school of nutrition said that the future of the dairy industry lies in concentrating on the sale of whole milk and possibly on cheese, but butter will have to compete with fortified vegetable fats. He advised the dairy industry to get away from fixed standards and find more economical outlets for its fats, such as dairy spreads using skim milk solids.

J. C. Hackney of Braun & Co., Vancouver, discussing consumer preferences for livestock products, said his studies show that beef is the most popular meat by far, making up 37% of all demand. Smoked meat makes up 12% of demand, with fresh pork at 11%, poultry at 10%, and lamb and fish with 3% each. He said there was a special need to produce more lamb and promote for year-round consumption. Consumption of meat in the U. S. is appreciably higher per person than in Canada, which should ensure continuing markets for Canadian livestock producers, he said.

Cocoa Supply Expected to Improve

CHICAGO.—With the price of cocoa beans towering in the 60 to 70 cents-perpound range, after an abrupt rise from about 40 cents in November 1953, large numbers of seriously concerned confectioners were on hand here last week for a panel discussion dealing with cocoa beans, chocolate, and confectioners coatings. Staged during the annual convention of the National Confectioners' Association as a joint session with the Associated Retail Confectioners of the U. S., the half-day panel played to a standing-room-only audience. According to Philip P. Gott, NCA president, the price of cocoa beans-now about 13 times the 5 cents-per-pound level of 1941—is forcing candy makers to decide whether to reduce the amount of chocolate in their products, or raise their prices to correspond with those of their

Justin J. Alikonis (right), director of research for the Paul F. Beich Co. and president of AACT, receives the Stroud Jordon Award from Hans Dresel of Felton Chemical, award winner in 1953. The award is presented for "outstanding contributions in the field of candy technology"



raw materials. The latter alternative would almost certainly mean elimination of the traditional 5-cent candy bar.

While it by no means solves the immediate problem of prohibitive cocoa bean prices, the long-term outlook in the cocoa situation is generally favorable, according to Jacob M. Schaffer of the Business and Defense Services Administration. Production trends are up in the two principal Latin American producing countries, Brazil and the Dominican Republic, Schaffer reported.

Some of this increased production, Schaffer observed, may be attributed to application of improved practices developed through years of research at experiment stations. In Brazil, for example, more attention has been given to rehabilitation of existing plantations and trees than to extending cultivation to new acreage. In Puerto Rico and areas in which improved practices have been applied under controlled methods, production has been raised from the usual level of about 100 pounds of cocoa beans per acre to a level of 500 to 600 pounds per acre. New plantings are going ahead at a good rate in many areas. One such area is Costa Rica, which in the next few years will show a "very substantial increase" in production, Schaffer said.

The American New Production. Cocoa Research Institute, according to ACRI consultant L. J. Schwarz, has been working steadily not only in the Western Hemisphere, but in promising areas throughout the world, to establish new production wherever feasible, and to improve production practices wherever possible. In the past two or three years alone, said Schwarz, ACRI has supervised the cutting out of some 27 million diseased trees in the Gold Coast area of Africa, in order to combat swollen shoot disease. Removal of affected trees is the only control method known thus far; the disease is now coming under control, Schwarz observed, and production in the Gold Coast area should improve henceforth. Also in Africa, ACRI has assisted Liberia in the establishment of a cocoa-growing industry.

In the Western Hemisphere, Schwarz stated, ACRI's efforts have been concentrated on building up a core of specialists in cocoa culture, production, and research. At the same time, the institute has pushed research and development at its research center, dealing with pests and disease control, development of improved species, and plant nutrition. Scientists are currently at work on high-yield plant materials that promise to afford 10 times the 100 to 200 pounds per acre cocoa yields currently realized in Mexico and Ecuador, Schwarz reported.

By-Products Used. Much discussion following the panel presentation was devoted to the use of confectionery coatings, based on "hard butter" or hydrogenated (hardened) vegetable oils and dry portions of the cocoa bean previously considered by-products. "Fairweather" interest has delayed scientific development of such coatings as replacements for traditional pure chocolate coatings, according to J. J. Alikonis of Paul F. Beich Co., and has left the confectionery industry poorly equipped to handle such emergencies as the current cocoa market situation. Interest is now at an all-time high, said Alikonis, and confectioners have an unprecedented opportunity to improve and extend the use of confectioners' coatings.

Actually, marked improvement in the quality of such coatings has been effected during the past few months, and their use is expected to expand rapidly—especially as long as raw material prices are exceptionally high. A subcommittee on confectionery coatings, operating under the NCA's research and development committee, presented during the panel discussion its preliminary, confidential report outlining basic precautionary steps that should be followed by confectioners in adapting their processes to use of the new coatings.

Industry

Columbia River Chemicals' NH₃ Plant to Be Built by Fluor

Columbia River Chemicals, Inc., has awarded the contract for its proposed nitrogen fertilizer plant near Pasco, Wash., to Fluor Corp. The plant will produce 160 tons of anhydrous ammonia a day, 110 tons a day of urea, and 140 tons of ammonium sulfate a day, according to the principals, W. R. McRae, and A. F. D. Short. The output will be for agricultural purposes, it was said, except for 50 tons of each day's anhydrous ammonia and 15 tons of urea each day.