
Industry News

Fats and oils market analyzed

"The Oilseed Industry—Past, Present and Future" was discussed by more than a dozen speakers during a two-day program marking dedication of Cater-Mattil Hall at the Food Protein Research and Development Center at Texas A&M University.

Allen J. Ater, vice-president for commodity trading at Anderson Clayton, said expected world needs and supplies of edible oils will continue to rise, although not at the 4.5 to 5% annual increases seen in recent years.

The two oils with the most potential to fill world needs are palm oil, because of its high yield per acre, and soybean oil, because of continuing high demand for soy protein meal, Ater said.

"The major problems of very low consumption of fats and oils in many developing nations have been satisfied," Ater said, noting that these

demands created the rapid rise in annual world consumption in recent years. He expects continuing upward consumption, but not at as rapid a rate. India, China and the Soviet Union have changed from edible oil exporters to importers in order to improve diets and that trend, Ater said, "is irreversible."

Kent Mittelberg, general manager for protein and specialty feeds for A.E. Staley Mfg. Co., outlined the market for oilseed protein in human foods, again anticipating increasing consumption.

Presently, about 650 million pounds of edible soy protein are used each year, with about 30% of that being used in bakery products for functional purposes, 15 to 20% for functional purposes in processed meats, and another 20% as analogs and meat enhancers (a word Mittelberg prefers

to the term "extenders"), he said.

The growth of the soy protein market will be affected significantly by how federal regulators sort through various pending labeling and nutritional proposals, Mittelberg said. He is chairman of the Food Protein Council, a trade association of soy protein producing firms.

Other speakers outlined needs of their industries that the new Cater-Mattil facility and its companion research oil mill might help solve.

Kenneth Lewis, executive vice-president for the National Cottonseed Products Association, said the cottonseed industry needed help to improve labor efficiency and to reduce energy costs. Short courses could help improve labor efficiency, he said, whereas research could help determine ways to cut energy costs in cleaning of seed and processing costs. Cogeneration of power and steam with cottonseed hulls and new solvents to replace hexane are also research topics, Lewis said.

Harold Wilcke of Ralston Purina said improvement of animal feeds will require precise data on processing conditions. "Time, temperature, pressure and moisture must be controlled in experimental work," he said. "We need to know why we get the results we do in feeding tests." If there are no good ways to prevent development of aflatoxins, ways must be found to inactivate or remove aflatoxin from feed materials, Wilcke said.

William Barger of French Oil Mill Machinery Co. outlined engineering needs in the oilseeds industry, with process design, electrical power usage, solvent loss and automation cited as areas needing improvement. Higher interest rates mean capital costs need to be reduced, Barger said, and improved maintenance and accessibility are desirable. Improved short courses

U.S. soy crushings drop

U.S. soybean crushing during the six-month period ending in March 1981 was approximately 1.5 million metric tons (MT) below the corresponding period the previous season, Alan Holz, USDA oilseeds crop economist, said during the "Oilseed Industry—Past, Present and Future" program accompanying dedication of Texas A&M University's new Food Protein R&D Center.

Holz's figures showed U.S. crushers used 16.62 million MT of soybeans from October 1979 to March 1980, but only 15.03 million MT during October 1980 to March 1981. Total crushings in Brazil and Argentina were 2.96 million MT for the previous season and 5.39 million MT for the period ending March 1981.

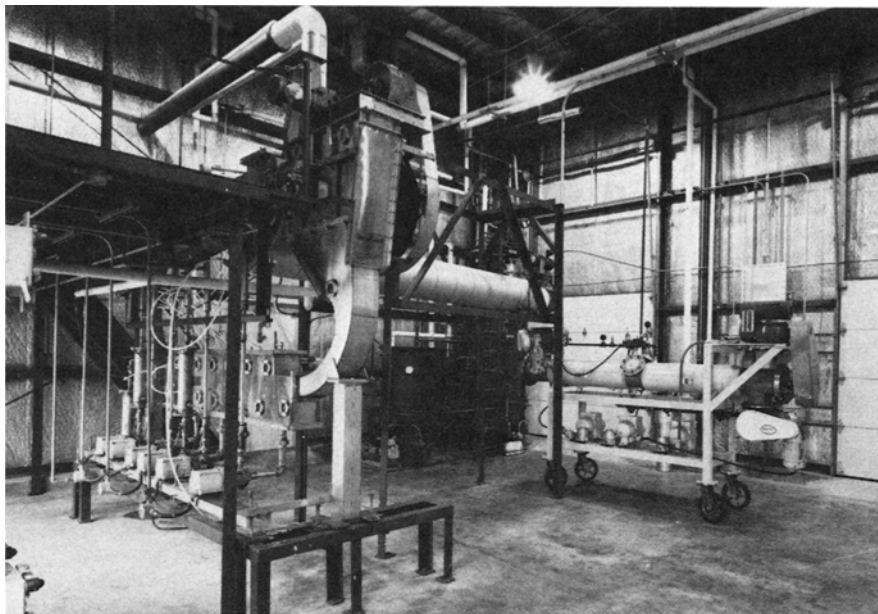
U.S. soybean exports totaled 11.29 million MT for the six months ending March 1981, compared to 13.97 for the same period the previous year, Holz said. Brazil and Argentina's combined soybean exports for the same periods were 940,000 MT and 120,000 MT.

Holz estimated 1981 harvested U.S. oilseed at 68.8 million acres for soybeans, 13.2 million acres for cotton, and 4.0 million acres for sunflower. □

for operators and better training aids are needed, he said.

Lambertus H. Princen of the USDA Northern Regional Research Center spoke on new oilseed crops with potential for industry and fuel use. One firm, he noted, contracted to have crambe grown on 1,000 acres this year (with harvest scheduled in June) as a potential source for industrial fatty acids. If the experiment is successful, there could be 30,000 acres under contract by 1983. His talk reviewed a variety of potential sources for short- and long-chain fatty acids. While the goal of providing national fuel needs from renewable resources appears to be beyond reach, he did estimate that 60 million acres of cropland could provide an alternate source for U.S. chemicals now coming from petroleum.

Other speakers during the meeting included Jack Whetstone, Texas Cottonseed Crusher's Association, on the History of Oilseeds Processing in Texas; James T. Lawhon, Food Protein R&D Center, on the Legacy of the Cottonseed Products Research Laboratory; W.J. Spain, Birdsong Peanuts, on Needs of the Peanut Processing Industry; Larry Kleingartner, North Dakota Sunflower Council, on the Rising Sunflower Industry; Dennis Blankenship, American Soybean Association, on Marketing U.S. Soybeans Overseas; Gay M. Jividen, Cotton Inc., on Producer Sponsorship of Cotton and Cottonseed Research; and Rhond Roth, National Soybean Processors Association, on Regulatory Activities Affecting the Soybean Industry. □



Solvent extraction pilot plant at Texas A&M

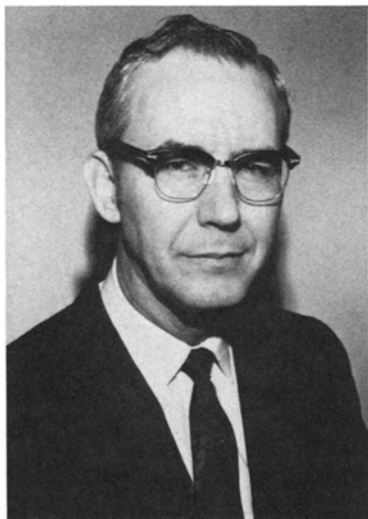
Cater-Mattil Hall dedicated at Texas A&M

The new Food Protein Research and Development Center was formally dedicated and named Cater-Mattil Hall during April with a two-day program on "The Oilseed Industry—Past, Present and Future."

The center is named for Carl M. Cater and Karl F. Mattil, two veteran

AOCS members on the staff at the center who died within a year of each other in 1976-77. Dr. Cater was head of the Oilseed Products Division in the center and an associate professor of biochemistry, biophysics and soil and crop sciences at Texas A&M University, where the center is located. He died in a plane crash Nov. 19, 1976. Dr. Mattil worked for approximately 25 years at Swift & Co. before leaving there in 1968 to become director of the then newly organized Food Protein Research and Development Center. He died after a brief illness on Oct. 4, 1977.

The 28,000-square-foot building includes labs for extrusion, aqueous processing, texturization, biochemistry, bacteriology, physical chemistry, amino acid analysis, analytical chemistry, food applications and engineering, as well as supportive services and administrative offices. A companion facility, a research oil mill, is located off the main Texas A&M campus at what used to be Bryan Air Force Base. This pilot plant facility includes equipment for seed cleaning, dehulling, conditioning, flaking and screw pressing. A separate building housing a solvent



Cater



Mattil

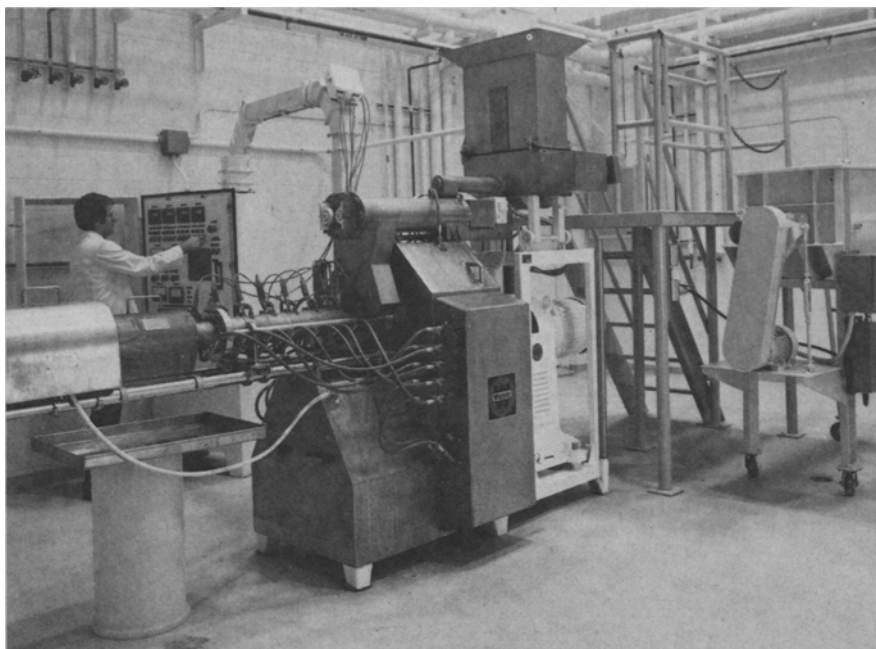
extraction unit includes a continuous solvent extractor, solvent recovery system, batch extractor equipment, and a simulated basket extractor.

Dr. Ed Lusas, director of the center, noted that more than \$600,000 worth of equipment has been donated to the units.

"The objective of the center's basic research program is to understand how the various components exist in the seed in order to optimize recovery during extraction and modification for use. Almost every oilseed protein has four or more major fractions (each with different nutritional and functional characteristics) whose solubilization can be selectively controlled," Lusas said in a pamphlet distributed during the meeting.

The center is part of the engineering experiment station unit at Texas A&M with a long-term goal of improving and expanding use of fibers and oilseeds produced there through development of new uses, more efficient processes for such products and also work to help industry solve problems. It has worked closely with the oil mill superintendents' organizations to provide short courses for training personnel.

The formal dedication ceremonies came during a dinner on April 14 with Betty Cater and Charlotte Mattil attending, as well as other members of the two men's families. Keynote speaker was Charles Scruggs, editor of *Progressive Farmer*, published in Birmingham, Alabama. □



Food extrusion pilot plant in Cater-Mattil Hall

Contributors recognized

The following firms received awards for their contributions to the Food Protein Research & Development Center: Anderson, Clayton and Company; Anderson International Corp.; AZO Inc.; Brandon & Clark Electric Co. Inc.; Brazos Valley Industries; Buhler-Miag Co.; California Pellet Mill Co.; W.C. Cantrell Co.; Crown Iron Works Co.; Ferrell-Ross Inc.; French Oil Mill Machinery Co.; Grand L. Kuhn & Co.; IMPCO (Industrial Metal Products Co.); Kice Metal Products Co.; Murray-Carver Inc.; Southwestern Supply and Machine Works; Wenger Manufacturing Co.



Cater-Mattil Hall at Texas A&M University

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trial Ingenieros SA as official sales representative in Mexico. Dessarrollo, engineers in the vegetable oilseed processing industry, will promote specifically the Simon-Rosedowns range of screw press/cooker units. □

Canola Council convention

The Canola Council of Canada held its 14th annual convention at the Bayshore Inn, Vancouver, British Columbia, Canada, from March 23-25, 1981. Almost 450 people attended and heard the latest research reports in the areas of new canola varieties, which scientists are breeding for higher linoleic acid content and lower linolenic, higher yields and greater disease resistance. Winter canola varieties are expected within the next few years.

Papers also were presented on the quality of canola meal as a feed protein and the nutritional properties of canola oil (a session which was well attended by local dieticians and food scientists). Registrants were told of canola's popularity in the Canadian marketplace, where it now accounts for almost one-half of the total edible oil consumption, and of the excellent prospects for the Japanese market. In Europe, however, Canada faces strong competition from France and Sweden, which are now growing low-erucic rapeseed. "Canola" is the Canadian rapeseed industry's new term for improved rapeseed, essentially free from erucic acid and glucosinolates. A more extensive report on canola will be published in *JAACS* later this year. □

Durkee encapsulation unit opens

Durkee Industrial Foods Group of SCM Corporation has opened a multi-million dollar facility in Louisville, Kentucky, for custom encapsulation and agglomeration of food and pharmaceutical ingredients.

The semicontinuous process encapsulates with either water-soluble or lipid coatings. □

Simon-Rosedowns deodorizers

Simon-Rosedowns Ltd. has announced a new contract to supply two semicontinuous deodorizer units for the Purfleet, Essex, factory of Van Den Verghs and Jurgens Ltd., a member of the Unilever Group.

Each six-tray deodorizer can process 8.5 tons per hour of oil for normal deodorizing, or 6.8 tons an hour with fatty acid stripping. The contract also calls for heat-recovery modification for an existing deodorizer at Purfleet. Van Den Verghs and Jurgens produce margarines under the brand names Stork, Blue Bank, Flora and Krona.

Simon-Rosedowns also has appointed Desarrollo Indus-

Kirchfeld to build in Korea, Saudi Arabia

The Kirchfeld firm of Dusseldorf, West Germany, has announced receipt of contracts for several new installations.

Production plants for animal and vegetable fats and oils are to be built in South Korea and Saudi Arabia, each with a capacity of 150 tons per day. The facilities will use noncaustic refining.

Kirchfeld's Deodoest system for continuous deodorization and deacidification is to be installed in plants in Austria (50 MT day), the Netherlands (300 MT day), Italy (250 MT day) and Germany (100 MT day).

A West German oil refinery also is scheduled to begin production soon from a newly developed computerized dry fractionation plant from Kirchfeld. □

Contract announced

Process Engenharia, Brazilian consulting firm in vegetable oils, has received a contract from the cooperative Canorpa (Cooperative Agropecuaria de Centro Norte do Parana) to help design and install a facility to process corn, including byproducts for human consumption.

The firm, based in Ponta Grossa in Parana, has completed five previous vegetable oil projects and provides consulting service to 20 firms located in Brazil and other nations. □