
Industry News

Report on American Chemical Society summer meeting

ACS topic: soy protein

Soy protein, if fed at sufficient levels to meet normal protein needs, provides adequate amino acids of all types for the human diet, Constance Kies of the University of Nebraska told a press conference during the American Chemical Society meeting in New York this past summer.

Dr. Kies specifically says that while methionine is the limiting amino acid in soy protein, there is no need for fortification if enough soy protein is consumed at normal protein levels.

The ACS program included two sessions on textured and extruded proteins, with papers scheduled from the U.S., England, Switzerland, East Germany, France and the Soviet Union. Dr. Kies' paper was the only paper on nutritional value of vegetable proteins, with most of the others focusing on various ways to modify texture or on production of different types of vegetable protein.

Besides soy protein papers, there was a paper from France on preparing a colorless sunflower protein and one from the USDA Southern Regional Research Center on cottonseed protein.

Dr. Kies noted that the ultimate test of vegetable proteins' acceptance will be in the marketplace.

U.S. Department of Commerce figures indicate the export market for U.S. vegetable proteins has grown to 30,817 metric tons in 1980 from 5,960 tons in 1974. The 1980 figure is below the 39,151 tons exported during 1978 and the 42,517 tons during 1979. About one-third of U.S. exports in 1980 went to Common Market nations, according to the trade figures, with Belgium-Luxembourg importing 6,509 tons.

ACS papers focus on cholesterol-related disease

As usual, there were numerous papers dealing with cholesterol and heart disease at the ACS meeting.

S.R. Srinivasan reported on work in the Departments of Medicine and Biochemistry at Louisiana State University on the effect of sugar (dietary sucrose) on cardiovascular disease risk among monkeys. High levels of sucrose, even with low levels of saturated fat, consistently produced an increase in serum total cholesterol, the paper said, "emphasizing the role of endogenous cholesterol synthesis related to sucrose. However, the observation that exogenous cholesterol at high levels produced a remarkable serum total cholesterol response, irrespective of the nature of dietary carbohydrates and fat, suggested an independent threshold effect on cholesterol."

In a paper on "Influence of Dietary Carbohydrates on Lipids and Atherosclerosis in Primates," David Kritchevsky

of The Wistar Institute noted that baboons fed diets with carbohydrate as lactose, fructose or sucrose plus 0.1% cholesterol developed atherosclerotic lesions, the first time such a result has been observed in baboons. Two other groups of baboons were on diets with carbohydrate as sucrose or starch, plus the cholesterol. Cholesterol levels in all five groups were approximately similar, Kritchevsky said, "suggesting an effect of some factor other than serum lipids."

In a report of "Effect of Dietary Fiber on Sucrose-Induced Lipemia in Humans," Margaret J. Albrink of West Virginia University said diets with high levels of sucrose increase triglyceride levels but a high fiber diet partially protected against the effect. Cholesterol levels after 11 days were unaffected by high or low fiber dietary content when fed with a high sucrose content, but were reduced below the starting level for medium or no sucrose diets with high or low fiber content. The subjects were tested for triglyceride and cholesterol levels at the first, fourth, seventh and 11th day of the test period.

P.J. Palumbo from Mayo Clinic said his work showed "the effect of carbohydrate feeding on metabolic rate suggested an increased conversion of carbohydrate to fat and an increase in carbohydrate utilization. These findings support the hypothesis that the hypertriglyceridemia associated with carbohydrate feeding is due to the conversion of carbohydrate to fat associated with decreased fat utilization." Palumbo's paper was entitled "The Effects of Simple Carbohydrate Intake on Plasma Glucose, Carbohydrate Tolerance, Serum Lipids, and Metabolic Rate in Patients with Angiographically Proven Coronary Heart Disease." □

Chemists' shortage forecast

In a "Projection of Supply and Demand for Chemists until 1990," G.G. Meisels of the University of Nebraska forecast a shortage of doctorate and master's degree chemists, and a possible shortage of bachelor's degree chemists by 1990.

Meisels told the American Chemical Society meeting in New York this summer that while there was a small oversupply of B.S. chemists in 1978, by 1988, using his high demand projection, there will be a shortage. For M.S. chemists, supply and demand are about balanced through 1980, but by 1990, demand will exceed supply. For doctoral graduates, demand may exceed supply by 50% to 66%, he said.

In a table showing projected cumulative supply and

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demand for chemists in 1990 by degree, Meisels showed supply (figured at a high level) of B.S. chemists would be 75,783 by 1990, with 63,478 needed if his low demand projection is correct and 100,159, if the high demand is correct. There will be about 12,604 M.S. chemists available, with low and high demand projections being 17,763 and 28,131, respectively. There will be about 17,162 Ph.D. chemists available, with low and high demand projections of 26,142 and 37,474, respectively. □

Coan heads NSDA

Gaylord O. Coan, group vice-president for agricommodities at Gold Kist Inc. has been elected chairman of the National Soybean Processors' Association during its annual meeting this past fall.

Edward J. Cordes, vice-president and director of commodities and soybean division for Ralston-Purina, was elected vice-chairman. Other new officers include Donald L. Leavenworth, Cargill, secretary, and Lowell K. Rasmussen, Honeymead Products, treasurer; Sheldon J. Hauck continues as president.

Executive committee members will be John G. Reed, Jr., Continental Grain; Charles Bayless, Archer Daniels Midland; Richard Rypkema, Agri-Industries; David C. Thompson, Bunge Corporation; Kermit F. Head, Missouri Farmers Alliance; Sewell L. Spedden, Perdue Inc.; and C. Lockwood Marine, Central Soya, who is the NSPA's immediate past-chairman.

NSPA's 1982 meeting will be Aug. 15-18, 1982, at Pebble Beach, CA. □

Staley plant completed

A.E. Staley Mfg. Co. has completed a vegetable oil refinery in Des Moines, Iowa, for production of soybean salad oils and hydrogenated soybean oils. The plant is one of the largest soy oil plants constructed recently in the U.S. Dedication ceremonies were being planned for sometime in October, after the deadline for this issue of *JAOCS*. □

Color control courses

Starting this month, Applied Color Systems Inc. will offer one-day seminars and three-day courses and workshops on color control for paint and coatings manufacturers.

Designed for general management personnel, the one-day seminars cover basic color theory, practical applications of color control, paint and coatings, and the economics of color control, including effects on plant and equipment productivity, work-flow improvement and reduction of raw materials usage.

The three-day color courses, organized for technical personnel, will stress laboratory workshops and demonstrations of automated color control equipment.

For more information, contact Applied Color Systems Inc., PO Box 5800, Princeton, NJ 08540. □

Coatings courses offered

Any coatings firm that wants to train at least 10 of its employees can arrange with the University of Missouri-Rolla to have any of eight coatings short courses taught at the firm's own facility. Courses range from Introduction to

\$2 from AOCS

AOCS needs copies of the January 1980 issue of *Journal of the American Oil Chemists' Society (JAOCS)* and copies of *LIPIDS*, January and February 1977 and January 1981.

The society will pay \$2.00 for each copy received in reusable condition. Send copies to AOCS, 508 South Sixth Street, Champaign, IL 61820.

Composition of Coatings through Industrial Market Research for the Chemical Industry. For more information, contact Norma Fleming, Arts & Sciences Continuing Education, University of Missouri-Rolla, MO 65401. □

Grain Pact

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sought. Then domestic prices would go up. Producers wished they had planted more. Consumers became unhappy that the cost of living was advancing due to large purchases by a Communist country.

Thus, it can be seen that the political element in Washington has seized the opportunity to try to be a benevolent provider of good things to both segments of society. By having an agreement, they could hope to make both producers and nonproducers happy. For producers, the price of grain could be higher but not too high. Nonproducers might have to pay a little more, but not too much.

With this attitude dominant, regardless of which political party is in power, it can be expected that a new agreement will be reached if at all possible. But there are limitations in the concessions which Washington will make under current conditions, and as already explained, there is reason to doubt that the "no embargo" demand of Moscow will be conceded. At present, it would seem that negotiations will require a long, long time and no agreement will be reached at all.