- The SEEDMEISTER Mark IIIx may tests up to 100 seeds in 4 minutes, which would require more than 24 hours using GC.
- Hundreds, even thousands, of peanuts may be tested at a site with zero testing costs and without destroying the product. Producers and manufacturers will have very high confidence that the peanuts will meet their customers' specifications.

The SEEDMEISTER Mark IIIx is an accurate, repeatable, and low-cost solution for sorting peanuts.

Other types of seeds can also be measured and sorted with other Brimrose Spectrometers. Models have been developed for coffee beans, soybeans, watermelon, corn, and many more.

