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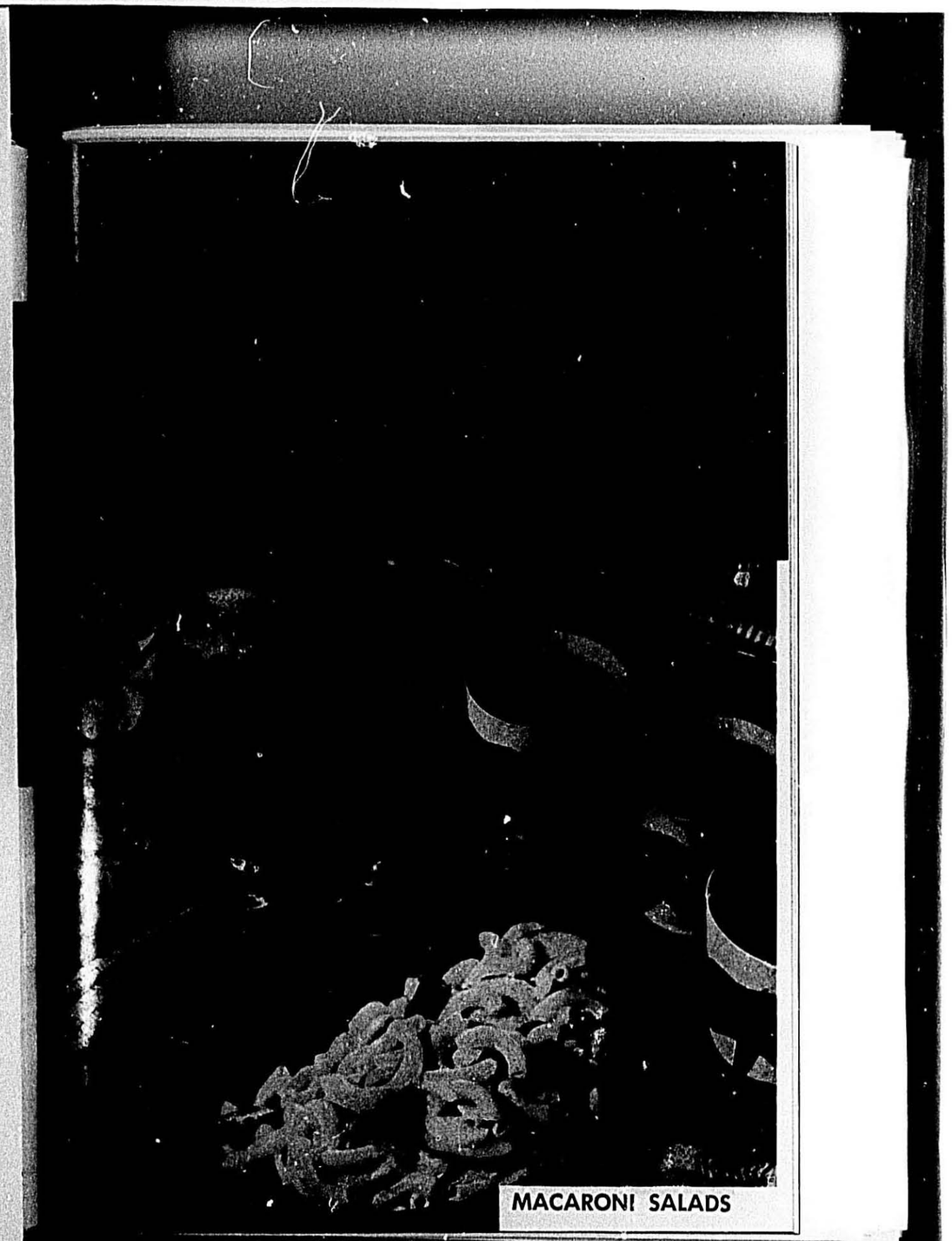

MACARONI SALADS

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The Macaroni Journal

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MACARONI JOURNAL

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In This Issue:

Profits—Not Miracles—Spur Food Production

Editorial from Council of California Growers

Frequent cries of alarm are heard because some of this country's farm products are sold overseas. If heeded, the result could be economic disaster.

Farm products sold to foreign countries during the year that ended June 30, 1974, brought $21.3 billion into this country. In contrast, the farm products we imported cost some $9 billion. Farm products produced a $12 billion balance of trade surplus.

Considering the price we pay for the oil, cars and TV sets we import, it is somewhat comforting to learn that farm exports this year should climb over the $22 billion mark. Most of this increase, unfortunately, will not be the result of higher volu e. It w the result of price increa es.

Those who want to c it had farm exports apparently don't k that almost $1 in every $ the A can farmer received las year from a foreign source. They know that almost one in every acres harvested in the U nited produces crops for expor . That stimulate full productio which turn, helps keep the pr ces w for those products down.

It isn't always easy fo our f to compete because the gover of many countries subsidize farmers' production. No one the ability of our farmers to c against the farmers of any country. But they shouldn't b pected to compete against ments.

(Continued on pa

Pasta Lovers Enjoy Home Garden Summer Harvests

Home gardens are flourishing. Beautiful fresh vegetables grown in the backyard, on the patio or terrace are now ready to eat. Team them with pasta for great eating. Mix a variety with elbow macaroni, egg noodles or spaghetti in salads, sauces and hot dishes.

Macaroni Supper Casserole is an excellent way to begin. Elbow macaroni and a tomato-meat sauce are layered with green and yellow vegetables topped with bright red tomato wedges. Substitute green beans for the broccoli, if you wish, and corn for the squash. It's one of those very versatile combos which lends itself well to the imaginative cook. Our recipe gives as an alternate of frozen vegetables so you may enjoy the dish year 'round.

Backyard Supper Salad is another route to go. Add cucumbers, onions, green beans or tomatoes—whatever suits the mood of the moment.

Mandarin Chicken Salad

Macaroni Supper Casserole
(makes 6 servings)

- 2 cups elbow macaroni (8 ounces)
- Salt
- 3 quarts boiling water
- 1 pound ground beef
- 1 large onion, sliced
- 1 large garlic clove, crushed
- 1 can (15 ounces) tomato sauce
- ½ teaspoon oregano leaves, crushed
- ½ pound pasteurized process Swiss cheese slices, cut into small pieces
- 2 packages (10 ounces each) frozen chopped broccoli, thawed and drained
- 1 package (10 ounces) frozen sliced summer squash, thawed and drained or ½ cup sliced fresh squash
- 4 medium tomatoes, cut into wedges

Gradually add macaroni and 1 tablespoon salt to rapidly boiling water so that water continues to boil. Cook uncovered, stirring occasionally, until tender. Drain in colander.

In a large skillet, combine beef, onion and garlic. Cook until beef is browned, stirring constantly. Drain off fat. Stir in tomato sauce, 1 teaspoon salt and oregano. Heat to boiling.

Reserve ¼ cup Swiss cheese for top of casserole, if desired. In an ungreased 3-quart casserole, layer ⅓ sauce mixture, ½ macaroni, ½ Swiss cheese and ½ broccoli. Repeat layering. Arrange squash slices with broccoli. Top with remaining ⅓ sauce. Cover with foil; bake in a 400° oven for 25 minutes. Uncover; sprinkle on reserved cheese. Arrange tomatoes over macaroni mixture. Return to oven and bake uncovered 5 more minutes, or until tomatoes are just heated through.

Backyard Supper Salad
(makes 4 servings)

- 2 cups elbow macaroni (8 ounces)
- 1 tablespoon salt
- 3 quarts boiling water
- ¼ cup bottled Italian salad dressing
- 1½ cups thinly sliced carrots
- ⅔ cup mayonnaise
- 1 teaspoon salt
- ½ teaspoon each: dry chives, fennel seed
- ⅛ teaspoon seasoned pepper
- 2 tablespoons vinegar
- 2 cups cooked peas
- 1 canned pimiento, diced
- 1 can (12 ounces) luncheon meat, cut in strips

Gradually add macaroni and salt to rapidly boiling water so that water continues to boil. Cook uncovered, stirring occasionally, until tender. Drain in colander. Rinse with cold water; drain again. Pour Italian dressing over carrots and chill. In bowl, blend mayonnaise, remaining seasonings and vinegar. Add macaroni, peas and pimiento; toss and c
Serve macaroni salad with arrots
luncheon meat, arranged n top.

Mandarin Chicken Salad
(makes 8 servings)

- 4 oz. (1 cup) macaroni ring elbow macaroni
- 2 cups cooked cubed chicken
- 1 cup diced celery
- 1 cup salad dressing
- 1 tablespoon minced onion
- ½ teaspoon grated lemon pee
- 1 tablespoon lemon juice
- 1 teaspoon salt
- 1 can mandarin orange segme drained
- 1 cup seedless green grap halved
- 1 cup whipped heavy cream
- ⅓ cup slivered almonds
- 8 lettuce leaves

Cook macaroni rings in boi salted water (1 gallon water tablespoons per pound) until te yet firm, about 4 to 5 minutes; d Rinse with cold water to cool; d

Combine macaroni rings, chic celery, salad dressing, onion, le peel and juice and salt. Cover chill thoroughly. Before serving in drained oranges, grapes, whip cream and almonds. Portion lettuce leaves to serve.

Macaroni Garden Salad
(makes 4 servings, about 264 cal per serving)

- 2 cups elbow macaron (8 ou
- 1 tablespoon salt
- 3 quarts boiling water
- 1 cup creamed cottage chees
- 1 cucumber, thinly sli d
- 8 radishes, thinly slice
- 1 cup diced celery
- 1 tablespoon chopped nion
- 1 teaspoon salt
- ½ teaspoon dry mustar
- 3 tablespoons low cal rie It salad dressing
- 1 medium head Boston lettuc

Gradually add macaron and s rapidly boiling water so that w continues to boil. Cook uncov stirring occasionally, until t Drain in colander. Rinse in water; drain again.

Combine remaining ingredie cept lettuce; toss with mac Chill. Serve salad in lettuce bowl.

Why Food Prices Hold Up

Farm prices skidded 14% between mid-October and mid-April. But retail food prices, while dropping slightly in February and March, have stayed near their highest level in decades. So it seems reasonable to assume that somewhere between the pod and the plate, somebody is profiteering.

But that doesn't seem to be the case. Consider wholesale grocer Malone & Hyde Inc.

True, the Memphis-based firm has enjoyed a 39% jump in net profits on a 25% rise in sales so far in its fiscal year ending June 30. And by other financial yardsticks as well, this middleman is in the pink of health.

Yet Malone & Hyde, which buys from food processors and brokers and sells to independent retail stores, does little to boost cash-register totals: Its gross margin on a sack of groceries that it sells for $8, and that you pay $10 for at the store, amounts to less than 50 cents; its net profit amounts to 7 cents; and on most of the food it buys for resale, the company's markup has stayed at 3%—3½% outside the Memphis area—for 30 years now.

A Downward Impact?

What's more, many food experts believe that Malone & Hyde, and other wholesalers like it, actually help keep food prices down by helping independent supermarkets enter the business and stay in it, providing competition for the supermarket chains. (Whether independent or not, it should be noted, a store doesn't make much more on that sack of groceries than Malone & Hyde does. The chains say they clear 10 cents or so on $10 worth of groceries.)

Because the cost of processing and distributing food has long accounted for roughly half and sometimes far more of its retail price, as a matter of simple arithmetic what happens to prices on the farm is never precisely reflected in the store. In an extreme example, a 31-cent can of beets contains less than 2 cents worth of beets, so that if growers suddenly started giving beets away to processors, the price of a can of them would drop by only about 5%.

Burdens and Markups

Lately this effect has been compounded by the rising costs of labor, fuel, packaging and other items throughout the food distribution system. The main burden of these increases falls originally on food processors. It is passed on, however, in the form of higher prices. And the price changes are then magnified by the markups of other middlemen. If a canner, for instance, raises the price of green peas by $1 a case, Malone & Hyde, simply by retaining its 3% markup, raises its price to retailers by $1.03 a case. (By the same token, if the canner lowers his price $1 a case, Malone & Hyde lowers its price $1.03 a case. Changes are magnified both up and down.) Most wholesalers operate on this same cost-plus basis which means they add a percentage fee.

As a result of these generally rising costs, the impact of any decline in farm prices is largely negated before the food reaches the consumer. The farmer's share of the consumer's food dollar is 39 cents today, down from a high of 53 cents in August 1973, but the consumer is getting less food for a dollar today.

Food Distribution Network

Near the center of the food distribution network—which includes such diverse enterprises as grain elevators, seed crushers, butchers, truckers, freezers, food brokers and gourmet shops—is Malone & Hyde. And although each middleman is different, a close look at the operations of one, its efficiencies and inefficiencies, helps explain how the whole system works and the role it does and doesn't play in what you pay for what you eat.

In the business, Malone & Hyde is known as a "voluntary wholesaler," so called because it supplies independent food stores that voluntarily agree not only to buy from it, but to buy most of their goods from it. The firm opened for business in 1907 selling meat, meal and molasses to plantation commissaries in the mid-South. It became a voluntary in 1945 as independents began pooling their buying power in an effort to meet the competition from supermarket chains.

Today, Malone & Hyde serves 1,600 stores in 15 Southern states. It is the nation's fifth largest food wholesaler, outranked by two voluntaries, Super Valu Stores Inc. and Fleming Cos., and by two cooperatives, Certified of California and Wakefern Foods. Co-ops are like voluntaries except that they are owned by the retailers they serve. Together, voluntaries and coops, along with unaffiliated wholesalers, handle roughly half the nation's groceries. Chain stores, which do their own wholesaling, handle the rest.

Improving Efficiency

These days pinching pennies is easy, for the middleman any more than for the consumer. Malone & Hyde's own costs have been rising sharply. Its largest outlay, for labor, went up 50% last year. Its second largest outlay, for diesel fuel, rose from about 30 cents a gallon from about 8 cents.

While the company doesn't raise the standard markup to offset these increases, it has other means of compensating—greater efficiency, greater volume, and a product mix containing more items on which its markup is higher than 3%.

Improving efficiency isn't so easy. For one thing, Malone & Hyde is already pretty efficient. When its customers place an order, for example, it is accompanied by a signed blank check, virtually eliminating the wholesaler's collection problems and giving it the use of cash for several extra days. This also enables Malone & Hyde to pay cash for whatever it buys. (The firm keeps, rather than passing on to its customers any cash discounts and other allowances from manufacturers, such as those for advertising. If it weren't for these discounts and allowances, Malone & Hyde's gross margin would be about half what it is.)

Another example of efficiency: Using electronic inventory devices, supermarket operators can place their entire week's order directly with the Malone & Hyde computer in minutes by telephone instead of waiting for salesmen to visit. And groceries in all but one of Malone & Hyde's nine warehouses are stacked according to family groups now, just like the groceries in supermarket aisles. This means that orders can be filled without backtracking by the workers who ply the aisles at night on electric trucks pulling long trains of oversized grocery carts.

Still, like most of the food industry, Malone & Hyde's operations continue to be burdened with some costly inefficiencies that haven't been overcome. As at other wholesalers, the typical case of grocery product is still picked from the warehouse shelf by hand, unloaded from a cart at the shipping dock and stacked in a truck, which carries it to the supermarket, where it is again unloaded manually and stacked on a pallet. From here, the case will be toted to the shelves by a stockboy.

New System Developed

The company has developed a labor-saving system whereby cases in the warehouse are stacked on a cart that can be rolled directly onto the truck, into the supermarket and down the aisles. Putting the system into effect has been slow, however, because equipment must be installed at many supermarkets to compensate for variations in shipping-dock height, and it takes time. So far, the system has been fully installed only in the company's Nashville and Jackson, Miss., warehouses.

The answer to rising costs is rising volume, which boosts net income by spreading fixed costs over more units. To keep building that volume, Malone & Hyde and other voluntaries do more than merely buy goods by the carload and resell them by the case. In addition to distributing food and other items to the retailer, they provide him with such services as store design, site location, insurance, inventory and accounting controls, and group advertising.

NATIONAL MACARONI WEEK WILL BE CELEBRATED OCTOBER 9-18, 1975.

Data Can Boost Productivity

Productivity at the store and warehouse levels can be watched closely, and usually improved, with the proper use of the mountain of data that become available as computers and electronic data systems come into wider use.

Cost analyses and other breakdowns of data offers a degree of accuracy never before dreamed of. This became evident as SMI members at the 38th annual convention listened to a wholesaler and a retailer who have been using data obtained from their systems for sometime, to find solutions to problems.

Wholesaler-Retailer

The wholesaler was Charles Fitzmorris, Jr., president, Benner Tea, Burlington, Ia. The retailer was Jack Sanford, manager of industrial engineering for Supermarkets General, Woodbridge, N.J. And the topic was Technical Solutions for Improving Productivity at Store and Distributor Levels.

Sanford pointed out the necessity of inserting a correction factor before the dollar figure could be used for comparison. "In order to build a system which didn't rely on the fluctuating dollar, we developed a program we call tonnage reporting, in which work measurement is tied to work units.

"The systems changes involved were quite extensive and may not be justifiable in many of your stores," Sanford said. "However, the construction of standard data, based on units rather than dollars, will allow easier adjustment in any reporting system."

He gave several samples of labor scheduling which becomes an almost exact science with the use of proper data. Two sets of charts for fixed and variable functions in the meat department were shown.

By breaking down the exact time required to prepare any given cut of meat or poultry, it becomes possible to predict the expected work hours required in any store's meat department for a given week, if one knows what cuts of meat or poultry will be featured in that week's ads.

Through combining that information with sales averages for any time and-or season (which is available from the electronic front end) scheduling of labor becomes simple, he said.

Another advantage in the use of breakdowns comes in the isolation of labor-intensive areas for concentrating efforts toward improvement.

Sanford cited examples of grocery packout data, in which wide variations were noted from product to product.

At Benner Tea

Fitzmorris, who also has such comparative figures available, said when his warehouse bills product, one of the facts the computer lists is the actual packout-time standard for each item on the bill. This permits the store manager to gauge needed time and scheduling of personnel in advance of the arrival or orders.

Pathmark also makes this information available to store managers, to help them schedule labor.

Through the use of performance standards, it is possible to set up efficiency ratings for every department and function in the store, schedule personnel and then measure performance against a goal of 100 per cent efficiency, Sanford said.

He warned that the figures would vary from store to store because of a host of potential variables.

Once the overall standards are refined for the specific environment of a store or department, a set of targets for that store becomes available.

Good systems also pinpoint, and thus permit the removal of, productivity obstacles. Sanford stressed.

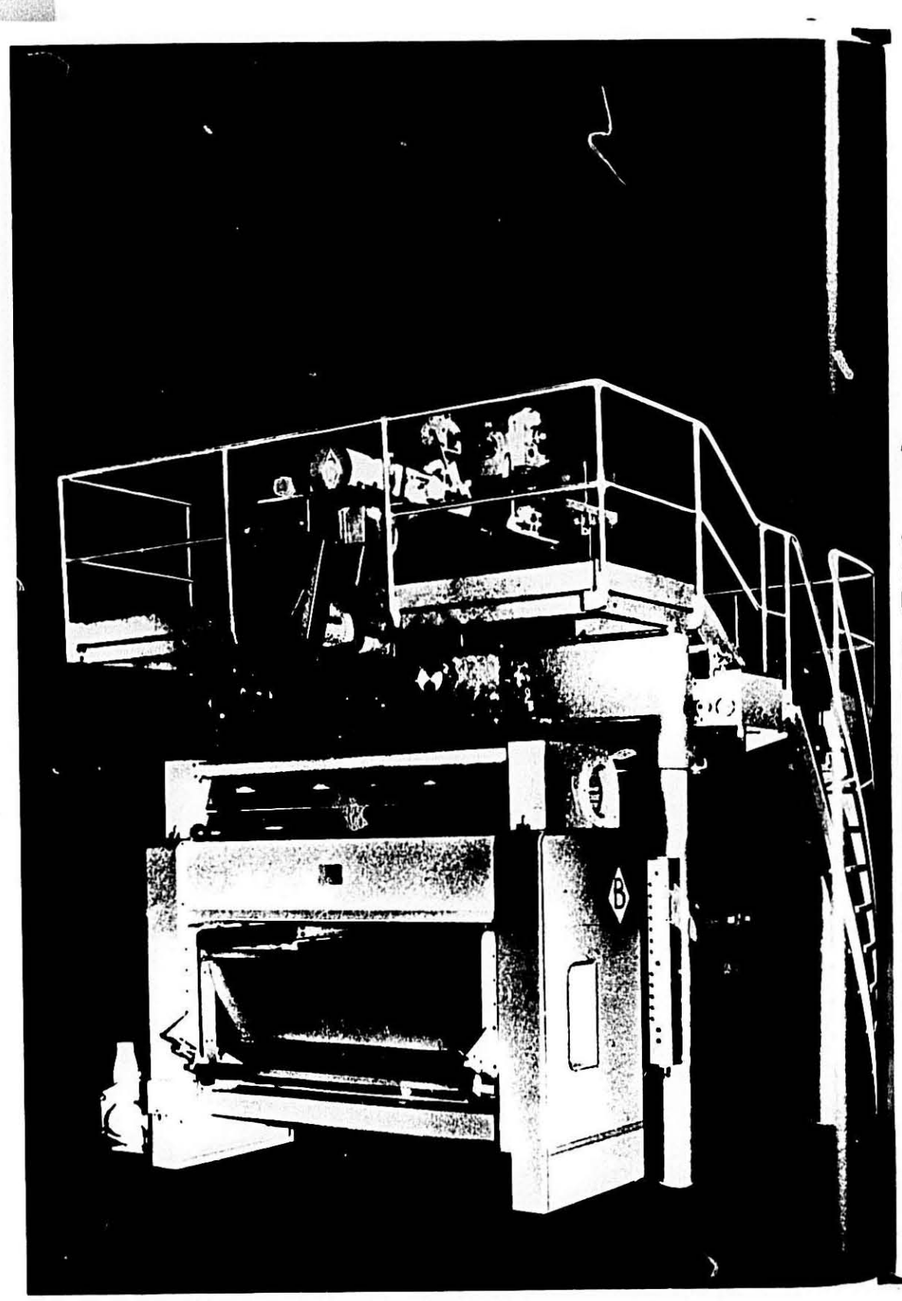
A saving of one excess hour a week per store, at a base wage rate of $5 and fringe benefits of $1.25 an hour, can save $325 for that store, he noted.

Efficient Warehouse

Fitzmorris, who told the group his warehouse is "number one on the productivity" rating list issued by the National American Wholesale Grocers' Association, said his grocery warehouse is on a four-day 10-hour schedule for picking and delivering orders. Receiving and perishables are on five-day schedules. He said this system has proven itself for Benner.

He outlined Benner's step-by-step progression into computer controls and systems, which saw the firm install an on-line warehouse manage-

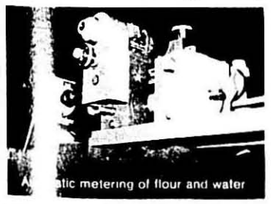
(Continued on page 12)



The new breed

When the world's largest and most successful manufacturer of pasta equipment redesigns their presses, you *know* they're even better than before. This new generation of presses has high speed turbine mixers for improved hydration, redesigned double-shaft mixing troughs for more thorough kneading, and dozens of other design changes for faster cleaning, easier maintenance. Automatic metering of the micro-dispersed water reduces the chance of moisture buildup on the trough so there's less danger of dough fermentation. And plate counts are still lower than before. Even the paddle shafts oscillate to sweep all corners free of residue. The new breed of presses is available in models from 1100 to more than 4000 pounds per hour, for both long and short goods. The new breed from Braibanti, another new standard for the Pasta Industry.


Double-shaft mixing troughs.


Automatic metering of flour and water

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Data Can Boost Productivity

(Continued from page 9)

ment system in 1974 to control day-to-day distribution of merchandise, warehouse product placement, picking and a host of other management functions.

The system has helped the picking rate move from 150 cases to 220 an hour.

Fitzmorris said, "We don't have any of those high-volume stores that Pathmark has, so our figures and systems aren't comparable. He added with a twinkle, "But we've got a couple of stores doing over $100,000 a week, and they're doing all right."

Those $100,000 stores get three deliveries a week, and they average 52 cases an hour put into stock. Stanford indicated Pathmark averages 40, but then noted that functions different from Benner's were involved.

Carts Help

"The use of carts definitely help us," Fitzmorris said. "We went to carts to save on transportation and delivery, but we didn't save a damned thing . . . The loss of cube offset our handling savings."

Outside of a dramatic change in product mix occasioned by the change in the economy, increases or decreases in over-all store sales generally are reflected throughout the store and for all categories, both men noted.

Both firms are working on programs to balance delivery loads, and are considering scratching slow movers on busy days and then delivering them on normally slow days.

Sanford said Pathmark is working on systems and pieces of equipment the firm hopes will increase productivity. Among them is a checkstand designed to improve productivity.

Fitzmorris said "direct deliveries" is the problem he feels is the most pressing. His firm is seeking to remedy that one.

NMI Recognition

Family Circle Magazine and the Food Council of America presented the National Macaroni Institute with a Gold Leaf Certificate of Recognition for the creation of outstanding contributions to nutrition education.

The announcement was made at the American Home Economics Association's Annual Meeting and Exposition in San Antonio, Texas, June 23.

Seated at dinner with Vincent DeDomenico (right) of the Golden Grain Macaroni Company is Tom Harris, Marketing Director of Certified Grocers in Los Angeles. The dinner attended by 75 Southern California retail grocery executives, was hosted by Golden Grain and featured dishes prepared from Golden Grain products which are being introduced into the Southern California area.

Already well known in Southern California for Rice-A-Roni, Noodle Roni and other packaged dinner products, Golden Grain is now entering the market with a full line of pasta products. A major advertising campaign backing the introduction of the line is underway.

A judging panel of fourteen home economics educators evaluated and rated the entries submitted by 57 manufacturers and associations A national cross-section of supervisors and teachers also had the opportunity to nominate the education materials they considered most valuable via a mail survey.

Among the materials submitted by the National Macaroni Institute was a leaflet on the Nutritional Value of Macaroni, Spaghetti and Egg Noodle Products. A new film "Macaroni, Nutrition and Numbers", covering the subject of nutritional labeling and the nutritional contributions of macaroni products was shown at the Home Economics Convention.

Good Consumer Relations= Good Business

Guidelines for establishing company-consumer relations programs adopted by the Chamber of Commerce of the United States, February 26, 1970.

We are committed to advancing the four basic rights of consumers: The Right to Safety . . . to be Heard . . . to Choose . . . and to be Informed. We propose to add a fifth consumer right: The Right to Quality and Integrity in the Marketplace.

In furtherance of these five rights we affirm the responsibility of American business to:

1. Protect the health and safety of consumers in the design and manufacture of products and the provision of consumer services. This includes action against harmful side effects on the quality of life and the environment arising from technological progress.

2. Utilize advancing technology to produce goods that meet high standards of quality at the lowest reasonable price.

3. Seek out the informed views of consumers and other groups to help assure customer satisfaction from the earliest stages of product planning.

4. Simplify, clarify, and honor product warranties and guarantees.

5. Maximize the quality of product servicing and repairs and encourage their fair pricing.

6. Eliminate frauds and deceptions from the marketplace, setting as our goal not strict legality but honesty in all transactions.

7. Ensure that sales personnel are familiar with product capabilities and limitations and that they fully respond to consumer needs for such information.

8. Provide consumers with objective information about products, services, and the workings of the marketplace by utilizing appropriate channels of communication, including programs of consumer education.

9. Facilitate sound value comparisons across the widest possible range and choice of products.

10. Provide effective channels for receiving and acting on consumer complaints and suggestions, utilizing the resources of associations, chambers of commerce, better business bureaus, recognized consumer groups, individual companies, and other appropriate bodies.

Case Studies on Company Leadership in Consumer Affairs

General Foods Corporation

General Foods markets several hundred products under some 40 brand names. In its General Foods Kitchens, 100 women employees (food technologists, home economists, nutrition and editorial experts) are responsible for guaranteeing that each product meets every claim for it; that it can be made as pictured to the public; and that instructions are simple.

The staff serves as the communications link with the consumer by participating in meetings and conventions of various women's groups and by answering 2500 letters a week from consumers.

To help the consumer with food preparation. General Foods maintains a file of over 25,000 recipes which are used on product boxes, in sales promotion and in recipe books.

For a number of products, the company is increasing the information contained on the package, to give a detailed explanation of product ingredients and nutritional values as well as package volume.

In the area of consumer education, General Foods has published a practical series of pamphlets addressed to the major consumer issues of the food industry. These have been written by Charlotte Montgomery, magazine writer and lecturer on consumer interests, and include a discussion of additives, and their use in foods; the role of profit; food advertising; and packaging.

Since 1966, General Foods has sponsored community leader tours, each for upwards of 100 women, in 15 plant communities across the country. Corporate level vice presidents have participated in these to present General Foods' philosophy first-hand to the women. They discuss such issues as the role of profits, freedom of choice, government regulations and new product development. To reach a broader segment of the community, each guest is offered a set of color slides of her tour and a written commentary describing work at the plant. Sixty to seventy-five percent of those who tour a General Foods plant under this program request this package, and follow-through has shown that it is presented at least once by each woman.

Contact for further information: Director, General Foods Kitchens, 250 North Street, White Plains, New York 10602.

General Mills, Inc.

General Mills' special concern for consumers has a 50-year-old history, dating from 1921 with the concept of Betty Crocker as a symbol of service to homemakers. Today, the seven Betty Crocker Kitchens of the World and adjoining offices consitute the consumer service arm of General Mills.

Here a staff of more than 60 women develop recipes, edit cookbooks, filmstrips and other publications and answer about 40,000 letters and 24,000 telephone calls from consumers each year. These include requests for recipes, questions of product availability and complaints.

Approximately 100,000 visitors tour the Kitchens every year, where they see a multimedia presentation, "The World of Betty Crocker," and receive gift bags containing products and recipes.

All recipes, whether for product packages, advertising or the Betty Crocker Cookbook series, are thoroughly tested by home economists in the Kitchens and then by a panel of homemakers in their own kitchens across the country.

A Learning Aids program of color filmstrips have been viewed by more than 2,000,000 students.

The Betty Crocker Search for the American Homemaker of Tomorrow, an educational program for high school senior girls, has been conducted annually since 1954. On the basis of a written test, it rewards outstanding homemaking knowledge and attitudes with college scholarships ranging from $500 to $5000. In all, more than 8,250,00 girls have participated with 1700 receiving scholarships totaling nearly $2,000,000.

In addition, the Kitchens yearly distribute almost a million pieces of printed materials to consumers and educational institutions. "Cooking with Betty Crocker Mixes," a co ection convenience recipes for the blind a handicapped, is made av ilable Braille, large type and a dio t versions.

To keep in contact with consum ideas across the country. Gener Mills' Market Research Departme spends about $2 million a year consumer studies and intervie about 150,000 personally, by t phone or mail.

In the area of consumer safe General Mills, spent $4,200,000 year in the United States and Cana on food quality control programs Nutrition Service Department p pared nutritional data for packa and literature on the nutritional c tent of products for consumers the medical profession.

In the Fall of 1971, General M management held a Conference Consumer Concerns for key inter personnel and the company's adv tising agencies. Speakers from gov ment, business and the law profes were present and corporate gu lines of quality, value, nutrit safety and satisfaction were revie and implemented at levels of da day operation.

Contact for further informa Mrs. Betty Lemmer, Supervisor Editorial Publicity, Bett Croc Kitchens, 9200 Wayzata Boule Minneapolis, Minnesota 55 40.

Hunt-Wesson Foods, Inc.

"We'll Help You Make t" was lead of a four-month cons ner-as ance campaign initiated by H Wesson in 1970. Design l to h any size, any income-level family, cluding those on food stamps, promoted eating within a f od bu while understanding an mea necessary nutritional stan ards.

Hunt-Wesson offered c nsumer month's free menus based on fa size, age and food budget. The o ing included menus for three m a day, cooking suggestions and h ing tips.

Participating coupons were of in 155 newspapers and women's gazines, in addition to grocery st Completed coupons were mailed

Consumer Affairs Leadership

(Continued from page 14)

the Hunt-Wesson computer center where an IBM 360 Model 40 computer has been programmed to select up to 30,000 month's menus a day.

The total program cost $2.5 million, with 704 hours alone being put into menu development.

Contact for further information: Fifi Booth, Manager of Public Relations, Hunt-Wesson Foods, Inc., 1645 West Valencia Drive, Fullerton, California 92634.

Kraft Foods Division

Today, more than ever, teen-agers have considerable influence on the family's food purchases and are involved in planning and preparing a significant number of family meals. Helping them achieve good nutrition and balanced meals along with proper shopping skills now for the future is one of the underlying goals of Kraft Foods educational program.

Kraft's program started in 1961 with an advertising campaign in the home economics teacher and youth magazines. Through these media, Kraft's recipe ideas, service and product are presented to both teachers and teen-agers.

The advertising message to the home economics teacher in her magazines provides lesson information which she can use in her classes. The ads are inserted in such a manner that they can be removed and become classroom wall charts and quantities of reprints are made available for teacher distribution.

For those teens who may not be taking home economics classes, Kraft's advertising campaign in youth magazines features menus, recipes and party ideas to help them achieve the goal of good menu planning.

Since 1962, in addition to the advertising, Kraft has made available educational filmstrips on the subjects of breakfasts, meats and vegetables. In order to meet the new and expanded needs of home economics teachers and to prepare for the anticipated demand for consumer education classes, since 1970 Kraft has revised this educational program by offering a series of comprehensive teaching kits covering various food categories. The first of these is the "Complete Teaching Kit on Cheese," which includes cheese history, manufacture, nutrition, and menu preparation presented in an up-to-date teaching-tool format consisting of a lesson plan, overhead transparency units, filmstrips, wall charts, etc. Similar kits are provided on the subject of Salads and Salad Dressings and on Food Buymanship, the latter including information on pricing, product development, packaging, etc.

In addition to the educational advertising and teaching aid development, Kraft provides instructional material to youth through the ABC's Of American Industry, a publication that reaches 2-½ million students through social studies classes. In this publication, advertisers take a letter of the alphabet and present a product. Students compete for cash prizes by developing projects and writing essays concerning any product advertised in ABC's and, in the process, are encouraged to gather as much information as possible about the product, either from libraries and advertisements or by writing to the company.

Kraft also has four educational films which are loaned free of charge to schools. These 16mm color films are "The World of Cheese," "The Romance of Cheese," "Fresh-Chilled TM Sunshine" (depicting the history, growing, selection and production of citrus products), and "Doing Great Things" (promoting nutrition awareness to youth).

The Consumer Service Department of Kraft handles a wide range of consumer mail on an individual basis, covering such areas as recipe inquiries, product complaints, requests for educational materials and assistance, nutritional and special dietary inquiries, etc. In responding to this consumer mail, the Consumer Service Department relies on Research and Development, the Quality Standards and Production Departments, and the Home Economics staff in the Kraft Kitchens.

Kraft advertising for many years has been service oriented, relying heavily on recipe and other use suggestions. Recipe materials are regularly made available to consumers including regular quarterly mailings for the TV recipes to consumers who have requested to be placed on the regular mailing list.

Contact for further information: N. E. Toft, Kraft Foods Division, Kraftco Corporation, 500 Peshtigo Chicag Illinois 60611.

Thomas J. Lipton, ıc.

One of the leading gro ery pr ucts manufacturers in t e Uni States, Lipton is known f r its fo product labels such as L pton T Lipton Soup, Wish-Bone Salad Dre ing, Good Humor Ice Cream, Pe nsylvania Dutch Noodles, Lip Main Dishes and from the Lipton Foods Division, Tabby and Th Little Kittens. Regional brands also processed in the 14 plant lo tions throughout the nation.

In the 100 year history of the co pany, Lipton has emphasized points of continuing responsibil customers; suppliers; employees; co munities; and shareholders—all whom are served by established op ating codes covering integrity in market, advertising, packaging other facets of its business. In pres ing products to the public, any re sentations made by Lipton must ways be capable of fulfillment in judgment of the consumer.

Following are basic precepts wh govern the method of presentatio any Lipton products.

Advertising.

1. Copy and graphics shall fa fully portray products as they ma prepared by consumers.

2. Absolute honesty is the hall of advertising representat ns and company insures that ts pro claims are always clear an l unexp cally presented in a m ner w may be readily understo d.

3. All advertising clain must b established factual justil ation quate to justify the clain in the of the consumer.

4. Advertising shall re esent p ucts on their merits an l shall falsely disparage product of com tors.

5. Advertising shall av id pri savings claims which are alse o leading or which Lipton is not to guarantee.

6. Legitimate inquiries from sumers concerning products sh responded to with relevant inf tion.

7. Lipton shall refund pur price or send additional produ any consumer who is dissatisfied

(Continued on pag

Consumer Affairs Leadership

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his purchase. This practice is intended to constitute a guarantee of product representations and company willingness to stand behind them.

Packaging

1. Package must faithfully represent the products they contain, and Lipton shall not employ techniques which misrepresent the product.

2. Recognizing the legitimate marketing function of packaging, packages must be functional as well. Lipton shall avoid packaging which misrepresents the contents, weight, value, or serving quantities contained therein.

3. In order to facilitate value comparisons by consumers, there shall be no unreasonable proliferation in package sizes and weights.

In addition to maintaining one of the largest inhouse research and development staffs in the industry, Lipton funds support fellowship grants to major universities doing work in the field of Nutrition. As a subsidiary of Unilever, Lipton also has access to food technology developed throughout the world.

Upgrading the nutritional content of food products has been a prime concern, as Lipton policy states that the consumer can expect good nutrition as part of product integrity. A continuing program of improving nutritional quality is a standard practice. All products are constantly surveyed for ingredient safety and upgraded as technical advances are made.

Lipton Kitchens

Lipton maintains a staff of home economists which prepares recipes for the homemaker. As a consumer service, nutrition information on products is provided to individual homemakers, as well as food service technicians and institutional dieticians.

Consumer requests are answered promptly by the Consumer Service Department which, if necessary, can call on experts in the fields of science or technology.

Contact for further information: Mr. W. Gardner Barker, President, Thomas J. Lipton, Inc., 800 Sylvan Avenue, Englewood Cliffs, New Jersey 07632.

Nisshin Cup Noodle

Advertising Age recently reported that in a tradition-conscious country like Japan, the last things that change are people's eating habits. But it can be done, as Nisshin Food Products has proved with its Cup Noodle.

Cup Noodle traces its development back to ramen, a traditional Japanese noodle, somewhat like spaghetti, but less dense. Ordinarily eaten in ramen shops, it became available in a dried instant form about 15 years ago. The originator of an oil-frying dehydration process, Momofuku Ando, now president of Nisshin, marketed his instant ramen so successfully that it is today about a $500,000,000 market in Japan, with Nisshin holding more than a 30% share. Some 3.2 billion packages by several manufacturers are sold annually.

Since virtually everyone in Japan eats instant ramen, and since the market could hardly be expected to grow much, Nisshin launched a totally new product, Cup Noodle, in 1971. This year, according to Koki Ando, director of the international department, Nisshin will sell one billion Cup Noodle units. Here is how it was done:

Cup Noodle is more than double the price of instant ramen. It does have the edge in ease of preparation. Instant ramen must be prepared at home. The stiff ramen are boiled in a pot of water for three minutes, emptied into a bowl and seasoning is added, before it is ready to be eaten. Cup Noodle, on the other hand, requires only that one pour boiling water into the container the preseasoned noodles come in. After three minutes, it is ready to be eaten from the container with an enclosed plastic fork. Purchased from a vending machine which contains hot water, it can be eaten anywhere.

There were three main marketing concerns, quite aside from problems of taste. Ramen was always eaten (1) from a bowl, (2) with chopsticks and (3) in a place where one could sit down.

Initially, distributors were so convinced that the new product couldn't sell because of these three departures, that they would not handle the product. This is one reason why Nisshin went to vending machines.

• Cup Noodle's special styrofoam cup is made by Nisshin-Dart 50/50 joint venture with Dart Industries of Osaka. This styrofoam cup has great retention qualities and has captured 60% of the cup market in Japan.

• Extensive test marketing was carried out for Cup Noodle, sometimes with odd results discovered. One group surveyed said it found the taste fairly good, despite the fact that members of the group had eaten Cup Noodle without waiting the required three minutes after adding boiling water. Determination of Nisshin management, and the careful analysis of various test marketing techniques saw the product through.

• Young people were the target. Cup Noodle was not presented as ramen in a paper cup, but as something new, modern and smart for young people. It was presented as a new pleasure, handy, convenient, quick and tasty, great for snacks any time, especially evenings when stores are closed.

TV commercials, combined with print campaigns, featured a dimpresentation of young people enjoying the product in all kinds of situations, generally, out of doors.

• Packaged instant ramen is now a household necessity in Japan. Just about everyone eats it and it is hard to imagine a household without a package or two on the cupboard shelf.

Cup Noodle achieved distribution throughout Japan by the spring of 1972. Today, everyone from truck drivers to busy account executives can be seen eating Cup Noodle for a quick lunch, a snack, while waiting for a train, stopping along the highway during a drive, or pausing during a game of golf.

Nisshin expects to sell 30,000,000 units of Cup Noodle on the West Coast of the United States this year. Plans are on the drawing boards for factories in Brazil. Mexico may be next on the list, and New York may be able to purchase Cup Noodle in 1976.

Next on the list, is a venture in Cup Rice. In Japan, $10 billion worth of rice is bought every year. Nisshin is aiming for a modest 10% of the market.

Starch In Nutrition

A reversal of the shift from starch to sugar in the U.S. diet over the past years would be desirable according to Dr. Alfred N. Meiss, president of Sidney M. Cantor Associates, Inc.

In an article entitled, "Starch in Nutrition," in **Agri/Industry News**, publication of the Corn Refiners Association, Inc., Dr. Meiss declares that although starch is "unquestionably the most important source of food energy on a world-wide basis, it follows both fat and sugar in the United States.

"Past and current nutrition and dietary research indicate that a reversal of the shift from starch to sugar would be desirable," he adds. "Given the impetus of higher sugar prices and burgeoning world food problem, such a shift may begin sooner rather than later," he predicts.

In his presentation, Dr. Meiss points out that in the United States the amount of starch consumed directly in food represents about 20% of the daily calorie intake of the average person, or about 5 oz. In the low income countries which subsist largely on direct consumption of grain, starch furnishes about 60 to 70% of the calories in the daily diet, or about 14 oz.

"The indirect consumption of starch in diets of the industrialized world has attained spectacular proportions in comparison with low income country diets," he adds. "Indirectly consumed starch refers to the starch contained in grain fed to meat animals, a matter of on-going public discussion in the face of the increasing world food shortage. By this measure, the average American indirectly consumes about three lbs of starch a day. This is more than three times as much starch as the person in a low income country who must depend on directly consumed grain starch for about two-thirds of his total dietary calories."

Dr. Meiss emphasizes that in food cultures based primarily on direct consumption of grain products or root crops there is an established stability in the proportion of starch among the sources of calories in the diet.

"The relationship," he notes, "remains fairly constant over long periods. . . . In the industrialized countries, however, starch plays a highly dynamic role in food economy.

Steady decline for carbohydrate

"In the United States there has been a steady decline in the carbohydrate content of the national diet since before World War I and concurrently an offsetting rise in fat consumption. While total carbohydrate intake has decreased steadily, the sugar content of the national food supply has increased correspondingly, with the result that per capita starch intake has been cut in half. In 1910 the food supply contained more than twice as much starch as sugars; now it contains more sugar than starch."

Maintaining that the shift from starch to sugar consumption is only part of the story, Dr. Meiss adds while the shift was taking place, "direct consumer use of refined sugar decreased to less than half of the earlier level, while manufacturing use of sugar for foods and beverages increased more than threefold.

"Accompanying the transfer of sugar use to the food industry, the manufacture of sweeteners from starch entered the scene and has developed strongly so that it is now projected that starch-derived sweeteners, beet sugar and cane sugar may soon provide equal shares of our national sweetener supply.

"Medical and nutrition research of the past few years has suggested that our consumption of sugar may be excessive, and that this possible excessive consumption, primarily in the form of beverages and manufactured food products, has produced a sort of 'affluent' malnutrition in some segments of the population. Thus, hitherto unappreciated virtues of dietary starch—and complex carbohydrates generally, as opposed to simple sugars—are becoming widely recognized and a reversal of the shift from starch to sugar in the American diet may be getting under way. Although the recent increases in the price of sugar are undoubtedly having some influence, medical and nutrition influences, if present trends continue, could have a more telling and longer lasting effect."

Dr. Meiss points out that starch is a polymer or a multiply-linked chemical combination or chain of the simple sugar, glucose (dextrose).

Starch polymer of glucose

"Although in the course of evolution, human physiology has adapted to use of a great variety of sugars and other complex carbohydrates, the adaption to starch is so nearly perfect that it might be imagined the result of a grand design," he comments. "Starch, because it is a polymer of glucose, is a source of free glucose which has a unique biochemical function. It is the form in which food energy is transported to all cells and tissues in the body via the bloodstream. . . . A special group of enzymes (in the body) transforms other simple sugars such as sucrose (cane and beet sugar) into glucose and provides a mechanism by which they may enter the useful energy supply of the living body. When sucrose, which is a compound of glucose and fructose (levulose), enters into metabolism, half of it--the fructose part—must be transformed into glucose before it can function as either the storage or transport form of food energy. Except for free glucose, starch is the carbohydrate that is biochemically most efficient and makes the least demands on the metabolic process. So there appears to be good reason why starch should be the most abundant single substance in the food we eat."

He also points out that the cereal grains—rice, wheat and corn, in that order—both directly and in processed forms are the richest and most abundant sources of dietary starch.

"Relatively few foods are important contributors of the starch that is consumed directly in the American diet," he points out. "The principal items together with a rough approximation of percentages of the total are: wheat products, 67%; potatoes, 17%; corn derived products, 9%; rice, 4%; starchy legumes, including peas, lima beans and lentils, 2%, and winter squash and sweet potatoes, 1%. Wheat and corn flours and starches are used as minor ingredients in a great variety of manufactured foods, but no single product in this category is an important contributor to the total starch content of the diet."

Attack on weight point of view

"There is no factual basis for such a point of view," Dr. Meiss maintains. "The idea that certain foods are 'fattening, is false except for whatever effect may result from the higher calorie density of dietary fat (99 calories per gram than of protein and carbohydrate (4 calories per gram).

"The potential 'fattening' effect associated with the higher calorie content of fatty foods is largely offset by their rapid and prolonged satiety effect they produce. The difference in satiety effect between high fat and high carbohydrate food results in much less food, the former being consumed and a tendency toward equalizing the number of calories ingested when the onset of appetite satisfaction has been reached. It is unfortunate that many trained die-

ians and nutritionists—who should know better—fall into the trap of identifying certain foods as fattening.

"The scientific evidence is incontrovertible. Any person's biochemical and metabolic characteristics place him in a broad range that may be considered normal will remain at near constant weight as long as his energy output—basal metabolism plus energy expended in activities—is in balance with energy intake from food.

"Variations in composition of the diet, except perhaps for short term influences of drastic changes in diet composition, appear to have no significant effect on the general principle of energy balance. . . ."

Heart disease considered

He points out that in the "ever-muddy, ever-controversial field of nutrition and cardiovascular disease, a high intake of sucrose has been associated with the incidence of coronary artery disease.

"It has also been shown that a significant number of men are susceptible to elevated levels of fat in the blood, often associated with atherosclerosis on diets high in sucrose.

"In both situations, a shift of dietary carbohydrate from sucrose to starch has been recommended. Notwithstanding a continuing series of scientific controversies in this field, there seems little doubt that an increasing number of persons will be found to benefit from a dietary shift from sugar to starch.

"Some research findings in which high sucrose intake is associated with cardiovascular disease identify the fructose half of the sugar molecule, not the glucose half, with the apparent adverse effects. Some research in laboratory animals has also drawn attention to possible difference in metabolic effects from feeding free fructose as following which was omitted: Distinguished from combined fructose in sucrose. There is evidence, although not conclusive, that suggests that free fructose differs less from the adverse effects."

Dr. Meiss also points out that snack foods, "high in fat and sugar," are rapidly becoming a mainstay of the diets of many school children and adolescents and are a cause celebre among nutrition educators, school dieticians and consumers dedicated to food reform.

"These people have a point," he adds. "Like anyone else, the victims of affluent limit their food intake according to caloric needs—their physiology sees to that. But so many of the calories are of the fat and sugar kind that nutritional status can be adversely affected. If the current reform movement succeeds in bringing about a significant shift in food behavior among these young people, cereal foods, fruits, vegetables, eggs and milk that replace the unbalanced foods will not only replace their calories, but will substantially increase intakes of protein, vitamins and minerals. They will also bring about a significant exchange of sugars for starch, which would be beneficial.

"As with the 'affluent malnutrition' situation, solution of this problem can result in a significant increase in starch consumption with a concurrent decrease in sweetener use. Fiber deficiency in the American diet is rapidly assuming the proportions of a major food and nutrition problem of the times. Growing evidence links fiber deficiency to a number of diseases of the colon, including diverticulitis and apendicitis, to chronic constipation and sales to obesity, dental caries and periodontal disease.

"The deficiency of dietary fiber can only be attributed to changes in the food supply, that is, the removal of fiber in commodity processing and food manufacture. Formerly, these foods entered the household in crude, coarse form and were prepared by home methods that left much of the fiber in place. The decrease in cereal consumption from nearly 300 lbs per capita per year in 1910 to only 125 lbs in 1973 is the greatest single change that has occurred.

"Restoration of sufficient fiber to the national diet will, at the outset at least, require increased consumption of vegetables and fruits, and a significant shift back to whole grain products from low extraction flour. A substantial decrease in sugar use and rise in starch intake will almost certainly accompany the dietary changes. Sooner or later, research and manufacturing technology will close the gap, and produce prefabricated foods that have the requisite kinds and quantities of dietary fiber constituents in them. But, even so, there is a good chance that the new foods will contain less sugar and much starch."

Dietetic Group Warns Against Fad Dieting

A campaign to warn consumers of the dangers of some "natural" foods and "fad" diets has been launched by the American Dietetic Association.

ADA will publicize its views on subjects such as: The nutrition value of whole-grain cereals over "natural" cereals; the relationship of cholesterol and heart disease, and the falacy of "enriching" snack foods for a complete diet.

Clara Zempel, ADA executive director, elaborated on the subjects, saying ADA is in agreement with the American Heart Association on the cholesterol question, but ADA stresses that individuals consult their physicians for proper answers. AHA recommends limited egg use, and consumption of low-fat milk.

She noted that snack foods cannot be "enriched" because there is scant knowledge of trace elements that may be missing from fortified snack foods.

While stating nutrition labeling is potentially a valuable tool for consumers, Mrs. Dorothea Turner, who edits the ADA journal, said more education is needed before nutrition information can be useful. She added that the entire nutrition community will help educate the public on nutrition labeling.

ADA officials also cited the following diets as potential health hazards: The meat and water diet; the Zen Macrobiotic diet; massive vitamin doses without a physician's direction, and the vinegar-kelp-lethicin, B6 diet.

ADA called "false" such claims as: Organic fertilizer produces foods of superior nutrition value; foods are poisoned by chemical additives and pesticides; specific foods have miraculous healing powers, and daily vitamin and mineral supplements are needed because current food supplies are nutritionally deficient.

More Acreage

More acreage was sown to durum this spring than expected. The North Dakota State Wheat Commission says durum plantings can be as much as 15% over a year ago, bringing it up to a record 3,900,000 to 4,100,000 acres.

In Canada some 3,800,000 acres has been planted, up 28% over last year.

Pasta Partners.

Peavey and pasta makers. Working together . . . partners in profit. Milling of Semolina and Durum flour isn't a sideline with Peavey. We're more in the total people feeding process than most suppliers to the pasta industries . . . from field to table. Peavey is a leading supplier in both quality products and production capacity for service to customers' total needs. We've been at it over 100 years. And we believe our future growth depends on helping our pasta manufacturers grow.

In fact, pasta is a way of life with many of our Peavey people. Everything we do has one objective. To bring you the finest Durum products. With rich golden color. The color of quality King Midas Semolina and Durum flour.

That's why we begin with the North Country's finest Durum wheat. And mill it facilities designed specifically for the production of emolina and Durum flour.

We make pasta in miniature press and dryer operations. nd we check the pasta for color and constancy. We also ork with our customers on new product innovations . . . eative shapes . . . with this miniature equipment, nfidentially, of course.

We even develop recipes using pasta. Like the dishes at the left. Recipes are available to you with no obligation. Just write to Peavey. Anything that helps make pasta more appealing to the housewife is good for the pasta makers. And good for Peavey.

Today, Peavey is the first supplier of Durum products with a total range of grades and granulations. To match your needs. Plus people who look upon themselves as your pasta partner.

PV PEAVEY COMPANY

Sales Offices

A Primer On Vitamins

by G. Edward Damon from FDA Consumer

Vitamins are organic compounds which are necessary in small amounts in the diet for the normal growth and maintenance of life of animals, including man.

They do not provide energy, nor do they construct or build any part of the body. They are needed for transforming foods into energy and body maintenance. There are 15 or more of them, and if any is missing, a deficiency disease become apparent.

Vitamins are alike because they are made of the same elements—carbon, hydrogen, oxygen, and sometimes nitrogen. (Vitamin B_{12} contains cobalt, an essential mineral.) They are different because their elements are arranged in different combinations, and each vitamin performs one or more exclusive functions in the body.

Vitamins are measured in extremely small amounts, because it takes very little to be effective in generating the needed chemical reactions. Some vitamins are described in I. U.'s—International Units—which means a given amount of activity that can be measured. Others are expressed by weight only, in milligrams or micrograms.

Getting enough vitamins is essential to life. But the body has no use for excess vitamins. Many people believe, however, in insurance. So it is easy to understand why they, fearful of not eating a well-balanced diet, take extra vitamins.

So-called average or normal eaters probably never need supplemental vitamins, although many think they do. People eating known deficient diets require them, as do those recovering from a specific illness or vitamin deficiencies that have been identified by a physician.

Every adult consumer interested in nutrition and good health should become familiar with the initials U.S. RDA. "United States Recommended Daily Allowances" were established by FDA for use in nutrients from food that a person should eat every day to stay healthy.

Vitamin A - Retinol

Vitamin A is one of the oil soluble vitamins (A, D, E, and K), and is stored principally in the liver.

This vitamin is necessary for new cell growth and healthy tissues and is essential for vision in dim light.

Vitamin A is found most abundantly in liver, fortified margarine, eggs, butter, and whole milk. Green and yellow vegetables and yellow fruits are the best sources of carotene, which the body converts to vitamin A.

Vitamin B_1 - Thiamine

This vitamin is water soluble as are all in the B group. Thiamine is required for normal digestion. It is necessary for growth, fertility, and lactation, and the normal functioning of nerve tissue.

Vitamin B_1 deficiency causes beriberi, a dysfunctioning of the nervous system. Other deficiency problems are loss of appetite, body swelling, growth retardation, cardiac problems, nausea, vomiting, spastic colon, and pain in the calf and thigh muscles.

Thiamine is found abundantly in pork, beans, peas, nuts and in enriched and wholegrain breads and cereals.

Vitamin B_2 - Riboflavin

Riboflavin helps the body to obtain energy from carbohydrates and protein substances. A deficiency causes lip sores and cracks, as well as dimness of vision. This vitamin is found abundantly in leafy vegetables, enriched and whole-grain bread, liver, cheese, lean meat, milk and eggs.

Niacin

This vitamin is necessary for the healthy condition of all tissue cells. A niacin deficiency causes pellagra, which was once the most common deficiency disease next to rickets. Pellagra is characterized by rough skin, mouth sores, diarrhea, and mental disorders.

Niacin is one of the most stable of the vitamins, the most easily obtainable, and the cheapest.

The most abundant natural sources are liver, lean meat, peas, beans, wholegrain cereal products, and fish.

Pantothenic Acid

Pantothenic acid is needed to support a variety of body functions, including proper growth and maintenance of the body.

Pantothenic acid is found abundantly in liver, eggs, white potatoes, sweet potatoes, peas and peanuts.

Folic Acid (folacin)

Folic acid helps to manufacture red blood cells and is essential in normal metabolism which is, basically, the converting of food to energy. A deficiency causes a type of anemia.

The most abundant sources are liver, navy beans, and dark green leafy vegetables. Other good sources are nuts, fresh oranges, and whole wheat products.

Vitamin B_6

(Pyridoxine-Pyridoxal-Pyridoxamine)

This vitamin is involved mostly in the utilization of protein. As with other vitamins, B_6 is essential for the proper growth and maintenance of body functions.

Pyridoxine is found abundantly in liver, whole-grain cereals, potatoes, red meat, green vegetables, and yellow corn.

Vitamin B_{12} - Cyanocobalamin

Vitamin B_{12} is necessary for the normal development of red blood cells, and the functioning of all cells, particularly in the bone marrow, nervous system, and intestines.

Abundant sources are organ meats, lean meats, fish, milk and shellfish. B_{12} is not present to any measurable degree in plants, which indicates that strict vegetarians should supplement their diets with this vitamin.

Biotin

Biotin is the sole descriptive term for this vitamin which is actually a member of the B complex. It is important in the metabolism of carbohydrates, proteins and fats.

As with many vitamins, deficiency is very rare.

Abundant sources include eggs, milk and meat.

Vitamin C - Ascorbic Acid

This least stable of the vitamins promotes growth and tissue repair, including the healing of wounds. It aids

A Primer on Vitamins

(Continued from page 24)

tooth formation, bone formation, and repair. When used as a food additive, vitamin C acts as a preservative.

Abundant sources are citrus and tomato juices, strawberries, currants, and green vegetables such as lettuce, cabbage, broccoli, kale, collards, mustard and turnip greens, and potatoes. You can get all the vitamin C your body can use, for example, by drinking 5 or 6 ounces of orange juice or tomato juice a day.

Vitamin D - Calciferol

Vitamin D aids in the absorption of calcium and phosphorus in bone formation.

Abundant sources are canned fish such as herring, salmon and tuna; egg yolk, and vitamin D fortified milk. People who spend part of their time in the sun need no other sources of vitamin D, since it is formed in the skin by the sun's ultraviolet rays. Foods which are fortified with vitamin D are intended mainly for infants and the elderly who lack outdoor exposure to sunlight. The daily dietary requirement of vitamin D is very small, and any excess is stored in the body.

Vitamin K

There are several scientific names for vitamin K, which is essential for clotting of the blood. One type is found naturally in food. Another is made in the intestinal tract, and a third is made synthetically.

A deficiency causes hemorrhage and liver injury. Vitamin K is found in spinach, lettuce, kale, cabbage, cauliflower, liver and egg yolk.

Vitamin E - The Tocopherols

Vitamin E in humans acts as an antioxidant which helps to prevent oxygen from destroying other substances. In other words, vitamin E is a preservative, protecting the efficiency of other compounds such as vitamin A.

Abundant sources are vegetable oils, beans, eggs, whole grains, liver, fruits and vegetables.

Vitamin misconceptions

Science, as such, is a mystery to most of us; we view scientific knowledge with awe, and we are quite justified, considering the scientific achievements of our age. Misconceptions about vitamins and their proper functions are understandable, but no primer would be complete without clearing up some of these misconceptions:

"Synthetic" vitamins manufactured in the laboratory are identical to the natural vitamins found in foods. The body cannot tell the difference and gets the same benefits from either source. Statements to the effect that "Nature cannot be imitated" and "Natural vitamins have the essence of life" are without meaning.

• Vitamins will not provide extra pep, vitality beyond normal expectations, or an unusual level of well-being.

• Excess vitamins are a complete waste, both in money and effect.

• Anyone who eats "all over the store", meaning a reasonably varied diet, should normally never need supplemental vitamins. Vitamin sources are varied and abundant and have been for many centuries; if they weren't, our present population would not be here.

Supplemental Vitamins

Even though the widely seen and identified vitamin deficiency diseases of 30 years ago have all but disappeared, the American consumer is approached from all sides with misinformation about the almost-universal "need" for supplemental vitamins.

Is there really a need? Each person can answer this only after learning what vitamins do and do not do, plus their presence in foods.

If some vitamins have additional value in preventing or treating conditions of ill health, these values will be discovered by professionally trained and dedicated clinicians. And they will then become known to the public.

Computerized Meals

Meals served in the three dining halls on the Waltham campus of Brandeis University are being prepared with a distinctive new ingredient heretofore not used by Brandeis' culinary specialists. . . . an electronic computer.

The newly adopted program employs a computer assisted production control plan designed by Trans-Tech, a Kansas City, Mo., firm—t provid nutrient analysis of each m al, men orize recipes, outline reorde ng of i gredients, maintain price ind xing a cut food costs by reducing aste.

Dining hall managers us the co puter as a new managemen tool. A dining rooms are operating nder t program as of this month.

J. Lawrence Jeffrey, direc or of t University's Auxiliary Services, sa Brandeis is the second school in t nation to subscribe to the comput assisted production control progra

"Ohio State has been using it f about a year," reported Mr. Jeffre "and they have been extremely co plimentary about performance and re sults. Their overall food operation h improved, and there's been a su stantial savings in food and costs."

Cross-Reference System

Essentially, the computer acts as highspeed, sophisticated cross-ref ence system offering kitchen data a large scale. Drawing on its memo facility, which contains a permane record of recipes and ingredients us at Brandeis, the thinking hardwa offers up a printout sheet in respo to the needs of a specific menu whether for a single meal or a we long food service.

Instructions for preparing and se ing each recipe, such as ingredie quality, cooking times, temperatu and even proper utensils, are includ on the sheet. Additionally, itemi nutritive values and cost per port are outlined.

"Another advantage to this p gram," explained Mr. Jeffrey, "is computer's capability to provide with price indexes. We'll be able tell exactly what effect price increa have had on menus by going back the data base of a month or a ye ago. If, in two years, we want to k what it cost us to serve a given m in 1975, we can call for that infor tion to compare prices."

Each menu has its own print designated for either Kutz Hall, S man Student Center or the Un Student Center; the three student ing areas on the campus.

Ms. Patricia Luoto, manager quality and cost control in food vices, will prepare five week cy menus in concert with unit manag and dietitians.

From entrees to desserts, each dining hall will benefit from the flexibility of the computer assisted menu planning.

Printout Menus

Printout menus, each listing breakfast, lunch and dinner costs and nutritional analysis, will be posted daily in the dining halls.

A separate battery of printouts will detail cost diagnosis, recipe usage analysis, stock ordering, and purchase costs for respective food department personnel.

While Brandeis and Ohio State are the only two educational institutions using the program, scores of hospitals across the country have employed it for several years. Annual food cost savings report by the hospitals have ranged as high as 20 per cent.

"At present we are taking a conservative approach to the cut in costs at Brandeis," said Mr. Jeffrey, "and we expect a seven per cent cost savings the first year. This will amount to some $50,000."

Trans-Tech will charge the University $20,000 annually. If the projections remain true—it is felt they will exceed them—the University will realize a net savings of $30,000 yearly.

The economy in time and work, using the system, is impressive. Printouts supplying data on menus, cost, nutrition and supply reorder for one week would take three Brandeis employees eight weeks to compute.

Canadian Efforts

On June 21, 225 home economists attending their national convention in Montreal, were entertained at a pasta luncheon by the Canadian Pasta Manufacturers Association. A leaflet titled "Pasta Fun" was presented to each of the ladies and a copy has been sent to a specialized list of food editors and consumer commentators.

Pasta points are given as follows:

The finest quality pasta is made from Durum wheat which gives a firm tenderness without being sticky or starchy. And the cooking water is never milky with starch residue.

Pasta is nutritious having the B vitamins, and when combined with small amounts of cheese, meat, fish or poultry, it is a complete protein.

• Pasta has a low fat content, of vegetable origin, which is, therefore, unsaturated.

• Allow approximately 3 ounces uncooked pasta per person when using for a main course. For a side dish, use 1 ounce per person.

• To avoid sticky overcooked pasta buy quality products and cook according to package instructions. For every pound of pasta use 4 quarts of water and 2 tablespoons salt. Bring the water to a full boil and slip the pasta into the water. Bring the water back to the boil. Don't cover and stir frequently.

• One tablespoon of cooking oil added to the cooking water prevents the mixture from boiling over and the pasta from sticking together.

• There are more than sixty different shapes of pasta, and most of them are interchangeable in recipes.

• If you've cooked too much pasta to use at one meal, freeze it. Cool and pack into plastic bags and seal. Within a month reheat by emptying the frozen contents into rapidly boiling water. Stir, drain and serve with sauce.

•For a delicate and rich flavour toss cooked pasta with unsweetened butter before serving or saucing. Either melt the butter while the pasta cooks, or shave the hard butter into the cooked pasta so that it is absorbed quickly.

Recipes are given for the following:

Clam Sauce
Spaghetti Sauce with Meat
Broad Noodles Alfredo
Hamburger Stroganoff
Hearty Soup
Chicken Livers
Spaghetti with Tuna
Macaroni Salad
Noodles Tetrazzini
Salmon and Shells Au Gratin
Lasagna with Basic Tomato Sauce
Chicken Salad
Macaroni and Cheese

Fewer Potatoes

Maine potato farmers planted a bit more acreage than they had planned.

Because last year's big fall potato crop drove prices down, Maine farmers originally intended to cut back their acreage this year. The government said in March that they intended to plant 128,000 acres, nearly 11% less than the 142,000 acres planted in 1974.

"But the picture has changed since then," says Philip Christie, a sales manager for the Maine Potato Growers Inc. Farmers in the state's largest potato-growing area, Aroostook County, "generally have planted about 2,000 to 3,000 more acres than they said in March," he says.

"There just aren't enough table-stock potato supplies to meet demand right now, and some Maine farmers are betting it'll still be that way when the fall crop comes in," Mr. Christie explains. He says, too, that Maine farmers have been selling futures contracts as a price hedge for their fall crop. "They're riding on the strength of cash prices, which also has helped drive futures prices higher," Mr. Christie says.

Cash potato prices have been climbing because farmers in most other potato-growing states also cut back their acreage this year. Moreover, yields in some states have fallen because of bad weather. Total spring potato production is expected to fall 27% to 17.6 million 100-pound sacks from 24.3 million in 1974. The main reason is that cold weather reduced the California harvest about 35%.

Planned acreage for the summer crop is about 11% lower than last year. The summer-crop harvest is just beginning, and "it looks like rainy and subsequently dry growing conditions are likely to cut into yields," says William Mapp, a marketing agent for the Virginia agriculture department.

Although the Maine crop can yield as much as 325 hundredweight per acre, "the average is around 260 to 275 an acre," Mr. Christie says. So, it appears that at best the harvest this year will be sharply below the 36.4 million hundredweight harvested last year and more comparable to the 33.2 million harvested in 1972.

Tax Bite

The Congressional Joint Economic Committee reported the other day that the biggest price increase in the current inflation has come in the price of government. While food rose 11.9% and transportation rose 14.3%, the income taxes paid by a middle-income family increased 26.5%.

Census Up-Date

The good news of the 1972 Census of Manufacturers issued by the Bureau of the Census of the Department of Commerce is ancient history as it comes out three years later.

The final revisions have just been released and show that the pasta industry in 1972 had a production of 1,754,500,000 pounds, up 41% over the 1967 output of 1,245,400,000 pounds. That five-year increase is one of the sharpest for any flour-based food. That a reversal occurred from 1973 to 1974 is indicated by the fact that production of semolina and durum flour in 1974 was off 4,572,000 cwts.

The market for macaroni products dropped last year in response to continued firmness in prices and sharp declines in competitive foods. For example, the per capita consumption of potatoes in 1974 increased to 117.5 pounds, up one pound from 1973, while the per capita use of flour for all uses dropped 3 pounds to a historic low of 106 pounds.

INFORMATION ON THE MACARONI INDUSTRY is furnished in the U.S. Dept. of Commerce bulletin MC72(P)-201-5, Industry Series, 1972 **Census of Manufacturers,** for Macaroni and Spaghetti (SIC Code 2094). In the report, the Macaroni, Spaghetti, Vermicelli and Noodles Industry includes those establishments primarily engaged in manufacturing dry macaroni, spaghetti, vermicelli and noodles. Establishments primarily engaged in manufacturing canned macaroni, spaghetti, etc. are classified in another industry code. Here are highlights of the report:

1972 Statistics by Geographic Areas

	New England	Middle Atlantic	East No. Central	West No. Central	South	West	1972 U.S. Total	1967 U.S. Total	1963 U.S. Total
Establishments:									
Total (number)	14	50	30	14	21	65	194	205	221
With 20 employees or more (number)	3	21	11	8	7	12	64	75	70
All Employees:									
Number (1,000)	0.5	2.7	1.3	0.9	0.6	1.2	7.3	7.5	7.
Payroll (million dollars)	4.2	22.7	8.6	8.6	4.4	10.8	59.4	43.2	33.
Production Workers:									
Number (1,000)	0.3	1.9	1.0	0.5	0.4	0.8	5.1	5.4	5.
Man-hours (millions)	0.8	4.0	2.0	1.1	0.9	1.8	10.8	11.0	10.
Wages (million dollars)	1.9	13.0	6.4	3.7	2.5	6.2	34.2	25.4	21.
Value added by manufacture (million dollars)	8.9	54.4	34.0	20.5	10.8	27.7	156.3	119.7	96.
Cost of materials (million dollars)	16.8	80.4	30.5	27.5	9.5	30.3	195.2	148.6	136.
Value of shipments (million dollars) (1)	25.5	134.6	63.8	47.8	20.3	57.7	349.6	266.0	232.
Capital expenditures, new (million dollars)	1.3	2.5	1.3	0.4	0.6	0.9	7.1	5.2	4.
End-of-year inventories (million dollars)							27.3	20.9	14.
Specialization ratio (percent) (2)							99	97	96
Coverage ratio (percent) (3)							91	98	94

Explanation of Terms Used in Above Chart

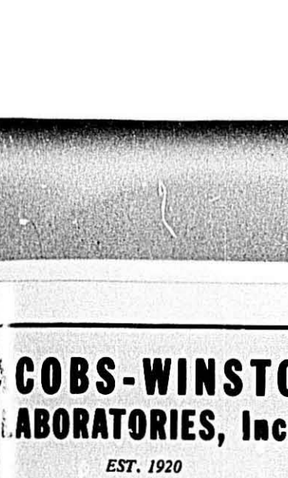
(1) **Value of shipments**—"The received or receivable net selling values of all products shipped, both primary and secondary, as well as all miscellaneous receipts such as receipts for contract work performed for others, installation and repair, sales of scrap, and sale of products bought and resold without further processing."

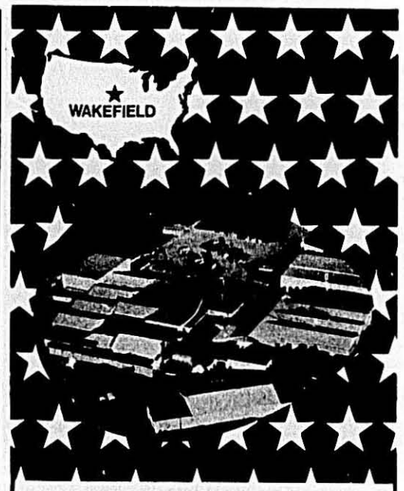
(2) **Specialization ratio (percent)**—Value of shipments of primary products divided by total value of shipments.

(3) **Coverage ratio (percent)**—Total value of macaroni products shipped by plants classified in Industry 2098 divided by total value of macaroni and spaghetti products shipped by all producers of the products including those plants classified in other industries.

TOTAL MACARONI AND SPAGHETTI SHIPMENTS
Includes figures both from the plants classified in Industry 2098 and from plants classified in other industries and shipping these products as "secondary products".

Year	Quantity (million lbs.)	Value (million dollars)
1972	1,754.5	349.6
1967	1,245.4	248.3
1963	1,207.5	215.9





Putting It In Perspective

If all the world were reduced to a town of 1,000 people, in this town would be 60 Americans. The remainder of the world would be represented by the 940 other persons.

The 60 Americans would have half of the income of the entire town. The 940 others would share the remainder of the town's income.

Three hundred and thirty people in the town would be classified as Christians. Six hundred and seventy would not.

At least 80 townspeople would be practicing Communists. That's more than our whole nation. Seventy others would be under Communist domination.

White people would total 303, while non-white would be nearly 700.

The 60 Americans would have a life expectancy of 70 years. The 940 others could not expect to live more than 40 years.

The 60 Americans would have 15 times as many possessions as the average of all the rest of people in the village.

The 60 Americans would produce 16% of the total town's food supply. Although they eat 62% above the maximum daily food requirement, they would eat most of what they grew, or store it for the future at enormous cost.

Since most of the 940 non-Americans would be hungry most of the time it could lead to some ill feelings toward the 60 Americans, who would appear to be enormously rich and fed to the point of sheer disbelief by a great majority of the other townsfolk.

Of the 940 non-Americans, 300 would have malaria, 85 would have schistosmiasis, 3 would have leprosy, 45 will die this year from malaria, cholera, typhus and other infectious diseases. One hundred and fifty-six will die from starvation and malnutrition. None of the 60 Americans will ever get these diseases and will probably never worry about them.

The 60 Americans would each spend $87 a year on liquor and tobacco, but less than $20 for the drugs needed for the finest medical care in the world and would be loudly proclaiming that medicine costs too much. We are a very interesting people.

Eating Habits Change

Joseph M. Winski, staff reporter of the Wall Street Journal, recently wrote: "Eating habits of a nation develop gradually and change slowly, except in extraordinary times. These seem to be such times."

Food consumption patterns in the U.S. are changing more than at any other time since the Great Depression. This time the change may be more lasting, and the implications may extend beyond the food industry.

For years the industry considered it noteworthy if the annual volume of a particular food item rose or fell more than 5%. A 5% change these days is likely to be considered evidence of outstanding stability.

After years of looking for the quick and easy way, Americans are returning to the basics in their food consumption.

Donald S. Perkins, Chairman of Jewel Companies, a Chicago-based supermarket chain, sums it up this way: "Today's consumers are willing to do it themselves."

Doing it themselves involves more than passing up all the heat-and-eat goodies stocked in U.S. stores. It means, for example, that home baking is way up. Many other types of cooking "from scratch" are also increasing.

More Brown Bags

Other trends include more brown-bagging of lunches, more home gardening and canning, and more storing of food in anticipation of shortages or higher prices. One survey shows that the weekly steak is no longer a priority item among working class families, and that the casserole appears entrenched as the All-American meal. Inside the store itself, shoppers are relying on lists of what they truly need and showing a remarkable new ability to resist impulse buying.

All this means surprisingly large increases or decreases in volume for a large number of food products. Among the significant losers are the so-called convenience foods. According to one estimate, unit sales of canned meat, fish and poultry products are down anywhere from 25% to 60% on the item.

Similarly, frozen foods, whose volume has increased steadily for years, are believed to be do n sharp ly. Other notable losers are believe to be cake mixes and so e othe baking mixes, canned fruits nd veg tables, desserts and re ly-to-e snacks of all kinds.

Why the change? The differe economic times are certai y a l part of the explanation, analy agree. Food prices rose by close 30% in 1973-74 and were still climb ing when millions of Americans we being thrown out of work. Th forced the consumer to economiz and he found that delaying or can celling purchases of new cars or tel vision sets wasn't enough. The a finally fell on the family food budge Many food industry officials say buy ing will return to normal when th economy does.

But a number of consumer-b havior analysts suggest that the eco omy is only part of the story. Th say that population trends, the energ shortage and world hunger are a playing a role and that America's foo buying habits might not "return t normal" for a long, long time.

Survey Results

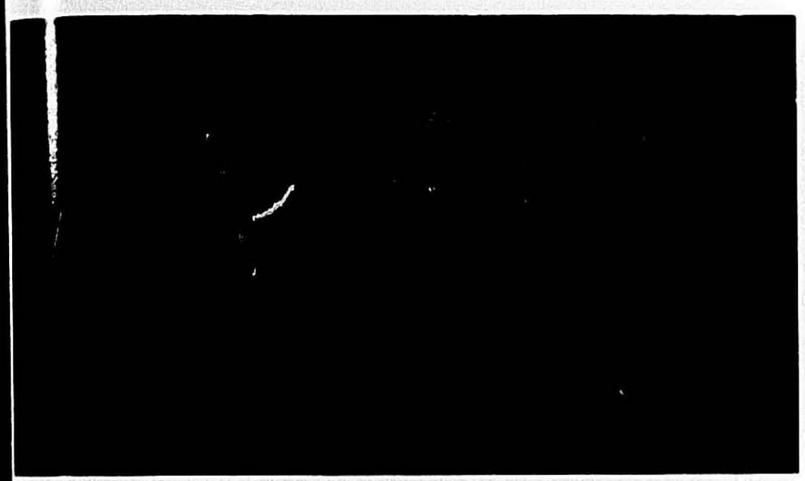
This view was borne out in a lat 1974 survey by Better Homes & Gar dens magazine. They reported tha 63% of the respondents agreed wit the proposition that they were mak ing "important and lasting changes in the way they shop and the food they eat regularly.

40% of the people who answere the Better Homes & Gard ns ques tionnaire were working w ves. On woman wrote that even th ough sh works full-time, she is coo ing "ba way I cooked when we ad thre children and I didn't wo k—mor casseroles, more soups, mo e scrat foods."

A New Flour Mill in Kuwa

Buhler Brothers Diagra i repor a new Buhler mill recently put int operation for the largest flo r milli concern in the Middle East, Kuwa Flour Mills.

In addition to surpassing the d signed capacity of 180 tons per da the product quality met high stan ards. The mill produces both bake flour and durum products for ma roni production.



Energy and Economics

by Alvin W. Vogtle, Jr., President, The Southern Company

Perhaps the most crucial challenge we face, if we are going to achieve real recovery in economic activity and corporate profits, is to find the investment capital that will be necessary.

If the combined devils of inflation, recession, and lack of available capital are being felt by all of American business, they are being felt even more strongly by the electric utilities. I say this for two reasons. First, in 1974, the electric utility industry saw maintenance and operating costs up by more than 40 percent. The price of coal rose nearly 100 percent. These price jumps compare to an average inflation rate in consumer goods of 12 percent. With this enormous rise in the cost of fuel and construction materials alone, profits are being squeezed dry just when they are desperately needed for reinvestment.

At the same time, because inflation has hit the consumer so hard, it has not been politically advantageous for elected regulators to react as positively as necessary to requests for price increases. This has had the effect of lowering the profit status of electric utilities even further, making utility stock even less attractive to investors.

Electric Utilities: Capital-Intensive

The second reason that the electric utilities have been sorely affected is that they are so highly capital-intensive. They are doubly affected by rising interest rates and the waning confidence of investors. Persistent inflationary expectations have forced investors to demand even higher returns on their investments, which, of course, has been reflected in the record-high interest rates on recent debt issues.

The electric utility industry is expected to require close to $400 billion of capital from 1971 to 1985. At the same time that utilities face such an unprecedented demand for capital, however, the supply of capital seems to be actually dwindling; and electric utility common stocks have fallen to price levels not seen since the late 1950's.

This pattern is forcing electric utilities on the whole to curtail construction programs drastically—at a time when construction programs could not be more important. I say this even at a time when restriction of industrial growth due to the tight money market and strong consumer resistance to utility price increases have raised serious questions as to whether steady growth of the electric industry is really necessary. Some feel that we could do without all this expansion. Growth is no longer spoken of in glowing terms.

Energy growth is inevitable. There's no way around the fact that the world population and energy consumption will continue to go up and reserves of presently known fossil fuels will go down. Reducing energy growth may buy a little extra time, but our finite resources are going to be used up eventually. Even if we cut the current growth rate in half, we could only extend the supply of oil 20 years. We'd still run out of fossil fuels other than coal by the end of the century.

Energy-Based Economy

We have an energy-based economy, and it will remain an energy-based economy. And, as the underdeveloped countries of the world develop, they too will become energy-based economies. We might be able to control energy-use patterns through wise use planning, but we simply can't slash energy growth from the picture without drastically altering economies.

What we can do—and what we must do—is to change the makeup of the energy base. We can shift our dependence from oil and gas to an energy base of more abundant fuels—namely coal and uranium—and other energy sources to replace these when they eventually run out. The shift that I'm talking about is inevitable—it's a shift to an electric energy base.

Shift to Electric Energy Base

Recent Federal Power Commission statistics show that if we use our coal and uranium to reduce the demands on oil and natural gas, electricity growth would more than likely continue at a seven-to eight-percent rate for the next twenty years—even if we reduce overall energy growth rate to two percent.

Conservation is important to our energy needs. But conservation does not so much imply less use as it implies wise use of energy. There are many areas where energy can be saved through cost-effective, energy efficient methods without sacrificing the end result.

Let me give you an example. The industrial sector of our economy uses about 40 percent of our total energy. "Total energy" includes, of course, gas, and all of the sources that we use to generate electricity, including coal and nuclear fuel. About one fourth of industrial usage is spent on space heating. The majority of the remainder goes for direct heat and process steam, with a small portion being used for direct uses such as lighting. With sound engineering and energy conscious planning, as much as 15 percent of this energy can be saved. It can be saved through elimination of leaks, proper insulation, improved boiler efficiencies, and more efficient transfer of heat. Similar practices applied to residential space heating in the same manner can keep energy from slipping through our fingers.

Transportation—another 25 percent of total energy consumption—offers other opportunities for energy waste cleanup. We will see a trend toward electric propulsion. Mass transit systems and railroad electrification appear to be opportunities for savings in petroleum products, with environmental benefits as well. As they are developed and gain greater acceptance, electric vehicles will save energy as well.

More Efficient Energy Use

The United States is an energy glutton, wasting billions of BTU's in underinsulated homes and inefficient manufacturing processes. By designing products and processes to use energy more efficiently, we can achieve energy with little adverse economic impact. Other items for consideration are more mass transit, greater use of railroads to haul freight, and more material recycling.

Method[s] like these may save up to [__] percent [in] energy use without alter[ing] seriou[sly] endangering economic [gr]owth.

However, while these measures can [lo]wer the r[ate] in demand for energy [te]mporarily, they do not forecast a [lo]ng-term reduction in the demand [for] electricity. In fact, prospects are [al]most certain for a continued growth [in] electric energy usage. A recent [Na]tional Academy of Engineering [st]udy indicated that rapid growth in [el]ectric energy production—in fact, [mo]re than a 200 percent increase—is [no]t only predicted, but desirable.

Why the big growth in electricity [wh]en everyone is demanding a decrease in energy growth? Because [elec]tricity is needed to shoulder more [of] the total energy burden as we decrease our dependence on gas and oil.

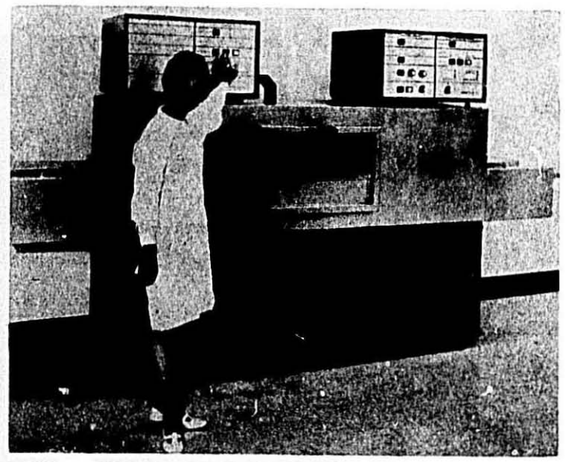
Conversion Fuels

[As] stated earlier that the energy base [wo]uld shift its emphasis to more [rea]dily available fuels, the most obvious being coal and uranium. To a [lar]ger extent, we could include solar [en]ergy, geothermal steam, hydrogen, [fro]m even the winds and tides. All of [the]se energy sources that might replace [gas] and oil in significant quantities [have] one thing in common—they [are] "conversion fuels." That is, in [order] to be used, they first must be [con]verted to electricity.

[Tw]enty-eight percent of U.S. [ener]gy needs now are met by gas and [oil]. Transportation, space heating, [proc]ess steam and direct heat—accounting for 80 percent of the total oil [and] gas consumption. These areas [will] necessarily [be] going to see a greater [pen]etration of electricity to meet their [nee]ds now supplied by gas and oil.

[As] supplies of gas and oil become [tig]hter and prices rise, the shift to [the] electric-based economy will become imperative.

[We]'re making decisions now that [will] affect our supply of energy for [yea]rs to come. If our decisions are [not] to be made in the best economic [and] social interests of the consumer, the utilities, and the society [as] whole, it will require longterm [plan]ning and a re-examination of our [uti]lities applying rigorous cost-benefit analysis to all of the possibilities.



Research-size Microwave Units

For the first time in several years Microdry Corporation is selling research-size industrial microwave units. Micordry is said to have designed and built most of the industrial microwave heating units in production use in the world; users report routine savings of 10% to 80% in energy, space, production time, labor and sanitizing, up to 50% savings on capital investment, and reduction of microbiological count as high as 99.99%.

Three research models are available. Largest is a 10 kilowatt model, adequate for some production lines. The others are 2½KW and 5 KW. The large unit, a new design, is a 915 megahertz model; the two smaller units are of the 2450 megahertz type.

Microdry claims to have simplified installation and operation so that a research unit can be installed, tested and complete instruction given to operating personnel within one day—a far cry from the first temperamental industrial units of a few years ago. Detailed operating manuals accompany each unit.

A service department is maintained for trouble-shooting and to help customers solve problems with new types of products.

All three models have the following features. Completely safe operation, interlocked and monitored. Oscillating conveyors that allow continuous operation without end-of-belt handling. Conveyor speeds adjustable over a wide range. Complete electrical hot air system with automatic regulation (steam is optional in the larger unit). Side door allows testing of very large samples. All stainless steel tunnel construction. Power adjustable from 0 to maximum.

Prices F.O.B. San Ramon, California, are: 2½ KW—$20,500; 5 KW—$24,500; and 10 KW—$55,000. 90 day delivery is quoted.

For more information write Microdry Corporation, 3111 Fostoria Way, San Ramon, California 94583.

Boston Sea Party

International Multifoods Corporation of Minneapolis moves further in the eat-away-from-home market with the acquisition of the Boston Sea Party, a restaurant specializing in sea food at up-scale prices.

Multifoods, better known for Robin Hood Flour and Kretschmer wheat germ, acquired the Mister Donut and Sveden House restaurant chains in 1970 and opened a high-end steak house called T. Butcherblock two years ago.

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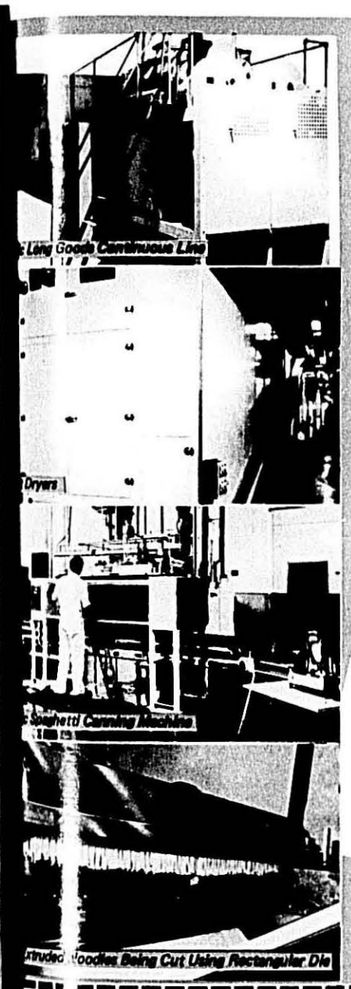

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Processed Eggs

A total of 45.5 million dozen shell eggs were broken April 27 through May 24, 1975 under the USDA's Egg Products Inspection Act—down 21 percent from the corresponding four weeks of last year. Percentage decreases by regions from last year were: South Central, 14; North Central, 15; South Atlantic and Western, each 26; and North Atlantic, 38.

During the four weeks, 67 million pounds of liquid egg products were used in processing—down 24 percent from the same period last year. Ingredients added in processing totaled 2.4 million pounds, 26 percent less than a year ago.

Liquid egg production (including added ingredients) for immediate consumption and processing totaled 25.7 million pounds during the 4-week period, 6 percent below the same period last year. Products for immediate consumption totaled 14.0 million pounds, compared with 10.3 million a year earlier. Those for processing totaled 11.7 million pounds, compared with 16.9 million last year.

Frozen egg products amounted to 25.9 million pounds, 26 percent less than last year. Dried egg production was 4.3 million pounds, 38 per cent below the 4-week period a year ago.

Cumulative totals July 1, 1974 through May 24, 1975 and percentage decreases from the corresonding 1973-74 period are as follows: Shell eggs broken—502 million dozen, 6 percent liquid eggs in processing—746 million pounds, 6 percent; frozen products—277 million pounds, 14 percent; and dried products at 53 million pounds, 17 percent. The cumulative total for immediate consumption and processing at 274 million pounds, was up 4 percent from the same period last year.

Record Sales for General Mills

General Mills Inc. said its food businesses contributed more than did its consumer nonfood or specialty-chemicals operations, to record earnings in the year ended May 25. The concern also had record sales.

The diversified concern earned $76.2 million, or $3.19 a share, on sales of $2.31 billion, up from a year before's $75.1 million, or $3.18 a share, on sales of $2 billion. The fiscal 1975 earnings were reduced $7.8 million, or 32 cents a share, by the company's decision to account for about 36% of its consolidated inventories by the last-in, first-out, or LIFO, method rather than the first-in, first-out, or FIFO, method. Under LIFO, the cost of goods sold is based on the most-recent prices for raw materials, thus reducing inflation's ballooning effect on profit.

The concern said its three broad operating areas all contributed comparably to the sales gain, primarily due to the results of inflation on selling prices. The company's food businesses contributed most to the earnings increase, a spokesman said, especially in the fiscal fourth quarter, when an overall increase in food-buying volume ended those businesses on a strong note.

Cautious consumer-buying habits contributed to mixed results for the craft, game and toy businesses of the consumer nonfood operations, he said.

The concern's specialty-chemicals operations were weaker in the fiscal second half than in the first due to inventory corrections and production slowdowns among the industries served, the company said.

Multifood Promotions

David J. Baehr has been promoted to assistant production manager for International Multifoods' industrial foods division. Willis R. Almendinger succeeds Baehr as plant manager—St. Paul durum mills.

In this newly created position, Baehr is responsible for production in Multifoods' three durum mills at St. Paul, Minn., and Baldwinsville, N.Y., as well as the company's rye mill at New Ulm, Minn. He also assists in production management for other areas of the division.

Baehr, who began work with Multifoods in 1954 following graduation from Kansas State University at Manhattan, holds a bachelor's degree in milling administration. He has served with the company in various managerial and production capacities throughout the Midwest.

Almendinger, who joined the company in 1966, most recently was plant superintendent at Multifoods' Buffalo spring wheat mill. Prior to that, he held various engineering positions with the company in Minneapolis and New York.

A native of Robbinsdale, Minn., Almendinger was graduated from the University of Minnesota in 1966 with a bachelor's degree in engineering.

In addition to durum products, Multifoods' industrial foods division produces and markets flour, prepared bakery mixes and supplies, and markets bakery equipment.

The Minneapolis-based diversified food company had sales in excess of $828 million in fiscal 1975, with 25 percent of the sales coming from the industrial foods division.

ADM Acquisition

Archer Daniels Midland Company, soybean processor and miller, said it agreed with the principal shareholders of Tabor & Co. to acquire the privately held Midwestern grain merchandiser. The company said about one million shares of Archer Daniels common will be exchanged in the transaction.

Grain inventories, elevator facilities, branch offices, receivables, other cash equivalents and a grain division are involved in the transaction, an Archer Daniels spokesman said.

He added that Burnell Kraft will remain president of Tabor and Co. Tabor will remain chairman. Tabor reportedly will become one of Archer Daniels' largest stockholders.

Italian Complaints

Great Plains Wheat reports Congressman Mark Andrews of North Dakota returned from a trip to Italy with reports that the Italian milling industry was less than satisfied with U.S. Durum exports. Trade sources report that the Italians have purchased mainly No. 5 Amber Durum from the Canadians this season and No. 3 Hard Amber Durum from the U.S., so it looks like they have been buying on price rather than quality and then complaining. Charles Pence, the International Marketing Director for Grains in the USDA Foreign Agricultural Service, will meet with the Italian wheat trade in Rome to see if there is a problem.

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Ambretto Dough Sheet Former with teflon slot die for 20" sheet, 1000 lb./hr. Die-support stand and connecting tubes. Excellent condition. Call or write A. G. DeFelice, U.S. Macaroni Co., East 601 Pacific, Spokane, Wash. 99202, (509) 747-2085.

WANTED—Gaubert Spaghetti Packer. Write P.O. Box 336, Palatine, Ill. 60067.

FOR SALE—One Braibanti Coil Vermicelli machine, Double Matassona, with a Pavan P-200. Best offer. Write P.O. Box 336, Palatine, Ill. 60067.

Peavey Dividend

Peavey Company declared the regular quarterly dividend of 25¢ a share on the common stock, payable July 15 to holders of record July 1. The company has 3,715,000 shares outstanding.

Profits Spur Production

(Continued from page 3)

The rules of the game must be fair. This country's goal in the trade negotiations getting underway in Geneva must be to improve the competitive climate in international trade; to work for a trading system where buying and selling are based on productivity, efficiency and consumer choice rather than on government regulation.

Our farmers can point to their production records as proof of their ability to get the job done. And if we're to feed the millions of hungry people in this world, increased production is a must.

Farmers must be free to decide how much of what crop they want to produce. Free, at the same time, to assume the risks and accrue the benefits derived when they, not governments, make those decisions. The opportunity to make a tidy profit when all goes well—including the weather—is the production incentive our farmers have responded to in performing what much of the world considers to be agricultural miracles.

Fritz Corrigan

Peavey Officials

The Board of Directors of Peavey Company have elected Fritz Corrigan Chairman; Roger C. Greene Vice Chairman and William G. Stocks President and Chief Operating Officer. Corrigan remains Chief Executive Officer, a post he's held since October, 1968.

Announcing the Board's action, Corrigan said: "These moves complete a plan we've had for some time to structure senior Peavey management to insure our company's cur ent an long-range plans for chan e an growth.

"As Vice Chairman, Roge Gree will be responsible for corpo ate de velopment and have key c rpora staff functions reporting to h m. Wi liam G. Stocks, as President a d Chi Operating Officer, will be c ncerne with Peavey's operations on a da to-day basis," Corrigan stated.

Greene, 58, held management p sitions in the industrial foods an agricultural areas for Peavey sin joining the company in 1935. He w elected a Corporate Vice Presid in 1965 and an Executive Vice Pres dent in January, 1974. He has been member of the Board of Directo since 1971.

Stocks, 48, brings a strong financi background to his new post. In r cent years his responsibilities we concentrated in operating areas f Peavey. He joined Peavey in 1956 the treasurer's office. He was elect Vice President-Finance and Treasu in 1968 and an Executive Vice Pre dent in January, 1974. Stocks w elected to the Peavey Board of D rectors in 1969.

In the past five years Peavey h expanded from its traditional base grain and flour milling to include co sumer foods products and specialti "do-it-yourself" retail activities in fabrics for home sewing and home i provement-building supply b nesses. During that time annual s have doubled to approximately million.

Lloyd Skinner Named

Lloyd E. Skinner, chair an chief executive officer of Skin er M aroni Co., has been named resid of the Advisory Board o one Omaha's largest hospitals Ber Mercy. Mr. Skinner has s rved hospital board since the i stitut opened in 1964. Prior to tha t he on the board of another O aha H pital, St. Catherine's.

Mr. Skinner also has been given Alumni Merit Award by his a mater, Creighton University, one eight distinguished graduates hono this Spring. Mr. Skinner is a mem of Creighton University's Presid Council and a past president of Alumni Chapter, Alpha Sigma (National Jesuit Honorary Societ