

Diversification: New crops, uses

Diversification of agriculture and forestry must become a national priority, according to a task force report this summer to the Secretary of the U.S. Department of Agriculture.

"New Farm and Forest Products: Responses to the Challenges and Opportunities Facing American Agriculture," was prepared by The New Farm and Forest Products Task Force chaired by Ronald L. Sampson of Procter & Gamble Co. A collaborative effort between industry, academia and government, the task force was formed in mid-1985 from a U.S. Department of Agriculture (USDA) Challenge Forum. Prompting its formation was concern that the U.S. has over-concentrated on agricultural production of a relatively few major food and feed crops—crops for which worldwide production is increasing and global import markets are shrinking.

The task force recommended diversification through new crops and new uses for existing crops. "Significant opportunities exist for new farm and forest products to meet real market needs, particularly in industrial, non-food application areas," the task force reported.

In its studies, the task force focused on identifying uses that would not significantly compete with, or displace, current U.S. farm or forest products. "Such opportunities are of particular interest because they represent potential new market demand for domestic production," the task force noted.

Among the examples cited for industrial market opportunities were industrial oils from the Chinese tallow tree, crambe, cuphea, jojoba, meadowfoam, rapeseed and soybean, for use in lubricants, cosmetics, soaps and detergents, plastics and coatings.

The group proposed that a national goal be adopted to develop and commercialize within 25 years an array of new farm and forest products using at least 150 million acres of productive capacity. "Such

a goal represents the equivalent development of two to three new soybean crops, in about one-half the time the soybean required to rise to its current level of significance," the task force said, estimating that achievement of the goal would generate about 750,000 new jobs, increase farm income by approximately \$30 billion per year and annually contribute about \$100 billion in activity to the U.S. economy.

Recommending that an independent Foundation for New Farm and Forest Products be established to achieve this goal, the task force suggested that the foundation be funded initially by proceeds from a \$1 billion trust fund invested solely in U.S. Treasury securities. It proposed that the fund be created by the sale of \$200 million of various commodities held by the Commodity Credit Corp. each year for a five-year period. Other industrial raw materials recommended were: pulp and fiber products from trees and kenaf for newsprint, paper and composite structural materials; rubber, resins and waxes from guayule for use in tires, tackifiers and coatings; alcohol from corn, other starchy crops and biomass for use as fuel additives; absorbents and other chemicals from corn and other starchy crops; and carbon char and chemicals from the pyrolysis of hardwoods and woody biomass to make high-grade metallurgical products and an array of organic chemicals.

The task force also said there are opportunities to develop high-value specialty products: high-value biologically active products from both land- and marine-based plant cultivation for use in pharmaceuticals, insecticides, herbicides and disease control agents for both plants and animals; ornamental horticultural products, and relatively high-value specialty food products from both new horticultural crops and aquaculture.

Noting that such programs as a cuphea research project at Oregon

State University represent exploratory efforts to develop a new crop source for certain industrial oils, the task force added that existing programs are relatively small in scope. "Consequently, although encouraging, they represent only modest, and quite insufficient, steps toward diversification of agriculture on the scale required."

Copies of the task force report are available from CSRS/OGPS, Room 635, Hamilton Building, 14th & Independence, S.W., Washington, D.C. 20250-2200, telephone 202-535-0962.

Acreage, exports

U.S. farmers planted 58.69 million acres to soybeans during 1987, 1.8 million acres more than predicted earlier in the year but down 3 million acres from 1986, according to the U.S. Department of Agriculture (USDA).

Peanut plantings, meanwhile, were set at 1.53 million acres, down from 1.61 million acres predicted in March and 1.57 million acres actually planted in 1986. In addition, 1.73 million acres of all sunflowerseed varieties were planted in the four primary growing states, compared to 1.67 million acres predicted in March and 2.0 million acres actually planted in 1986. Sunflowerseed oil varieties were planted on 1.5 million acres, versus 1.78 million acres last year. Cottonseed plantings, meanwhile, totalled 10.45 million acres, versus 10.06 million in 1986.

According to USDA, strong export performance and robust economic growth in Hong Kong, Korea and Taiwan point to increased demand for imported farm products, including soybeans. U.S. soybean meal shipments during the first half of 1987 were higher than last year, due to strong global demand for meal at a time when U.S. competitors had low supplies.

U.S. domestic oil use is forecast to rise 4%, to 11 billion pounds,

while a 10% rise in poultry production and 2% increase in pork production during 1987 could raise domestic soybean use by 3%, to 21.05 million short tons.

The European Economic Community (EEC) took 48% of U.S. soybean exports through mid-May, 1987, while Japan purchased 19%. Total 1986/87 U.S. soybean exports are projected to decline by 1.1 million tons, to 19.1 million. In 1987/88, they are forecast to fall 7%, reflecting greater anticipated competition from South America, larger EEC soybean production and reduced U.S. supplies.

Soybean oil exports are expected to decrease 12%, to 500,000 tons, in 1986/87. In the first five months of 1987, U.S. soybean oil exports were 37% behind last year's.

Also, USDA forecast the value of oilseed and oilseed product exports at \$5.8 billion, 10% below 1986 and the lowest since 1976. According to USDA, the drop reflects both reduced prices and lower volume. In 1986 and 1987, reduced Southern Hemisphere soybean crops boosted U.S. export volume. However, Brazil's 1987 soybean crop is expected to rebound to 17 million tons, well above last year's 14 million tons. Larger U.S. soybean meal exports only partly offset the lower U.S. soybean export forecast.

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EEC tax on hold

The European Economic Community (EEC) has postponed action on its controversial proposed tax on vegetable and marine oils and fats until at least December.

In meetings of the EEC Council this summer, Belgium proposed that the oils tax and reform of the EEC agri-monetary system be put off until the EEC's December council summit in Copenhagen. Belgian leaders said the tax should be studied further and consultations on it held with trading partners. EEC farm ministers decided to postpone negotiations over the controversial tax in order to break a deadlock in talks on EEC farm prices for the current year.

The proposal, which would have taxed all vegetable and marine oils processed in the EEC, was opposed by the United Kingdom, West Germany, Portugal and Denmark within the EEC as well as such trading partners as the U.S., Malaysia and Indonesia. The EC Commission had proposed the tax to help finance subsidies to European farmers who grow oilseed crops.

The Commission insisted that the tax proposal had not been dropped, but would resurface at the council meeting in December.

Malaysians lobby

Lim Keng Yaik, Malaysia's minister of primary industries, was in Washington, D.C., late in June to lobby against a proposed bill to require foods containing palm, palm kernel or coconut oil to be labeled as containing a saturated fat.

Noting the bulk of Malaysian palm oil is grown by small-scale farmers who depend on its sale for a livelihood, the Malaysian minister said such protectionist legislation would have a "devastating effect" on them.

Malaysian officials fear that the legislation, if passed, might reduce palm oil usage in the U.S. The Malaysian minister noted that there may be nutritional benefits from palm oil not available from other oils. "Far from being an unhealthy oil, some research studies have shown that palm oil may actually have beneficial health qualities and tend to reduce blood cholesterol levels," he said, noting that it contains vitamin E, especially the tocotrienols, and is also an important source of carotene, a precursor of vitamin A.

He urged that any legislation should await the results of further research.

Crushers' group

Portugal's three soybean crushers have formed their own trade association. The new association plans to become a member of the European Economic Community Seed Crushers' and Oil Processors' Federation, FEDIOL.

According to U.S. Department of Agriculture observers in Portugal, soybean crushers withdrew from AIMOV, Portugal's association for oilseed

crushers and margarine manufacturers, because they felt their interests were not adequately represented by AIMOV, dominated by sunflowerseed interests. Soybean crushers, who felt AIMOV favored higher sunflowerseed oil government oil quotas at the expense of soybean oil, hope their new group can successfully lobby for a higher quota for soybean oil. This, USDA said, could result in larger imports of soybeans.

Kaiser selling

Kaiser Aluminum & Chemical Corp. in July announced it was seeking proposals for selling all or part of its industrial and specialty chemicals business.

The Cleveland-based chemicals division produces industrial and specialty chemicals and a wide variety of other products for U.S. and international manufacturing industries. Its product lines include catalysts, colors, specialty chemicals, crystals and electronics products, commodity chemicals and cathodic protection products.

Meanwhile, KaiserTech Ltd. said it would purchase Chevron Corp.'s half interest in the Harshaw/Filtrol Partnership on Aug. 1, 1987. Terms of the purchase were not disclosed. Harshaw/Filtrol, a specialty chemicals and high-technology company headquartered in

Cleveland, Ohio, is managed by Kaiser Chemicals, a division of KaiserTech's Kaiser Aluminum & Chemical Corp. subsidiary.

Acquisition

Witco Corp. has acquired U.S. Emulsifier Inc. of Memphis, Tennessee, a wholly owned subsidiary of Valley Forge Corp., for approximately \$5.3 million.

U.S. Emulsifiers is a manufacturer of food-grade emulsifiers used in bakery, edible oil and margarine, convenience food and chemical and plastics markets. It is located on property contiguous to Witco's Humko Chemical Division's Memphis operations.

The plant will operate under Witco's Humko Chemical Division, producer of fatty acids, glycerine, amines, amides, esters and other oleochemical derivatives.

Kraft actions

Frederick F. Avery has been named president of the Kraft Industrial Foods Group, which now includes several operations of the Anderson Clayton Foods Division purchased from The Quaker Oats Co. June 28, 1987. The operation will continue to be headquartered in Memphis, Tennessee, resulting in the eventual closing of the Anderson Clayton facilities in Dallas and Richardson, Texas.

Avery, who has been president and chief executive officer of Anderson Clayton Foods Division since 1982, is responsible for the combined edible oil and industrial ingredients businesses.

Carlton D. Steen, president of Kraft's Industrial Foods group since 1982, will serve the company in a consulting role for the next two years.

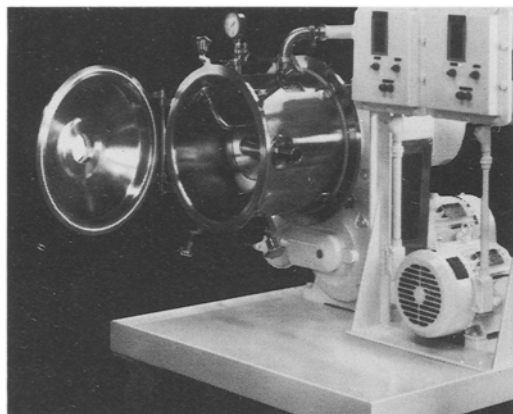
Avery joined Anderson Clayton Foods in 1980 as executive vice president and chief operating officer. Before the foods division was acquired by Quaker, he was a director of Anderson, Clayton & Co. He is a director of the National Association of Margarine Manufacturers, a director and area vice president of the Association of Dressings and Sauces, and a member of the Institute of Shortening and Edible Oils.

Oxygen radicals

More than 400 scientists and researchers attended the Fourth International Congress on Oxygen Radicals held in La Jolla, California, in July. Included were talks on the importance of vitamins E and C in the diet, as well as papers advocating increased consumption of fish and decreased consumption of vegetable oils in the American diet.

Also discussed were subtle biochemical mechanisms that may lead to prevention and therapies to combat atherosclerosis, cancer, arthritis, various eye diseases and other diseases, and the general effects of aging.

Speakers pointed out that vitamins E and C increasingly are seen as important in protecting cells



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from the harmful effects of oxygen radicals. In addition, William Lands of the University of Illinois, Chicago, pointed out the importance of regulating the kinds of fats in the diet. Lands talked about research focussing on diminishing the use of n-6-type oils and increasing the intake of n-3-type oils found in green, leafy vegetables and seafoods.

Participants agreed to form a new society, tentatively called "The Oxygen Society," to encourage interdisciplinary research and discussion in the area of oxygen biochemistry. This, they said, could complement the existing Society for Free Radical Research founded in Europe.

Sponsors of the international meeting included the National Bureau of Standards, National Heart, Lung and Blood Institute, International Life Sciences Institute, National Cancer Institute, American Industrial Health Council and the Institute for Research on Aging.

Japan update

The rapid appreciation in the value of the Japanese yen and lower world oilseed prices led to an average selling price for vegetable oils and fats of 169,000 yen per ton in 1986, about 65.1% of the average selling

price in 1985, according to the Japan Oil and Fat Processors Association. The average price of meal, 41,000 yen per ton, was about 88.8% of the 1985 average.

About 270 persons attended a Japan Oil Chemists' Society meeting on biochemistry in Tokyo earlier this year, which highlighted metabolic and nutritional aspects of polyunsaturated fatty acid. The four primary lectures were Essential Fatty Acids Balance and Disease, by Harumi Okuyama of Nagoya City University; Gamma-Linolenic Acid from Evening Primrose Oil in Clinical Medicine, by D.F. Horrobin of Efamol Ltd., Canada; Antithrombotic and Antiinflammatory Effect of Fish Oil Polyunsaturated Fatty Acids, by Yasushi Tamura of Chiba University, and Oils and Fats Nutrition, by Michihiro Sugano of Kyushu University.

New facility

Vamo Mills NV of Belgium has announced it will build an oilseed crushing plant, with 400,000 metric tons (MT) per year capacity, at Sète, southern France.

The plant, expected to cost 240 million French francs, is scheduled for completion by September 1988. It will process mainly French sunflowerseed, according to company officials.

Vamo Mills, owned by the Belgian companies Vandermootete International and Vandermootete Co-ordination Centre, currently crushes 1.7 million MT of oilseeds a year in various facilities in France and Belgium.

Saudi Arabia

While oilseeds are not yet commercially produced in Saudi Arabia, there is interest in growing soybeans and sunflowers; one Saudi-U.S. company is even studying the possibility of starting a crushing facility, according to U.S. Department of Agriculture (USDA) observers.


A Saudi company, conducting a soybean trial planting, found that the value of the crop was only one-third that of wheat per hectare of land, USDA reported. However, two agricultural development companies—Hail Agricultural Development Co. and Eastern Agricultural Development Co.—are interested in planting soybeans and sunflowers on an experimental basis.

USDA noted that oilseed production will depend on wheat profitability. Currently, the subsidy on wheat production makes it more profitable than growing oilseeds.

Symposium report

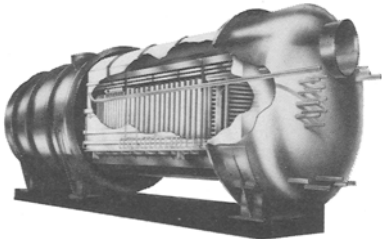
More than 450 registrants attended a symposium on Diet, Nutrition and Health held May 27-30, 1987, at

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the University of Western Ontario in London, Ontario, Canada. Participants included dietitians, nutritionists, public health personnel, students, and representatives from industry, government and the medical profession.

The aim was to consider how diet can contribute to good health and reduce the risk of various chronic diseases. Consideration also was given to dietary guidelines and their effects on agriculture, the food industry and various segments of society. Sponsors were the Royal Society of Canada and the Food and Nutrition Board of the U.S. National Research Council.

In the opening session, Philip James of Aberdeen, Scotland, presented a keynote address on the formulation of dietary guidelines in Great Britain and other European countries. Sessions during the second day focused on diet's relationship to cardiovascular

disease and to other related chronic diseases, such as hypertension, diabetes, obesity and kidney disease. Featured speaker at the evening banquet was John Cairns of Boston, who spoke on "The History of Mortality."

In sessions the following morning, the theme was "Diet and Health Maintenance." Discussed were the role of diet in maintenance throughout life, the nutritional problems of the elderly, an overview of nutrition in relation to alcohol usage and diet in relation to osteoporosis. During the afternoon session, various aspects of the role of diet in cancer were described.

The final day centered on dietary guidelines. Discussed were the development and use of dietary guidelines and implications of dietary guidelines for agriculture. A panel discussion on the implementation of dietary guidelines provided views for the food industry, dietitians and public health nutritionists, nutrition educators, the medical profession and governmental agencies.

The proceedings of the symposium will be published by the McGill-Queens University Press as a volume in the Royal Society of Canada's symposium series.

Canola research

The Canadian Canola Council's Research and Technical Committee has set six new priorities for research funding for 1988. Of these, chlorophyll reduction in canola has been identified as top priority.

Other priority research areas are:

- use of canola oil as a grain dust suppressant
- development of on-line analytical techniques
- animal feeding studies with meal from protein, amino acids and energy as affected by the age of the animal
- examination of the availability and utilization of canola meal, protein, amino acids and energy as affected by the age of the animal

- examination of the available energy and synergistic effects in blends of canola oil, tallow and acidulated fatty acids in animal rations.

According to the Council's Canola Digest newsletter, Weyburn Inland Terminal in Canada has installed a commercial-scale oil dust suppressant system and has tested mineral, soybean and canola oils as dust suppressants. The company has reported excellent results in the oil trials and has offered its facility to anyone in the industry interested in running commercial-scale trials with canola oil.

While the Canadian malting and brewing industry has categorically opposed the use of any vegetable oil as a dust suppressant in barley, Labor Canada has indicated interest in canola's oil because of its effectiveness. Also, the Canola Council reported, the Canada Ports Corp. is interested in using canola oil as a way of reducing costs of dust control in elevators at port facilities.

Coconut update

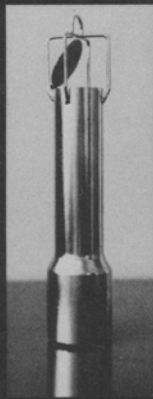
The Philippine Coconut Authority (PCA) has signed an agreement with Cocotech Inc., a local firm, for Cocotech to set up an integrated coconut processing plant in the Philippines, according to *The Cocomunity* newsletter.

The plant will be located in the PCA's Alaminos Experimental Station. While aflatoxin-free dehydrated edible coconut meat and metallurgical-grade charcoal are the initial products planned, the facility also will produce coconut oil.

Also in the Philippines, the Philippine Cocoa Estates Ltd. has announced plans to intercrop approximately 2,000 hectares of existing coconut plantation with cocoa. The project is being funded through a grant from the International Finance Corp.

Meanwhile, Sri Lanka has completed its coconut development project financed by the Asian Development Bank and the International Fund for Agricultural Development. The project, which

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began in June 1982, was designed to (a) increase coconut production on 160,000 hectares of small holdings, (b) upgrade infrastructural facilities on coconut research, extension and marketing, and (c) modernize the country's coconut processing industries. The total cost was US \$30.4 million. According to *The Cocomunity* newsletter, the goal for modernization of the processing sector was not accomplished.

In India, the Tamil Nadu state government has announced it will establish a 100-hectare hybrid coconut seed garden and 12 pilot testing centers. The object is to produce the best hybrid combinations suitable for different agro-climatic conditions.

In other research work, studies in the Philippines have shown copra meal fortified with amino acid can replace corn-soybean blends and similar imported protein source feed-meals for swine feed. According to a report in *The Cocomunity* newsletter, a shift to fortified copra meal for swine feed could reduce imported feedstuffs.

Calgene project

Calgene Inc. has entered into a licensing agreement with the Japanese chemical company Toagosei Chemical Industry Co. Ltd. to develop insect resistant corn and cotton plants.

Under the agreement, Calgene has the rights to use genes from *Bacillus thuringensis* isolated by Toagosei to genetically engineer the plants. The bacteria is used in bio-pesticides. Calgene said the agreement will allow development of plants resistant to several cotton pests, including tobacco budworm and cotton bollworm.

News briefs

Continental Grain Co. has named four managers in its newly formed World Oilseeds Group. Appointments include: **Carl Hausmann**, vice president of finance and ad-

ministration; **Dan Decker**, vice president of operations; **Roger Bohnen**, vice president of human resources, and **Joseph Lasiewski**, controller. Other appointments in the World Oilseeds Group include: **Harry Ambrose**, senior vice president and oilseeds merchandising manager; **Ronald Anderson**, senior vice president and general manager for world oilseeds processing, and **Martin Graf**, vice president for world oilseeds economic analysis. In its World Grain Group, **Continental Grain** made the following assignments: **Myron R. Laserson**, executive vice president for marketing and trade policy; **John Laesch**, senior vice president and merchandising manager; **Filippo Galli**, president of the European Division, and **Vart Adjemian**, general manager for Europe. Meanwhile, **Rico Stroemer** has been elected senior vice president and appointed general manager of the **ContiMilling Division**.

J. John Pease has been named vice president of marketing for **Capital City Products Co.** As such, he is responsible for marketing, planning and development for all edible oils and chemical specialties. In addition, **Kenneth Player** has been promoted to national sales manager for confectionery and specialty fats sales, while **Phillip A. Gullatta** has been named sales manager for grocery products.

Robert E. Klein has joined **A.E. Staley Manufacturing Co.**'s **Horizon chemical division** as senior development manager.

International Oil Mill Superintendents Association has elected the following officers for 1987/88: president, **Sam Ward**, Valley Co-op Oil Mill, Harlingen, Texas; first vice president, **Ronnie Luttmann**, Planters Cotton Oil, Pine Bluff, Arkansas, and second vice president, **Frank Borba**, Western Cotton Services, Chowchilla, California.

Cargill Inc. has purchased **Producers Cotton Oil** in Fresno, California.

Prater Industries Inc. of Chicago has acquired **Sterling Controls Inc.**

of Sterling, Illinois, maker of computerized control and weighing systems for batching, bagging, blending and sizing.

AOCS member **James Clouse** has been named mill manager of the **Ranchers Cotton Oil** facility in Fresno, California. He formerly held the same position at the company's Bakersfield plant before it was closed and sold.

Thermo Jarrell Ash was slated to move to its new facility in an industrial park in Franklin, Massachusetts, Sept. 1, 1987. The company's new address is Thermo Jarrell Ash, 8E Forge Park, Franklin, MA 02038, USA, telephone 617-520-1880.

Edward E. Kaminski has been named vice president of quality assurance and regulatory compliance for **Kraft Inc.**'s operations and technology group.

AOCS member **H.P. Gupta** has been elected president of the **Solvent Extractors Association of India**.

McVay Jojoba Co. of Avila Beach, California has been renamed **Purcell Jojoba Co.**

Bunge Corp. and **Carlin Foods Corp.** have announced that Bunge will purchase Carlin. Carlin, which markets a variety of food ingredients for the bakery, dairy and food service industries, operates seven manufacturing and distribution facilities throughout the U.S.

A new palm oil facility owned by **PT Argha Giri** has gone on-line in Maluku, Indonesia. Constructed at a cost of US \$482,500, the new facility has the capacity to produce approximately 36,000 metric tons (MT) of palm oil, or 1,800 MT of cooking oil, per year, according to *The Cocomunity* newsletter.

Quest International is the new name for the merged fragrance and flavors producers **PPF International** in the United Kingdom and **Naarden** in The Netherlands. Quest is owned by **Unilever**.