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# Inside AOCS

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## Request for help

AOCS has received a request for any available free publications dealing with fats and oils technology from the Pacific Ocean island nation of Vanuata (about 500 miles west of the Fiji Islands, 250 miles northeast of New Caledonia).

Philip Gollob is director for the Soc. Civ. N.A., PO Box 266, Santo, Vanuatu (South Pacific). First, he is trying to find a copy of M.K. Schwitzer's book "Continuous Processing of Fats," which was reviewed in the March 1960 issue of *JAACS*. Beyond that, he is seeking donations of copies of *AOCS Official and Tentative Methods*, old journals, abstracts and bibliographies or other publications. Gollob will pay shipping costs. He also is seeking information specifically on coconut and palm oil processing, esterification of fatty acids to produce diesel fuels, separation of glycerol, acid and enzyme hydrolysis for fermentation, corn wet milling processes, fatty acid distillation, olive oil processing, and others.

Persons who might be able to help should write to Mr. Gollob, who says his organization is a not-for-profit unit. The materials will become part of the tech school research library.

## Southwest schedules five meetings

The AOCS Southwest Section will open its 1982-83 program year with a meeting Oct. 21, 1982, featuring a talk by Mike Flynn of Pacific Soap Co. on sulfonation using the new Chemithon jet reactor.

### Other meeting dates set:

Dec. 2, 1982, with AOCS President Karl Zilch giving a technical talk and Executive Director James Lyon speaking briefly about AOCS.

Jan. 27, 1983: Mary Wells of E.I. duPont on uses of statistical design in the chemical laboratory.

March 24, 1983: David Murray of Jacobs Engineering on design factors for laboratory scale-up to plant production.

May 26, 1983: annual guest night with a topic to be announced later.

The section's annual seminar will be held during February 1983 on a date and topic to be announced later.

Southwest Section members will receive notices about the meetings about two weeks before each event. Others seeking information should contact the section program chairman, Larry G. Copeland of Pilot Chemical Corporation in Santa Fe Springs, California.

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# Industry News

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## High oleic sunflower lines

Sunflower lines producing oil with 80% to 90% oleic acid content on an individual plant basis have been recently identified, according to Gerhardt Fick, research director at Sigco Research Inc., Breckenridge, Minnesota.

In a paper "Genetics and Breeding of Sunflower" presented at AOCS's annual meeting in May in Toronto, Fick said the high oleic lines do not appear to be temperature sensitive, as percentages fluctuate only 3 to 4% when grown in varying climates.

With seed now utilized, temperature does affect the relative proportions of oleic and linoleic acids in the oil, with higher temperatures resulting in higher oleic acid percentages. For example, sunflower oil from seeds grown in the northern production area of the U.S. consists of approximately 6% palmitic, 5% stearic, 18% oleic and 68% linoleic acids, while seed from the southern U.S. produces oil with a higher oleic acid percentage, although rarely above 40%.

Fick said limited production of high oleic hybrids is expected as early as 1983.

In his report, Fick said the average oil percentages of sunflower seed grown in the U.S. is about 44% on a dry weight basis. Several new hybrids are available that produce nearly 50% oil and experimental lines with as high as 63% oil have been reported. However, the latter have extremely thin hulls and the seeds are easily damaged in harvest and handling.

According to Fick, the average sunflower yields in the U.S. are currently between 1,100 and 1,200 pounds of seed per acre. Under favorable growing conditions and good management, seed yields of 2,000 pounds per acre are relatively common, with yields up to 3,000 pounds reported. Seed yields of experimental hybrids containing 5,000 pounds per acre have also been obtained in test plots. Consequently, the potential exists for higher yields through further breeding efforts and improved production practices.

## Two processing plants to open

Two new North Dakota sunflower-processing plants are slated to begin operating this fall while ground has been broken in South Dakota for the state's first oilseed plant.

A new sunflower crushing plant at Velva, North Dakota, is capable of crushing 1,000 tons of seed a day. The Velva plant, owned by Midwest Processing, was completed earlier this year, with test runs initiated during the summer and formal dedication held August 7. The second new plant, in Enderlin, is owned by National Sun Industries. Geared to crush 1,500 tons of seed daily, it was scheduled to begin operating this month.

Meanwhile, Sun Products Processing Inc. is building an 800-ton a day capacity sunflower processing plant in Ipswich, South Dakota. Ground was broken for the project this summer, with actual construction to begin in the spring of 1983. Completion is set for fall of 1984.