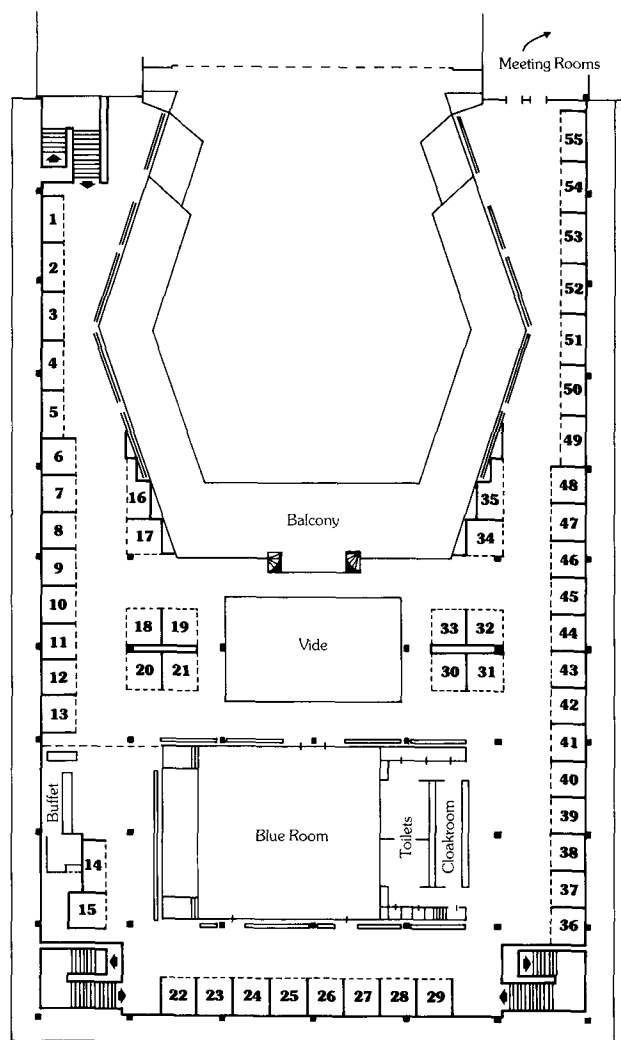


Exhibit Area & Exhibitors



Alfa-Laval (Booth 34) is an international engineering firm engaged in the development, manufacture, and marketing of equipment and continuous process systems. Approximately 30% of the firm's annual business is with the food and beverage industry. Among vegetable protein processing systems currently available, those for wheat gluten and soy protein are attracting most current interest. Mailing address: Alfa-Laval AB, Dept. SFI, Postfach, S-147 00 Tumba, Sweden.

Alpine AG (Booth 11). Mailing address: Alpine AG, P.O. Box 10 11 09, 8900 Augsburg 1 Bayern/BRD, West Germany.

The American Soybean Association (Booth 14) is a non-profit organization devoted to market development, research, and legislative interests of the U.S. soybean producers. ASA members are therefore soybean producers and related interested industrial firms. ASA consolidates the efforts of producers, marketing agents, and processors to promote and to expand the use of soybeans through a worldwide network of nine offices. ASA has a formal agreement with the U.S. Department of Agriculture's Foreign Agricultural Service to increase markets for agricultural products. At its booth, the ASA will display and distribute technical and promotion material supporting its theme that

soybeans are the most readily available, economical, best nutritionally balanced, and best complete natural source of protein for the world. Mailing address: American Soybean Association, Centre International Rogier, Rooms 2501/06, Boite 151, 1000 Brussels, Belgium.

Archer Daniels Midland Co. (Booths 12 and 13) will display products from the wide range of its TVP and Nutrisoy proteins as well as new applications in meat, fish, poultry, bakery, and beverage use. Archer Daniels Midland is the world's largest producer of edible vegetable proteins. In the United States, ADM operates three soy flour plants, two textured protein plants, one soy protein concentrate plant, and two plants for the production of wheat gluten. In the United Kingdom, the British Arkady Company is the leading soy flour and textured protein producer. ADM Nederlands operates a soy flour and textured protein plant in Holland. Mailing address: Archer Daniels Midland Co., P.O. Box 1470, Decatur, IL 62525, USA.

Buhler Brothers Ltd. (Booth 7), active in the field of roller mill fabrication for 120 years, will be exhibiting their latest flaking roller mill. For the past two years, Buhler has specialized in planning and engineering for oil mills. Its full program includes machinery and equipment for ship unloading; seed storage; cleaning, drying; crushing, dehulling, conditioning; flaking of oilseeds; pellet mills for extraction meal; grinding, storage, moistening, and loading of extraction meal; all mechanical and pneumatic transport elements; and electrical control systems. Buhler maintains its own research and development center as well as a worldwide organization of sales and service representatives. Mailing address: Buhler Brothers Ltd., 9240 Uzwil, Switzerland.

Cargill, Inc. (Booths 28 and 29) will exhibit a line of high quality, edible soy protein products at the World Conference. The Cargill display will show the important role Cargill's vegetable protein plants in the United States and in Amsterdam have in the production of high quality, defatted soy flakes, soy grits, soy flour, and textured soy products developed especially for today's food industry. Products from these plants are distributed directly to markets throughout the world for use in bakery foods, engineered foods, meat products, and in pet foods. Technical information on the products will be provided by Cargill soy-protein specialists who will staff the display booth. Mailing address: Cargill, Inc., Fosfaatweg, Amsterdam, The Netherlands.

Central Soya Company, Inc. (Booths 9 and 10) is an international agribusiness and food processing company with headquarters in Fort Wayne, Indiana, USA. Central Soya markets the industry's broadest line of edible soy proteins and lecithins. The exhibit at the World Conference will feature the firm's wide variety of proteins designed to satisfy specific food system needs. Central Soya has been in the edible soy protein business for more than 30 years, and its products include flours, concentrates, isolates, and textured proteins. The largest manufacturer of soy lecithins, Central Soya produces more than 50 upgraded and refined lecithin products for edible industrial and pharmaceutical uses. Mailing address: Central Soya Company, Inc., 1300 Ft. Wayne Bank Bldg., Fort Wayne, IN 46802, USA.

Costruzioni Meccaniche Bernardini (Booth 39) will be exhibiting models of its plants, particularly those extraction plants specially designed to obtain high protein content meal and its continuing refining systems incorporating the continuous refining, bleaching, semi-continuous deodorizing and physical refining deodorizing stages. "The New Oils and Fats Technology," a book by Dr. E. Bernardini, general director of the firm, will be displayed as well as literature covering the whole range of the company's

manufacturing lines, including fatty acid distillation, glycerine recovery, and slaughterhouse by-products handling plants. Mailing address: Costruzioni Meccaniche Bernardini S.p.A., 2 Via della Petronella 00040 Pomezia (Rome), Italy.

Dawson Mills (Booth 53). Mailing address: Dawson Mills Corp., Dawson Mills, MN 56232, USA.

Food Protein Council (Main Level). Mailing address: Food Protein Council, 1800 M Street NW, Washington, DC 20036, USA.

N. Foss Electric (Booths 54 and 55) manufactures a wide range of specialty products for the determination and control of quality parameters in food and feedstuffs. Based in Denmark, the company employs more than 450 persons, about 20% of whom are in research and development. This effort in R&D has been maintained since the company's founding in 1956, forming the basis for a considerable growth rate during the past 15 years as well as for future years. On display will be the Kjeldahl Automatic instrument, the first and only fully automated true Kjeldahl analysis instrument [Official First Action, *JAOAC* 60(2):7 (1979) BO1-BO4] 12 minutes per analysis, as well as the Pro-Meter Instrument, applying dye-binding techniques to determine biologically active lysine in 40 minutes. Mailing address: A/S N. Foss Electric, 69 Slangerupgade, DK 3400 Hillerod, Denmark.

Gist-Brocades N.V. (Booths 43 and 44) has been involved in fermentation for more than a century, with an operation that now employs 6,500 persons in 40 locations all over the world. The production program comprises bakery yeast, alcohol, pharmaceuticals, enzymes, veterinary products, consumer products, and food flavors, including a complete range of primary grown yeast extracts and hydrolyzed plant proteins. At the World Conference, Gist-Brocades will exhibit and demonstrate Maxarome, a flavor-enhancing extract for the savoury food industry. Encouraging results with this most flavorful yeast extract specialty in the field of textured vegetable proteins are well on their way, the firm says. Mailing address: Gist-Brocades NV, P.O. Box 1, Delft, Holland.

Griffith Laboratories. Mailing address: Griffith Laboratories, 12200 S. Central Avenue, Alsip, IL 60658, USA.

Haarmann & Reimer (Booth 16). Mailing address: Haarmann & Reimer GmbH, Rumohrtaalstrasse 1, 3450 Holzminden 1, West Germany.

Hermann Bauermeister (Booth 49) will demonstrate machines and plants for oilseed preparation. Original machines, models, and flow sheets will show possibilities in oilseed processing and production of a high protein foodstuff. The exhibit will include a Bauermeister Turbo Mill, Prater Hammer Mill, and a Bauermeister Flaker. Also shown will be possibilities for classification by air of finely ground products. Associated with Bauermeister in the exhibit will be Prater Industries of Chicago and N. Hunt Moore & Associates of Memphis, Tennessee, USA. Mailing address: Hermann Bauermeister Maschinenfabrik GmbH, Friedensallee 44, 2000 Hamburg 50, West Germany.

C.S.M./Honig Merkartikelen (First Floor) will exhibit three varieties of Honig Spun Protein (a vegetable spun protein in frozen form), as well as a number of meat products in which Honig Spun Protein has been used. The firm is part of the food division of Centrale Suikermaatschappij. Honig's retail, catering, and industrial groups are market leaders in major food categories such as dehydrated soups,

pasta products, and cake mixes. The industrial group which now introduces Honig Spun Protein sells finished and semi-finished products for further processing by major food industries in Holland and abroad. Mailing address: C.S.M./Honig Merkartikelen B.V., Lagedijk 3, P.O. Box 45, Koog aan de Laan, Holland.

Kikkomon Foods. Mailing address: Kikkomon Foods, P.O. Box 69, Walworth, WI 53184, USA.

Lurgi Gesellschaften (Booth 27) will have a display of photographs of the construction of a 4,000-ton-per-day extraction plant built for a customer in The Netherlands. When built, the plant was the largest solvent extraction plant ever built. Mailing address: Lurgi Gesellschaften, Gervinusstrasse 17/19, 6000 Frankfurt am Main 2, West Germany.

Miles Laboratories Inc. (Booths 22 and 23) is the technological leader of vegetable protein analog manufacturing in the United States. Its Morningstar Farms meat analogs are nutritionally equivalent to their animal protein counterparts, are low in saturated fat, and contain no cholesterol. In addition to the Boyer spinning and Wenger extrusion texturizing processes, Miles has developed technology related to the incorporation of synthetic meat flavors into vegetable protein emulsion systems. Products in distribution include analogs of hamburgers, frankfurters, pork sausage links and patties, ham slices, bacon, poultry, and seafood. Product samples, educational literature, and nutritional data will be available at the exhibit. Mailing address: Miles Laboratories, 7123 W. 65th St., Chicago, IL 60638, USA.

The Natural Fibers & Food Protein Commission (Booth 5). Mailing address: The Natural Fibers & Food Protein Commission, 17360 Coit Road, Dallas, TX 75252, USA.

Newport Oxford (Booth 15) is a British company that has been producing broadline NMR equipment for quality control applications during the past 10 years. The instrument is now used in 37 nations. Displayed at the World Conference will be the latest model, the Newport Analyzer MKIIIA. Earlier versions of the analyzer were not able to distinguish the NMR signals from oil and moisture. The MKIIIA is provided with an extra control, "gatewidth." The signal from moisture is a function of gatewidth, so the use of this control allows the moisture to be measured separately from the oil. This is of particular importance to breeders and commercial extraction firms. The measurements and calculations can be controlled by a programmable calculator to give a printout of oil and moisture. The MKIIIA will be shown in operation with the Hewlett Packard 976 Programmable Calculator giving moisture and oil measurements on whole seeds within minutes of sampling. Mailing address: Newport Instruments Ltd., North Crawley Road, Newport Pagnell, Buckinghamshire, England.

Novo Industri A/S (Booths 20 and 21) is one of the world's largest producers of enzymes for industrial use. The firm's factories, research facilities, and sales/service offices are spread across the globe, underscoring the firm's commitments toward development and marketing of the most advanced enzyme products possible. The firm allocates 10% of its annual resources for R&D to maintain its leadership role in industrial enzymology. "None of this would have been possible without the support of hundreds of scientists, technicians, production specialists, and sales representatives who share a common belief in the enzymes' ability to contribute to the overall betterment of life," the firm says.

Mailing address: Novo Industri A/S, Enzymes Division, Novo Alle, 2880 Bagsvaerd, Denmark.

Ralston Purina (Booths 30, 31, 32 and 33). Mailing address: Ralston Purina Co., Checkerboard Square, St. Louis, MO 63188, USA.

Rhone Poulenc (Booth 42) produces textured vegetable proteins characterized by excellent nutritional value and a meat- or fish-like texture appearance. They permit production of low-cost, all-vegetable foods. Different flavors are available. Dried or deep-freeze cubes can be supplied. Rhone-Poulenc also will be displaying their purification process for vegetable proteins (alfalfa, rapeseed, soybean) by adsorption on Spherosil R selective adsorbent which provides high purity and quality proteins. Mailing address: Rhone Poulenc Chimie Fine, 21 Rue Jean-Goujon, F-75360 Paris Cedex 08, France.

A.E. Staley Mfg. Co. (Booths 40 and 41) of Decatur, Illinois, USA, was the first commercial processor of soybeans in the United States. Today the Staley Company offers a complete line of food grade soy flours, textured soy flours, soy grits, soy protein concentrates, textured soy protein concentrate, enzyme-modified soy proteins, and hydrolyzed vegetable proteins. Typical European and English sausages and American ground beef products, as well as various confectionary products, utilizing soy protein will be available for tasting at the Staley booths. Mailing address: A.E. Staley Mfg. Co., P.O. Box 151, Decatur, IL 62525, USA.

Tecator AB (Booth 17). Mailing address: Tecator AB, Kronborgsgatan 6, Box 308, S-251 04 Helsingborg, Sweden.

Technicon Corporation (Booth 35) is a leader in the development, manufacture, and marketing of automated instruments and systems for blood and serum analyses, as well as the analysis of foods, pharmaceuticals, water pollutants, cereals and grains, and other industrial products. With headquarters in Tarrytown, New York, USA, Technicon has a worldwide staff of more than 4,000 persons in 48 locations for manufacturing, sales, service, and distribution in 23 countries. Technicon's Industrial Division developed the InfraAnalyzer, a high speed, automatic infrared reflectance analyzer for agricultural products. The InfraAnalyzer analyzes these products not only for the protein and oil (fat) content, but also for moisture and other parameters. Technicon works closely with U.S. government agencies to develop specialized testing programs and has, in recent years, developed its Differential Integrating Spectrophotometer Computer (DISC) for basic research. Several new applications have been developed during the past year, including analysis systems for pet food manufacturers. Mailing address: Technicon Instruments B.V., Prins Hendrikkade 13, 3071 KB Rotterdam, The Netherlands.

Tintometer GmbH (Booth 50) and "Lovibond" are names long associated with the oil and fats industry, not only as manufacturers of the Lovibond Tintometer Color Measuring Instrument, but as manufacturers of color scales and instruments used extensively throughout the industry. The exhibit will feature the Tintometer conforming to AOCS specification Cc 13b-45 (1962); the Gardner Scale confirming to AOCS specification Td 1a-64-KA 3-63 DIN 6161 and ASTM D-1544-68; and the FAC Scale in accordance with AOCS specification Cc 13a-64. Also featured will be the Lovibond Automatic Tintometer, capable of measuring refined vegetable oils within seconds, producing an objective red and yellow reading matching up with those obtained on the regular Lovibond Tintometer. Mailing

address: Tintometer U.S.A., P.O. Box 17, Bloomingdale, NJ 07403, USA.

UniMills Zwijndrecht, Holland (Booths 45, 46, 47, 48), is a part of Unilever with years of experience in the field of soy protein. Its activities cover Europe and expanding markets throughout the world. The blandness and functionality of UniMills concentrates (flour and textured) and isolates open broad and additional applications with good consumer acceptance. The World Conference on Vegetable Food Proteins in Amsterdam is the platform to demonstrate those results. An exchange of UniMills extensive know-how and research covering soy nutrition, health, and marketing aspects will be possible during the exhibition hours. UniMills invites all conference members for discussions at its booth. Mailing address: UniMills B.V., Lindtsedijk 8, Zwijndrecht, The Netherlands.

Wenger Manufacturing of Sabetha, Kansas, USA, and its export division, **Wenger International, Inc.** (Booths 18 and 19) will display textured soy meat extenders and meat analogs produced by its extrusion cooking system. A film presentation will explain the principles of extrusion cooking, control of process variables, need for sanitation and its effect on off flavors in textured protein foods. The slide presentation will include electromicroscopic views which illustrate the structure of vegetable proteins as they are produced as meat extenders. Wenger will describe its Uni-Tex process for production of meat analogs that bear an uncanny resemblance to the appearance, structure, mouthfeel, and mastication characteristics of meat. Mailing address: Wenger International, Inc., Franklin Rooseveltplaat 12, B-2000 Antwerpen, Belgium.

Westfalia Separator (Booth 26). Mailing address: Westfalia Separator, Werner-Habig-Strasse, D-4740 Oelde 1, West Germany.

from Washington



U.S. vegetable protein producers had mixed initial reactions to FDA's proposed final regulations. The "tentative final regulation" was published July 14, 1978, with a tentative effective date of July 1, 1979.

The rules establish nomenclature for vegetable protein products and nutritional requirements for vegetable protein products designed to substitute for and to resemble traditional protein-rich foods.

Basic vegetable protein material containing less than 65% protein may be identified as a "flour." A soy-based product in this category would be "soy flour" with an alternative name based on description of its physical characteristics, i.e., "soy granules" or "soy bits." A producer would have the option of combining the two alternatives, "soy flour granules." The term "protein" could not be used in the name of these products.

Basic products of 65 to 90% protein would be described as "protein concentrates," with the source specified: "soy protein concentrates," or, with an optional physical descriptive term, "soy protein concentrate bits."

Basic products with 90% or more protein would be termed "protein isolates," with the source specified: "soy protein isolate" or "isolated soy protein." Physical descriptive terms such as bits and granules would again be optional for this class of products.

(Continued on page 729A)