

**THE
MACARONI
JOURNAL**

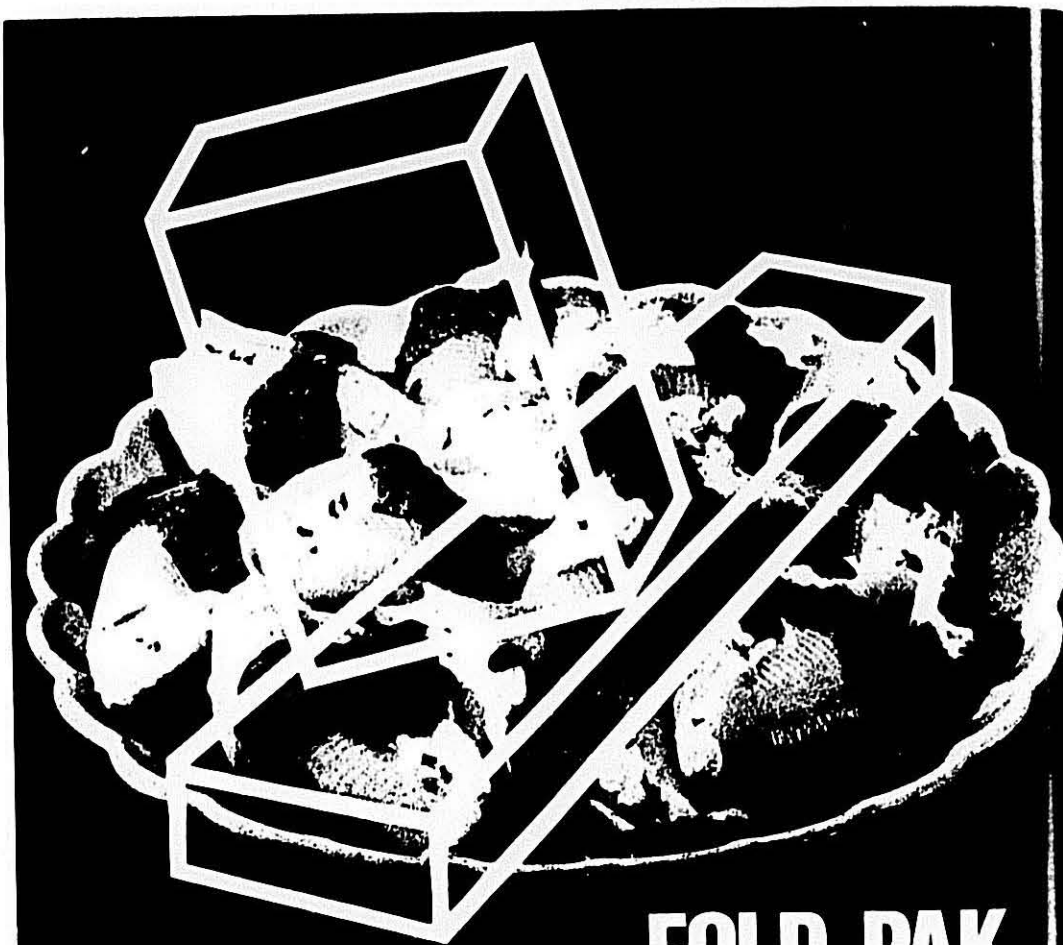
**Volume 60
No. 3**

July, 1978

Macaroni Journal

JULY, 1978





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The Macaroni Journal

Vol. 60
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1978

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regarding advertising or editorial materials to Robert M. Green, Editor,
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Cover Photo

America Entertains At Home With Pasta is the National Macaroni Institute's new promotional theme for its public relations campaign motivating consumers to eat macaroni as a happy alternative to eating out.

A Quarter of an Hour in no time, utilizing food processors and microwave ovens in producing pasta recipes which At Home hosts or hostesses can prepare and serve within fifteen minutes.

Store operators are reminded of the related item promotional impact of pasta products. Here is a recipe for Macaroni Vegetable Salad illustrates how a 40-cent purchase of elbow macaroni sells \$2.50 in related items including celery, green peppers, onions, and cheese from the fresh produce and dairy sections plus canned peas and macaroni sauce from the grocery department.

Speak Up, Businessmen

Why aren't businessmen more effective in discussing the principles by which they live?

The first reason is that we are simply not prepared to do it.

We go about our business these days to-day, make a sale, make a purchase, we hire a new employee. At most, never in the course of a day do we stop to reflect on the deeper meaning of free enterprise. We don't think in philosophical terms.

The second reason the business man often hesitates is that most of us would rather face a tax audit than step up before a hostile audience. I suspect secretly many of us would wonder on the firing line with a lot of hard questions thrown at us whether we could defend our American system of free enterprise. Let's hear some good news for you.

It is absolutely 100% defensible.

Bruce C. Gottwald, President and Chief Operating Officer, Ethel Corp.

PROGRAM

National Macaroni Manufacturers Association

74th Annual Meeting—Hotel del Coronado, Coronado, California 92118

SUNDAY, JULY 9

- 1:00 p.m. Committee Meetings in the Windsor Complex; Registration Desk in Main Lobby Opens.
4:30 p.m. Tijuana Tour: Dinner; Jai Alai games; shopping; sightseeing. Return at 10:00 p.m.

MONDAY, JULY 10

- 8:00 a.m. Continental Breakfast in Ocean View Room.
9:00 a.m. First Business Session in the Crystal Room.
Greetings from the President; Appointment of Convention Committees.
9:15 a.m. Pasta's Potential in the Foodservice Industry—
by Christopher Smith, Burson-Marsteller.
Comments, Questions, and Answers from a panel of foodservice specialists:
Moderator: Jo David.
Mary Duffy, Interstate United Corporation;
Donna Roberts, American School Foodservice Association Journal;
Ralph Franks, Jr., Lawry Foods.
11:00 a.m. Product Promotion Report—Elinor Ehrman, Burson-Marsteller.
1:00 a.m. Tennis Mixer—Sign up in advance at Convention Registration Desk.
7:00 p.m. Suppliers' Social in the Garden Patio.
8:00 p.m. Italian Dinner Party in the Ballroom.

TUESDAY, JULY 11

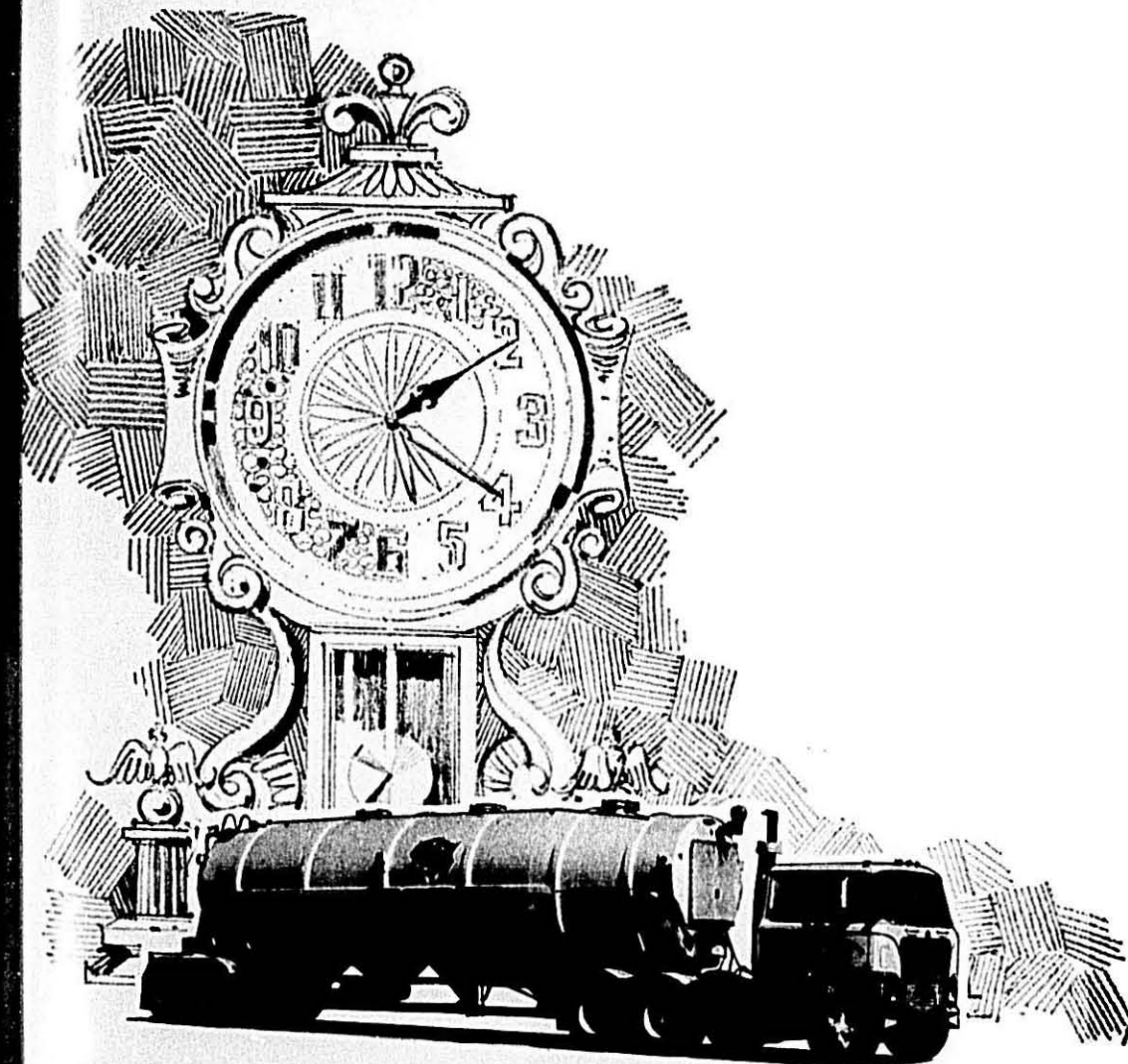
- 8:00 a.m. Continental Breakfast in Ocean View Room.
9:00 a.m. Second Business Session in the Crystal Room.
Grocers' Panel: What's Happening in the Supermarket?
Moderator: Vincent DeDomenico.
Stan Cook, Vice President, Grocery and Liquor Division, Ralphs Grocery Company;
Les Lorge, Head Grocery Merchandiser, Vons Grocery Company;
Everett Dingwell, Vice President, Marketing, Certified Grocers of California.
Round-table discussions; Adjournment.
1:00 p.m. Golf Tournament—sign up in advance, Convention Registration Desk.
7:00 p.m. Suppliers' Social at Poolside. No planned dinner function.

WEDNESDAY, JULY 12

- 8:00 a.m. Continental Breakfast in Ocean View Room.
9:00 a.m. Third Business Session in the Crystal Room.
Report of Director of Research—James J. Winston.
9:20 a.m. Report of Standards Committee—Paul A. Vermynen.
9:40 a.m. Review of Durum Research—Dr. James S. Quick.
10:00 a.m. Washington Review—Louis Marchese, Halfpenny & Hahn.
10:30 a.m. Macaroni in Europe—Freddie F. Fox, Pasta Foods Ltd.
11:00 a.m. Association Business—Convention Committee Reports—Election of Directors.
12:00 noon Organizational Meeting—Board of Directors.
7:00 p.m. Suppliers' Social—Periphery of the Ballroom.
8:00 p.m. Dinner-Dance in the Ballroom.

THURSDAY, JULY 13

- 9:00 a.m. Board of Directors Meet in the Windsor Complex.



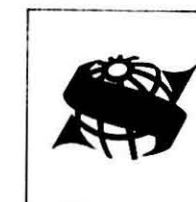
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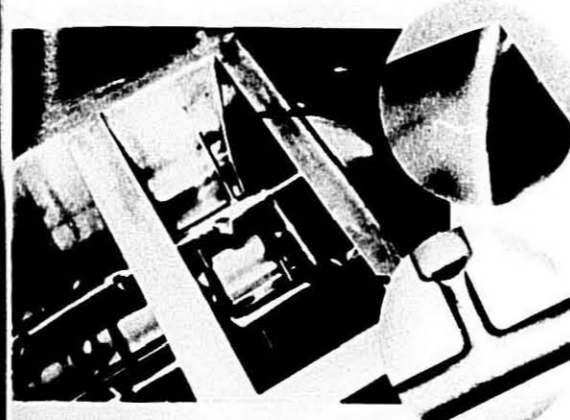
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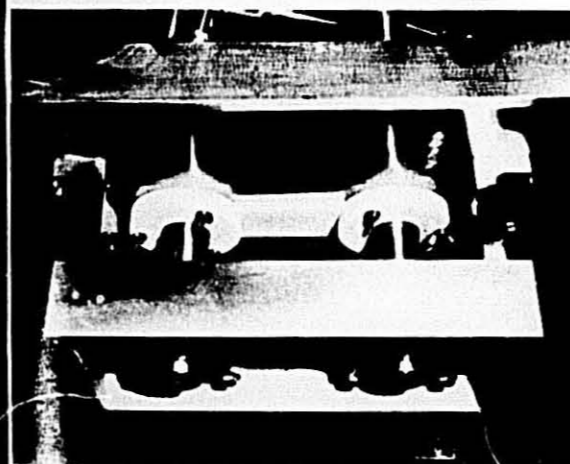
in Federally Inspected Meat and Poultry Plants. Each DEMACO Extruder so approved has the Continuous Macaroni Mixer shown here.



BACTERIA PROOF!

The DEMACO Mixer (shown on the left) has all welded and ground smooth stainless steel construction which eliminates any cracks and crevices which could harbor bacteria.

Mixer paddles are welded to the shafts with joints ground smooth as above, to eliminate probable trouble spots. Bearings and the gear box are located well away from the product zone.



OIL LEAK-PROOF!

The mixer shafts come through the stainless mixer end-plates. Delrin spacers seal the product zone. The mixer shafts continue into the gear box, where conventional packings are used.

There is sufficient space between the delrin spacers and the gear box to allow for ready cleaning. The delrin spacers prevent any seepage of gear box oil into the product zone.



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Thumb screw construction allows the airlock to be easily dismantled for rapid cleaning. Using a small special wrench and removing thumb screws makes cleaning the Pre-mixer a simple task. The all-stainless, no-crevice mixer basin lets you clean with liquids without fear of rust.

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BEAUTIFUL DEL CORONADO

THE San Diego area offers convention visitors much to see and much to do along with ideal convention facilities at del Coronado Hotel.

Delegates can take best advantage of these attractions by arriving early, before the convention business starts Monday morning, July 10, and staying after its conclusion with the Board of Directors Meeting on the morning of July 13.

San Diego is the best of California with a dash of international flavor added for zest. It's actually just a short fifteen minutes away from the del Coronado Hotel to Tijuana, Mexico. Enjoy everything from duty-free shopping to the excitement of racing, bullfights, and jai alai on the weekend, all in foreign country atmosphere.

San Diego offers a wonderful world of water, with two great bays and seventy miles of sandy beaches. Take your pick: sailing, water skiing, swimming, surfing, fishing, skin diving, sunning. Or venture out to the open sea where the Pacific Ocean is alive with fighting game fish.

Enjoy the excitement of San Diego Zoo, with the world's largest wild animal collection in 125 acres of lush tropical setting, and beautiful Balboa Park.

And visit Sea World, with performing dolphins, rare captive killer whale, beautiful sea maids, and Japanese pearl divers.

Or take your pick of 64 year-round golf courses.



Hotel Del Coronado on Glorietta Bay, site of the 74th Annual NMMA Meeting

Grocers' Panel

Everett W. Dingwell came to California from South Dakota. He has been a warehouseman, food broker and since working for Certified Grocers of California Ltd. in 1968 has been a grocery buyer, manager—private label purchasing merchandiser, director of sales, executive director of merchandising and presently vice president—marketing. Here he is responsible for grocery, frozen food and deli purchasing; general merchandise; advertising; marketing development; corporate sales program; member services department; bakery and dairy products divisions, produce warehouse and meat plant.

Everett and his wife Lenny have a daughter, Dawn.

Lester L. Lorge is head grocery division merchandiser for Vons Grocery Company.

He started as a box boy in 1955

and has come up through the ranks to grocery manager and store manager in 1962. He has worked in produce and liquor divisions; was made "new store set-up man" in 1970. San Diego District Manager in 1971. In 1977 was appointed Grocery Division Merchandiser, the position he presently holds.

Les and his wife Pamela have three children.

Stan Coop went to school and started in the grocery business in Iowa. He joined Ralphs Grocery Company in 1966 as a meat department order clerk. He was promoted to meat buyer, grocery buyer and is presently vice president, grocery-liquor division.

Stan is a past president of the Southern California Deli Council and a director in the local Boy Scout organization.

He and his wife Dena have six boys and three girls.



Everett W. Dingwell
V.P. Marketing, Certified Grocers
of California, Ltd.



Lester L. Lorge
Head Grocery Merchandiser,
Vons Grocery Company



Stan Coop
V.P. Grocery and Liquor Division,
Ralphs Grocery Company



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Pasta Party Specialties
Cook in 15 Minutes

Expecting guests? Short on time? Today's suggestions from the National Macaroni Institute will help you entertain easily and quickly.

Consider Egg Noodles with Swedish Style Meat Balls. Once the meat balls are mixed and shaped, cooking takes only fifteen minutes. (Here's a tip to help make the meat balls quickly. Use a teaspoon to scoop the meat from the bowl; a couple of quick twists round the side unshaped by the spoon). As the egg noodles cook, brown the meat and heat in a fast sauce using canned soup and other convenience ingredients.

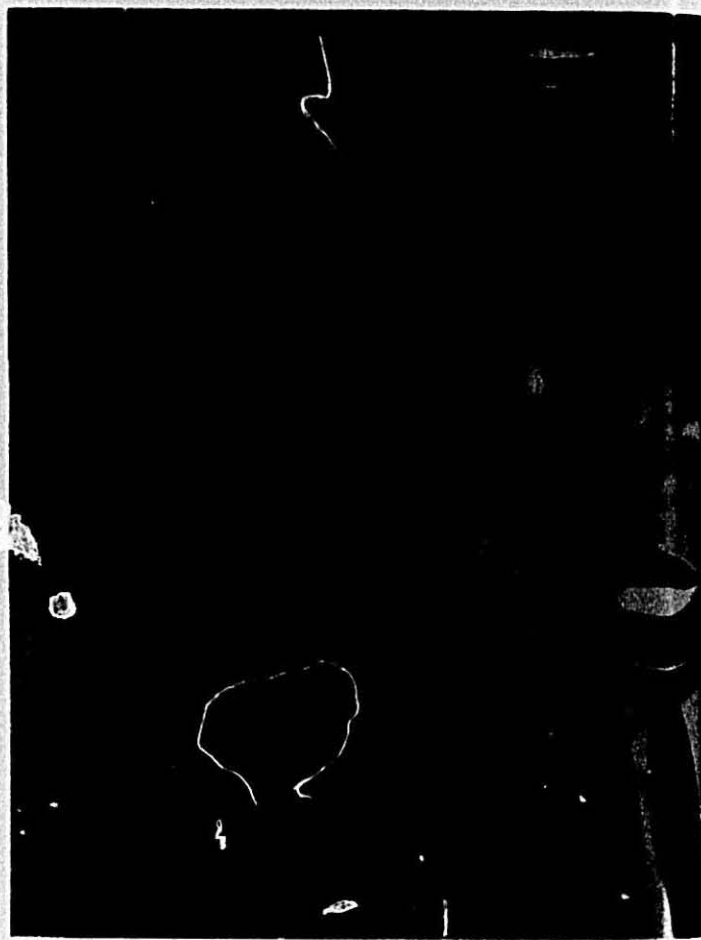
Spaghetti is a party favorite. When you're in a hurry and want a new version, turn to your food processor and microwave oven. Make a Gouda cheese sauce for the pasta. Let the processor do the grating. Microwave the sauce. It's a fifteen minute wonder to present with pride.

These outstanding pasta dishes need little more to be a complete meal. A bowl of bright salad greens, crusty rolls and wine with the entree, and angel food cake for dessert (purchased at the supermarket) topped with frozen strawberries round out the festive menus.

Keep these recipes handy for occasions whenever quick-to-make, nourishing meals are in order. We are reminded to increase our carbohydrate intake (pasta is an excellent carbohydrate source), and decrease our consumption of fats and sugars. Pasta also gives us iron and the B vitamins—niacin, thiamine and riboflavin. Egg noodles, spaghetti and elbow macaroni are low fat, low sodium, easily digested foods.

Egg Noodles with Swedish Style Meatballs
(Makes 8 servings)

- 2 pounds lean ground beef
- 2 eggs
- 4 slices white bread crumbled (2 cups)
- Salt
- 1/4 teaspoon nutmeg
- 1/8 teaspoon pepper
- 1 small onion, minced
- 2 tablespoons salad oil
- 2 cans (10 3/4 ounces each) condensed cream of celery soup



- 1 cup sour cream
- 1/2 cup milk
- 1 pound medium egg noodles (about 8 cups)
- 4 to 6 quarts boiling water

In large bowl, mix together beef, eggs, bread crumbs, 1 teaspoon salt, nutmeg, pepper and onion; shape into 32 meat balls. In large skillet brown meat balls in oil on all sides. Drain off fat, if necessary. Cover and cook over low heat 5 minutes. Blend soup, sour cream and milk. Pour over meat balls. Cover and cook 5-10 minutes or until hot.

While meat balls are cooking, gradually add noodles and 2 tablespoons salt to rapidly boiling water so that water continues to boil. Cook uncovered, stirring occasionally, until tender. Drain in colander. Serve with meat balls.

Spaghetti with Gouda Cheese Sauce
(Makes 8 servings)

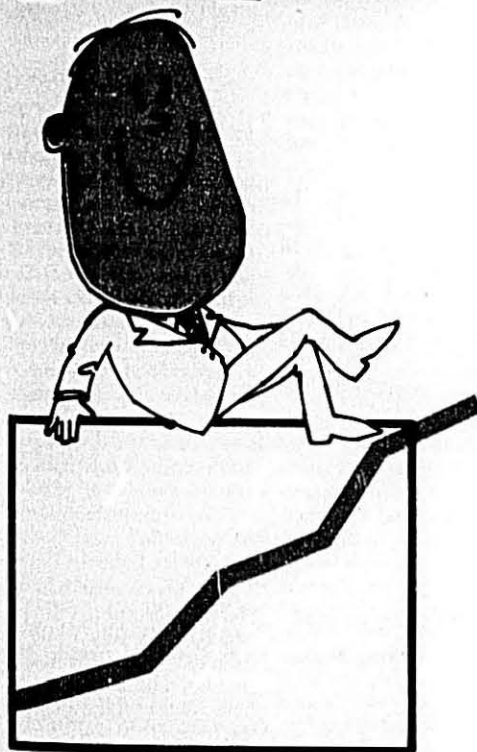
- 1 pound spaghetti
- 2 tablespoons salt
- 4 to 6 quarts boiling water
- 6 ounces Gouda cheese, cut in chunks
- 2 ribs of celery, quartered
- 1 can (10 3/4 ounces) condensed cream of mushroom soup
- 1/2 cup milk
- 1 tablespoon chopped chives

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

While spaghetti cooks, with cutting blade in place, put cheese in food processor container. Process until grated. Add celery, mushroom soup, milk and chives. Process until celery is finely chopped.

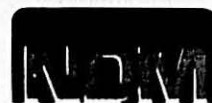
(Continued on page 12)

If you want sales, call the durum people.



When you start with the best in durum, you'll find your sales curve going up. There is a difference, and you and your customers will be able to taste the difference. If your label goes on a product, you want to be able to take pride in it. That's why you will want to start with the best: Durakota No. 1 Semolina, Perfecto Durum Granular or Excello Fancy Durum Patent Flour. Then sit back and watch your sales curve go up!

the durum people



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Pasta Party Specialties

(Continued from page 10)

is finely chopped. Pour into microwave-proof bowl. Cover and microwave 3 minutes. Stir after 1 minute and 2 minutes. Serve spaghetti with sauce.

Conventional method: Grate cheese and finely chop celery; combine with soup, milk and chives in saucepan. Stir over low heat until hot. Proceed as above.

German 'Nudel'

Noodles originated in Germany where they have been in popular use for centuries.

They are a member of the macaroni family distinguished in the Federal Standards of Identity by having 5.5% egg solids and being ribbon shaped.

"Noodle" is an American spelling of "nudel," the German word for macaroni.

Noodles are made from special wheat flour and eggs, pressed through rollers or extruded by special dies into large sheets. They are cut into various sizes and forms by special machines and then carefully and thoroughly dried. After processing they are packaged in cartons or transparent bags.

U.S. Department of Agriculture gives values for 100 grams of enriched egg noodles as purchased, dry state, as follows: 388 calories; 12.8 grams of protein; 4.5 grams of fat and 72.0 grams carbohydrate. When cooked, noodles about double their volume.

Noodle Promotion in Brazil

Marx Koehnke, director of international marketing in the Wheat Division of the Nebraska Department of Agriculture, will make a three-week trip to Brazil to examine the potential market for U.S. wheat in the production of flour for noodles for the growing Oriental population of that country. Mr. Koehnke, who spent two years in Brazil in the 1960's on an agricultural mission for the Department of State, observed that a sizable Oriental population lives in that country, especially around the city of Sao Paulo, and that noodles are an important part of their diet.

There is no definitive information available on the noodle market potential and the possibility of increasing

that market through an intensive advertising and promotion program," Mr. Koehnke said. "We'll be contacting the manufacturers and checking systems and consumer attitudes to get some answers."

Mr. Koehnke's trip is being sponsored by Great Plains Wheat, Inc. He will be accompanied by Fred Day, G.P.W.'s baking consultant in Brazil, and a member of the staff of G.P.W.'s Caracas office. The Nebraska Wheat Division, whose activities are financed by a grower levy, aided G.P.W. in securing a grant from the Old West Regional Commission for the pilot noodle promotion project, as a program aimed at increasing exports of wheat.

Wheat Foods Petition

Legal counsel for the Wheat and Wheat Foods Foundation, Inc., is drafting a petition to be filed with the Department of Agriculture for a proposed order establishing the Wheat and Wheat Foods Research and Nutrition Education Program authorized in the Food and Agriculture Act of 1977.

Submission of the petition by the Foundation is the initial step toward creation of a Wheat Industry Council to develop and administer a program of research and nutrition education financed by assessment of end product manufacturers such as bread and cake bakers, biscuit and cracker manufacturers and macaroni manufacturers.

Foundation officers recently voted to retain John F. O'Neal, Washington attorney, to represent it in implementation of the wheat foods program. That action was taken after the three Washington-based breadstuffs organizations represented on the Foundation—American Bakers Association, Millers' National Federation and the National Association of Wheat Growers—confirmed that legal costs could be shared on an equal, or one-third basis.

Support from Wheat Growers

Directors of the Foundation voted last Dec. 15 to begin implementing provisions of the Wheat and Wheat Foods Research and Nutrition Education Act as soon as financing was

assured. Jerry Rees, executive vice-president of the N.A.W.G., expressed gratitude that wheat growers had raised their share of the legal costs through pledges from state associations and commissions, thus clearing the final financial hurdle.

"The growers simply said they were not going to spend this much time and effort to accomplish something that would benefit us and then just let it stop," Mr. Rees said of wheat grower support for implementation of the program.

Establishes Procedures for Order

The petition now being drafted, according to Donald Heitman, an associate in Mr. O'Neal's law firm, establishes procedures under which the program would be implemented. "It basically is a procedural document," he said. "The proposed order would not include details on the program itself." He indicated the petition would be ready for filing in several weeks.

Public Hearings to Follow

Publication of the proposed order by the Secretary of Agriculture is petitioned by the Foundation would be accompanied by an invitation to comment and participate at public hearings on the proposal, Mr. Heitman said. From testimony presented at the hearings, U.S.D.A. determines if the proposed order should be promulgated and a referendum held among end product manufacturers.

Mr. O'Neal, who represents the Foundation in its successful efforts before Congress to have the wheat and wheat foods program enacted, has estimated that implementation of the program will require 12 to 15 months from submission of the petition to actual initiation of projects by the Wheat Industry Council.

Mr. Rees noted that the National Wheat Institute will be dissolved shortly after July 1 and will be contributing a substantial amount of research and nutrition material to the new Wheat Industry Council yet to be formed.

The Institute has founded more than a dozen research and education projects in wheat foods through the Wheat Research and Promotion Act of 1970, utilizing about \$2 million in 1968-69 export marketing certification pool funds.

World Wheat Situation Tighter

Selected wheat production projections for major wheat producing countries under good and bad weather alternatives respectively include: U.S.S.R. with 110.3 to 89.7 million tons, compared to 92.0 million tons last year; Canada with 20.7 to 16.8 million tons, compared to 19.7 million tons the previous year; Australia with 14.8 to 11.2 million tons, compared to 9.3 million tons in 1977/78; and Argentina with 8.3 to 6.1 million tons, versus 5.2 million tons a year earlier. All other major wheat producing countries have an estimated mid-point range of production about the same or greater than the actual 1977/78 output, except in the United States.

Quarterly Durum Report

The Crop Reporting Board on April 1 reported that durum wheat growers intend to plant 4.1 million acres, a 29 percent increase from last year's 3.3 million acres, but 14 percent fewer acres than in 1976. The April 1 planting intentions were two percent less than on January 1. The New Mexico estimates have been discontinued and will be included in winter wheat estimates in the June Acreage Report. Growers in Minnesota intend to plant 18 percent more durum acreage this year while North Dakota and Montana are increasing 29 and 30 percent, respectively. South Dakota farmers are indicating no change in acreage. California growers expect a large increase in acreage to 115 thousand this year. Growers in North Dakota, the leading durum producing State, began the seeding of durum wheat by May 1 and by the second week of May, barring adverse weather, should be full swing in all districts. Last year, by the first of May 21 percent of the durum wheat had been planted compared to only two percent seeded by the first of May this year.

Stocks: Durum wheat stocks in all positions on April 1, 1978 totaled 91.3 million bushels (2.5 million metric tons), 16 percent less than last year's 108.4 million bushels (2.9 million metric tons). Farms held 67 percent of the durum wheat stocks, totaling 61.0 million bushels (1.7 million metric tons) and over 80 percent of these

stocks were on North Dakota farms. Off-farm storage of durum wheat amounted to 29.7 million bushels (808 thousand metric tons). Disappearance of durum from January 1, 1978 through March 31, 1978 totaled 17.1 million bushels (465 thousand metric tons). Last year's disappearance for the same quarter amounted to 19.4 million bushels (528 thousand metric tons).

Exports: U.S. exports of durum wheat during the June-March period totaled 42.8 million bushels (1.2 million metric tons), which was an increase of 10.6 million bushels over last year. Over 3.5 million metric tons went to Algeria and 1.5 million metric tons each to Italy and Tunisia. Exports out of Duluth/Superior this shipping season took the lead over the hard wheat classes. Since the opening of the shipping season through the end of April, 3.8 million bushels of durum have been exported compared to 0.2 million for the same period a year ago. The strong demand from exporters increased the cash price by over 10 cents during the past three months.

Canadian Situation: Durum wheat acreage, according to Canadian statistics, based on March 15 findings decreased by 367,000 acres and if acreage intentions are carried out, prairie farmers will plant 3,550,000 acres compared to 1,800,000 grown in 1977. The visible supply of Canadian durum in licensed storage and in transit on April 26 amounted to 635 thousand metric tons, which was 334 thousand metric tons less than one year ago. Canadian exports of durum wheat in June-March 1977/1978 amounted to 1.8 million metric tons compared to 1.3 million for the same period a year ago. Algeria, Italy and U.S.S.R. were the largest importers taking 1.7 million metric tons.

Spring Seeding

Although somewhat behind the normal rate of seeding, farmers in the upper Great Plains states got some good weather after a cool, wet spring and had most of their crops planted by the end of May. The same conditions that caused the delay were very favorable to the crops that were seeded.

In Canada, although similar conditions of cool, wet fields delayed

spring planting somewhat, more favorable weather and soil conditions made for more normal speed and progress than in the U.S.

There was a cold, wet spring in Europe but with the exception of an outlook for a poorer than average production of wheat in Portugal and a fall-off of corn production in France, the crops are generally making good progress.

Durum Markets in May

No. 1 Hard Amber durum ranged from \$3.75 to \$3.85 per bushel Minneapolis with semolina quoted at \$9.40 to \$9.70, granular 15¢ less, durum flour 40¢ less.

Wheat Target Price Raised

Congress approved to raise the wheat target price from \$3 to \$3.40 and the President signed the measure.

Under the target-price program, the government pays directly to farmers the difference between the target price and the average market price. Under the borrowing program, loans are extended to farmers who put up their crops as collateral.

North Dakota Mill to Expand Durum Capacity

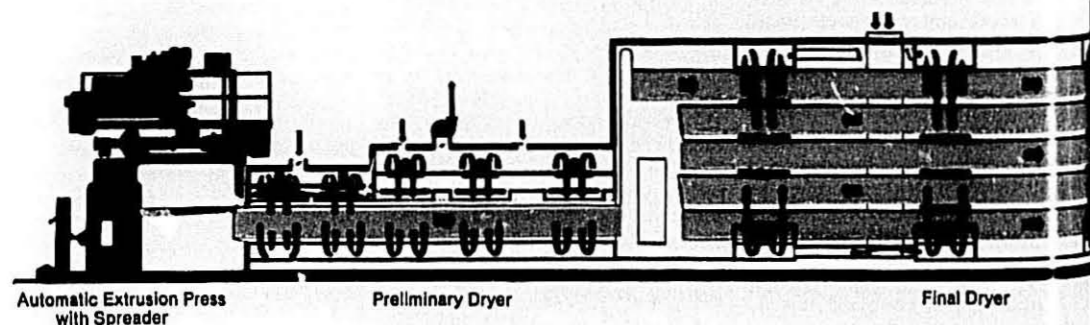
North Dakota Industrial Commission has instructed management of North Dakota Mill & Elevator to proceed with plans to more than double the mill's durum milling capacity. Specifications will be prepared promptly, to be followed by advertising for bids. Sam Kuhl, general manager of the state-owned mill, expects bids to be received by early September.

Two Units

Plans are to increase the company's "A" mill capacity by 40%, or to 7,000 cwt a day from 5,000 cwt, and to build a new semolina mill of 5,000 to 7,000 cwt adjoining the existing durum and bread flour units. The mill's "B" unit has a capacity of 5,000 cwt of spring wheat flour.

North Dakota Industrial Commission, which serves as the mill's board of directors, includes the state's governor, attorney general and commissioner of agriculture.

ATR: The hotter, faster, cleaner dryer.



Automatic Extrusion Press
with Spreader

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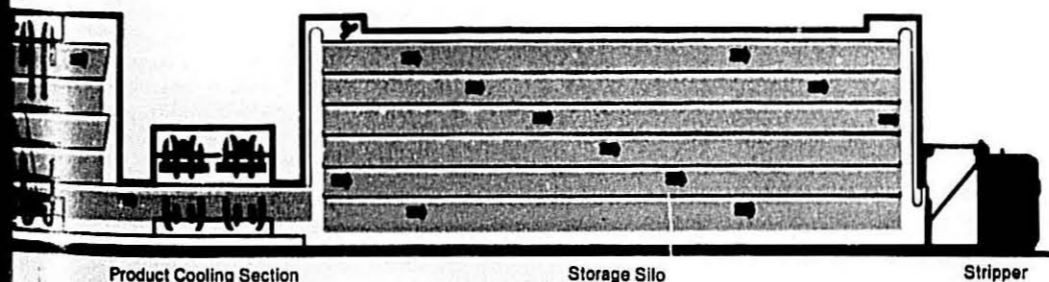
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Letter to the Editor

Dear Sir:

I am responding to a letter addressed to you by Dr. Ellis of R.H.M. Research Ltd., England, published in the April issue, regarding my research work on detection of non durum wheat (*Triticum vulgare*) in durum wheat (*Triticum durum*) products by thin layer chromatography.

The purpose of this research was to investigate the presence of sitosterol palmitate qualitatively in durum wheat varieties presently growing in North Dakota (Botno, Cando, Crosby, Rollet, Rugby, and Ward). Gilles and Youngs in 1964 developed the technique thin layer chromatography to estimate sitosterol palmitate in Sentry, Wells, Lakota and Mindum durum wheat varieties grown in North Dakota. They reported that the sitosterol palmitate was found to be substantially absent in these varieties.

These durum wheat varieties no longer exist in the field; they are replaced by the above mentioned six varieties. As per my knowledge, thin layer chromatography work on these varieties was not published. So there is a necessity to know whether these presently growing North Dakota durum wheat varieties contain any sitosterol palmitate.

European Objections

As I mentioned in my paper, European Research Workers have some objection. They cannot use this technique because their durum wheat varieties contain as much sitosterol palmitate as the common wheat. This is because of their environmental conditions and genetic origin of durum wheat varieties.

In Europe the durum mills buy durum wheat from different countries including United States with different genetical origin, whereas in the United States, the mills get 80 percent durum wheat from the state of North Dakota. So, there is no chance of getting durum wheat outside the United States. Because of this reason of having sitosterol palmitate in durum wheat, the main conclusion drawn at R.H.M. Research Meeting to use other method than thin layer chromatography.

While in the United States after 14 years, thin layer chromatography technique can still be used to detect non durum wheat in durum wheat

product because presently North Dakota durum wheat varieties do not contain sitosterol palmitate. If the future North Dakota durum wheat varieties are crossed with any European varieties, then this technique cannot be used for detecting non durum wheat in durum wheat products.

During the annual meeting of The American Association of Cereal Chemists in October, 1977, at San Francisco, the committee on Macaroni Products Analysis recommended to use Gilles and Youngs' thin layer chromatography techniques as AACC approved method to detect non durum wheat in United States durum wheat products. For this reason they recommended to conduct a collaborative study on the technique. Dr. Pierre Feillet of Montpellier, France, also attended the meeting and agreed on committee's decision with exception for only United States durum wheat products.

AACC and Macaroni Products Analysis Committee which consists of a durum miller, a macaroni manufacturer, USDA, an independent macaroni analysis laboratory, Cereal Chemistry Department of North Dakota State University, Canadian Grain Commission are reviewing all methods of analysis for evaluating processed and cooked pasta and conducting collaborative studies when possible on new methods related to pasta evaluation and to recommend to the AACC's Approved Methods Committee.

I would like to suggest to your readers that the thin layer chromatography technique is rapid, simple, and less expensive to be used to detect non durum wheat in United States durum wheat products.

Very truly yours,
S. Rasheed Ahmed
Quality Control
Prince Macaroni of Michigan, Inc.

Analytical Chemists Meet

The Association of Official Analytical Chemists (AOAC) will hold its 92nd Annual Meeting October 16-19, 1978 at the Merriott Hotel, Twin Bridges, Washington, D.C. Current developments in analytical methodology pertaining to agricultural, environmental, and public health areas will be presented and discussed.

Car Shortage in North Dakota

The current situation of deteriorating rail service has been a major topic of discussion within many government agencies and at various meetings involving producers, elevator managers, agri-business figures and government officials. The current concern with branchline abandonment and the rail car shortage presently facing N.D. and the other heavy producing areas of the U.S. seem to be causing the greatest concern. The "boxcar" shortage usually presents itself during the harvest season when grain shipments are typically heaviest. This time however, despite the attempts of the Interstate Commerce Commission and various state and local agencies to correct the situation, the rail equipment shortage has been with us since early last fall through the winter and spring and shows no sign of lessening in the near future. The nation's transportation problem is of particular importance now since this year's harvest is not far off in many areas of the country and there are considerable quantities of old crop grain yet to be moved. The North Dakota producer's major concern lies within the fact that during the past 5 years N.D. has produced 47% of the Hard Red Spring (HRS) and 91% of the Durum produced in the U.S. In that same 5 year period 49% of the HRS and 51% of the Durum produced in the U.S. was exported. Over the past 20 years HRS and Durum exports have increased 274% and 336% respectively. The rail system represents the first link in the marketing-transportation chain which eventually results in the delivery of a quality product in importing nations worldwide. The importance of a viable transportation system to the N.D. producer cannot be overstated.

Opposition to Feed Grain Agreement

The U.S. Feed Grains Council (USFGC), a broad based organization of all sectors of the U.S. feed grain industry devoted to expanding foreign markets for U.S. feed grain, announced this week its opposition to the negotiation of an international commodity agreement for coarse grains. This position was adopted by

the USFGC Executive Committee of the Board of Directors, and presented to the appropriate U.S. Government officials as guidance during the concluding stages of the GATT multilateral trade negotiations in Geneva, Switzerland. Prior to adopting this position, there was apparently some sentiment within certain quarters of the U.S. feed grain industry that a loose international agreement on feed grains, or the inclusion of feed grains along with wheat in an international grains agreement, would serve to gain long-term, sustaining access to various restrictive import markets, particularly the European Communities (EC). It would appear that even this limited degree of support in the U.S. feed grain industry for attempting to gain substantive foreign market access in return for a loose arrangement for feed grains rapidly evaporated because of little, if any, prospects of gaining any degree of commitment from importing countries to moderate or move to eliminate highly protective import barriers to U.S. corn and feed grain imports. In light of the USFGC opposition to an international accord on feed grains, there is a consensus in the total U.S. grain industry in opposing the inclusion of feed grains in any agreement. While various wheat industry organizations tend to support the concept of a balanced and equitable international agreement for only wheat along the lines of the current U.S. position in the UNCTAD Negotiating Conference they have consistently cautioned and expressed opposition to the inclusion of feed grains in such a wheat agreement.

Ten Years of Growth

Improved earnings from bakery flour operations, coupled with accelerated growth in consumer lines and away from home eating, enabled International Multifoods Corp. to achieve a record income in fiscal 1978, concluding a decade of continuous earnings improvement, according to the company's annual report for the year ended Feb. 28.

Multifoods, as announced earlier had net earnings for the year of \$22,448,000, up 12% from \$19,960,000 in the previous year. Net earnings per common share were \$2.83, up 11% from \$2.56 in fiscal 1977. In fiscal 1976,

Multifoods had income of \$16,380,000, equal to \$2.19 per share.

Net sales of Multifoods in fiscal 1978 totaled \$822,676,000, off from a record \$847,030,000 in the previous year. Sales for fiscal 1976 were \$800,834,000.

William G. Phillips, chairman and chief executive officer, and Darrell M. Runke, president and chief operating officer, in reviewing operations in the annual report note that fiscal 1978 "marked 10 years of continuous earnings improvement under our new management team. Ten years ago the management of Multifoods, then known as International Milling, set down a series of goals to guide our growth and development. Sales have grown at an annual rate of 10% during the past 10 years. They note that despite the decline in dollar sales for the past year, sales unit volume, "which we consider to be a key indicator of the health of the business, rose 4%."

Dividend Increase

Reflecting Multifoods' confidence in continuing improvement in operations, the company during the past year raised its annual dividend rate from 85¢ per common share to \$1, marking the sixth consecutive year in which the rate has been increased. "Our intention is to keep the dividend payout at between 30 and 40% of earnings," Mr. Phillips and Mr. Runke state.

"Multifoods is a much stronger company than it was 10 years ago, both in terms of financial and human resources," the officers say. "Our confidence in the future is based in part on past achievements as well as the outlook for the markets in which we operate. During fiscal 1979, we plan improvement in all four of our market areas."

Gain by Industrial Group

Multifoods' largest U.S. market area, the Industrial group, improved on last year's earnings performance. Mr. Phillips and Mr. Runke note, "Bakery flour and durum had a very strong year and the grain merchandising business also was up," they state.

The report points out that major earnings gains were achieved during the year in the U.S. and Venezuelan bakery flour lines. Canadian bakery

flour operations were impacted by an eight-month strike which shut down Montreal mills early in the year. The growth of Multifoods' Venezuelan operations was reflected in record earnings and a substantial volume gain in the relatively new bakery mix business in that country. U.S. bakery mix operations continued to be the largest earnings producer in the group.

"The fine bakery flour performance in the U.S. was accomplished despite heavy snows which disrupted business in much of the eastern and central U.S. as well as parts of Canada during the fourth quarter," the Multifoods report states. "Mill shutdowns and severe shortages of railroad cars continued into the first month of the new fiscal year, and more than 70 production days were lost to weather and rail equipment problems."

Earnings from durum milling operations returned to more normal levels of profitability in the U.S., the report says, while Canadian operations reported lower earnings since durum capacity was used to produce bakery flour during the strike. It also notes a sharp increase in sales earnings from U.S. export flour operations, with part of the increase representing flour sold to Canada during the strike. Export earnings in Canada were hampered by a lack of milling capacity.

Improvement at Peavey

Peavey Company announced net earnings for the third quarter ended April 30, of \$3,289,000 or .57 cents per share on sales of \$128,713,000. This compares with net earnings of \$829,000 or .14 cents per share on sales of \$120,386,000 for the same period a year ago.

Net earnings for the nine months ended April 30 are \$9,700,000 or \$1.67 per share on sales of \$378,641,000. This compares with net earnings of \$6,801,000 or \$1.17 per share on sales of \$369,595,000 for the first nine months a year ago.

"Agricultural operations were profitable for the third quarter and nine months of the year," Peavey President and Chief Executive Officer William G. Stocks said, "recovering satisfactorily from losses in both periods a year ago. Grain margins and volume continued to strengthen in the third quarter, though rail car shortages hampered earnings opportunities."

Industrial Foods Group earnings, while up for the third quarter, remained lower for the nine months compared with a year ago. Flour volume was up both for the quarter and nine months.

Stocks indicated that Consumer Foods Group sales and earnings improved for the nine months, though results for the third quarter were disappointing.

Peavey's Retail Group sales and earnings continued to show significant growth for the nine months. The farm store and fabric store divisions both had substantial third quarter earnings increases, Stocks said. Adverse weather earlier in the year reduced industrial and home construction activity which, in turn, slowed building supply division sales and earnings for the third quarter. Stocks noted.

"For the full year," Stocks said, "consolidated earnings should be up significantly. The Agricultural, Consumer Foods and Retail Groups should improve from a year ago, while Industrial Foods Group earnings will probably not reach last year's level."

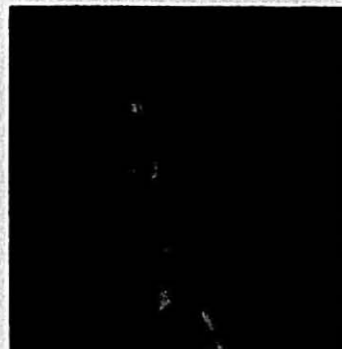
Mark Heffelfinger Chairs Millers' National Federation

Marcus W. K. Heffelfinger became chairman of the Millers' National Federation at their 76th annual meeting May 7-11.

Even though the Industrial Foods Group of Peavey Company, which he heads as group vice-president, is among the very largest milling enterprises in North America, Mr. Heffelfinger is the first executive of Peavey to head the Millers' National Federation. He noted that his associates in the management at the company responded positively to the assumption of the Federation chairmanship, while cautioning that the post in no way lessens his management duties and the results for which he is accountable.

According to Mr. Heffelfinger, his term as chairman of the M.N.F. begins with flour milling in a state of transition. Interviewed by Milling & Baking News, he said:

"Even though the industry is really in a continual state of transition," he said, "the current period has certain warning signals. Capacity expansion may have moved ahead of demand, but I look upon that as a temporary



Mark Heffelfinger

situation that can be corrected by market growth as population gains and per capita flour consumption stabilize. And, also, it is obvious that the capacity excesses are in certain geographical areas and in specific products, not for the industry as a whole. For instance, an excess appears to be the case in durum."

Mr. Heffelfinger's belief in the viability of the domestic flour market is underscored by the fact that his Industrial Foods Group is just completing the spending of \$16 million on the modernization of its milling complex at Hastings, Minn. This outlay is probably the largest amount ever spent in the U.S. on a milling plant, except for the new mill recently built at Toledo by Nabisco, Inc. The Hastings outlay is devoted "more to modernization than to capacity increases," Mr. Heffelfinger explained. It also reflects "a very large vote of confidence in the industry's future."

Concern with Consumption

Since his term as chairman begins with a strong, new direction for the Wheat Flour Institute and since it is hoped that the Wheat and Wheat Foods Foundation program, through the Wheat Industry Council will come into being before his term ends, Mr. Heffelfinger has given a great deal of thought to the ways in which flour foods consumption can be stimulated. It is his view that bread still has a strongly negative image in the entire field of weight reduction and dieting, and that as long as people tend to cut down on bread consumption when weight reduction is desired, the industry faces a great challenge.

Mr. Heffelfinger attended the Conference on U.S. Dietary Goals sponsored by the American Institute of Baking in Kansas City and he came

away from that session believing that there are opportunities for bread-stuffs in espousing the goals and the recommendations that Americans should eat more wheat foods. At the same time, he recognized that there is not full agreement among millers on the proper path to be followed in embracing the Dietary Goals, and he did not disagree with those who voice caution. At the same time, he acknowledged that further scientific investigation is not needed, only a decision on how best to proceed.

Strengthen Ties

He said he sees the launching of the Wheat Industry Council as an additional opportunity for strengthening ties between the Federation and the American Bakers Association and the National Association of Wheat Growers. He pointed out that these relationships are now about as close as they have ever been, and he declared, "I am committed to making these ties work." He also said, "To say that I look forward with great enthusiasm to the implementation of the Wheat & Wheat Foods Program is no exaggeration. Indeed, I am excited with that prospect."

Mr. Heffelfinger is a son of Tutton P. Heffelfinger, one of three brothers who ran the Peavey company for a number of years. He is the great-grandson of the company's founder, Frank H. Peavey. After attending Stanford University and the University of Minnesota, he entered the business in 1947.

His first management duties were with King Midas Flour Mills, which came following service in the Korean War in 1950-51. It was in 1951 that he attended his first M.N.F. convention, as sales manager for consumer flour in King Midas. The next year he was named assistant secretary.

Following Peavey's 1954 acquisition of Russell-Miller, Mr. Heffelfinger was appointed assistant to the president in 1955. He later became vice-president of Russell-Miller. He was instrumental in the merger of Russell-Miller and King Midas in 1960 to create what is now the Industrial Foods Group.

In 1965, Mr. Heffelfinger, now 53, became group vice-president of the Industrial Foods Group. He has held that assignment with great verve, bringing a professional-type of management that sometimes is lacking in family businesses.

The METAMORPHOSIS*

In the old days, the first generation Italo-Americans arrived here and many of them chose the production of Pasta for their livelihood. Though the business was laborious, the procedures were simple—select the best semolina for their basic ingredient—turn out the best looking and tasting product possible, and sell it to as many markets as would place the items on display.

In the course of time, complexities arose. The retail outlets became a jungle of products. Each one created to shout—buy me! Then the macaroni manufacturer became immersed in selling related items—and now completely prepared pasta products are in vogue.

However, a metamorphosis appears on the horizon: Fully appreciating the profit possibilities of the macaroni industry (which has only scratched the surface in America as compared to other countries) the giants of industry here are buying plants; and foreign money from several sources have sent professional buyers to secure the best possible purchases . . . it's happening all around you NOW!

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* METAMORPHOSIS—transform; change of form structure or substance.—Webster.

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BUCKWHEAT IN CANADA

by Ronald J. Wasik* and Joe Y. Tsukamoto

*Contribution No. 313 of the Food Research Institute, Agriculture Canada, Ottawa, Ontario.

Buckwheat is a relatively important cash crop in Western Canada. A large portion of the production is directed to the export markets, particularly Japan. Canadian producers provided approximately 40-50 percent of the buckwheat imported by Japan (yearly consumption of 50-60,000 metric tons) primarily for the manufacture of "soba," a traditional Japanese noodle containing buckwheat flour.

Although buckwheat exports to Japan make very significant contributions to the Western-Canadian economy, there is little available literature on the manner in which the Japanese process this crop. Such information is thought to be vital for both marketing and breeding purposes.

This report outlines Canadian buckwheat production and marketing practices, and describes how certain Japanese industrial firms mill and process this crop. Various shortcomings in Canada's present buckwheat production and marketing practices are discussed, and improvements suggested. Emphasis in this discussion is placed on buckwheat quality, an important, but little understood and therefore often neglected, subject.

Canadian Production and Exports

The Canadian production of buckwheat fluctuates with climatic and market conditions. During the period of surplus wheat production, 1969-1972, the acreage devoted to buckwheat ranged from 46,000 to 103,000 acres. The trend during this time interval was toward progressively larger acreages to meet export demands, which increased from approximately 400 thousand bushels to 1.2 million bushels.

Seventy-three percent of the Canadian acreage sown to buckwheat in 1972 was located in Southern Manitoba. Most of the crop was grown by farmers under contract to private exporting companies, who, in turn, arranged its sale at the highest price attainable.

Over a nine year period from 1965 to 1974, the price of a 48 lb. bushel of

buckwheat fluctuated from \$1.35 to over \$9.00. The low price of wheat, during the years of surplus production, made the production of an alternate crop necessary. Recent increases in wheat prices make this no longer necessary, and acreages previously devoted to the production of buckwheat are now being seeded to wheat. This has produced a buckwheat shortage at a time when Canada could be selling more and establishing new foreign markets for this crop. As a result of a shortage in 1974 Brazil sold 20,000 metric tons of buckwheat to Japan thus replacing Canada as Japan's principle supplier.

It therefore becomes apparent that the industry could be more viable if alternate domestic uses were developed for buckwheat. If this were done the maximum could be taken from the export market and in times of over-supply carry ourselves with the domestic production.

Grading of Buckwheat in Canada

The grading system currently used by the Canadian Grain Commission is outlined below and has been taken from the Specifications for Statutory Grades of Canadian Grain, schedule of the Canadian Grain Act amended to August 1, 1973 and reproduced with the permission of the Canadian Grain Commission. For more details

on grade subgroups the reader is referred to the 1973 edition of the Official Canadian Grading Guide

Problems Facing the Japanese Buckwheat Industry

A. Supply

A sometimes major and recurring problem facing the Japanese buckwheat industry is one of supply and it is largely controlled by the supply and-demand situation of the previous year. Periods of scarcity and inflation are followed by periods of over production and deflation. However, supply has not been Japan's only problem.

B. Contamination

In the opinion of Mr. Takeo Shigeta, President of the Japanese Buckwheat Millers' Association, problems arising from contaminated shipments have ranked next to those of supply. Contamination has taken three forms, each of which will be discussed briefly.

1. Mixtures of old and new seed

Because old buckwheat (over a year old) has lost desirable quality, the Japanese dislike old crops. Being unaware of such quality deterioration, and thinking in terms of the same grades (age is not presently a factor in establishing a crop's grade), Canadian producers and exporters tended to mix old and new harvests and this had a detrimental effect on the reputation of Canadian buckwheat in the Japanese market.

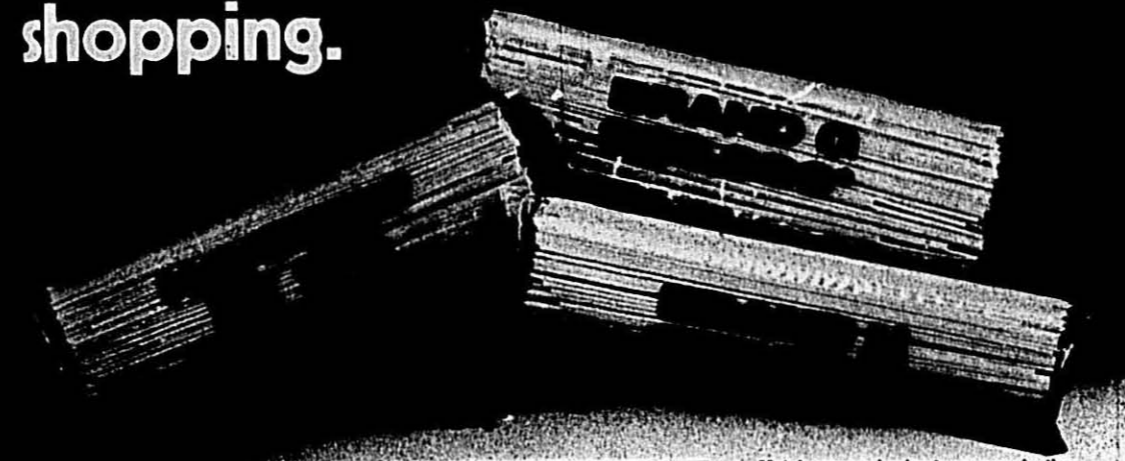
(Continued on page 22)

GRADES OF BUCKWHEAT (Canada)

Grade	Minimum Weight Per Measured Bushel In Pounds	Standard of Quality			Maximum Limits of Foreign Material		Total N of Exceed
		Variety	Degree of Soundness	Matter Other Than Cereal Grains	Other Grains		
No. 1 Canada	48	Any Domestic Variety	Reasonably sound, cool and sweet.	Practically free	1 %	1 %	
No. 2 Canada	45	Any Domestic Variety	Reasonably free from damage, cool and sweet.	1%	2 1/2 %	3 %	
No. 3 Canada	42	Any Domestic Variety	Excluded from the preceding grades on account of damage; may have a ground or grassy smell but not musty.	2%	5 %	5%	

THE MACARONI JOURNAL

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Buckwheat in Canada . . .

(Continued from page 20)

2. A wide distribution of seed sizes.

This could arise naturally and in cases where it did, the only solution to the problem was through breeding. More frequently, however, the problem arose when several different varieties were mixed to make up a cargo.

In Japan, a Canadian shipment of buckwheat after cleaning, had to be segregated into streams of equal size permitting it to be dehulled properly. Tokyo, our traditional variety, was routinely divided into five or more such streams. This increased the millers' production cost.

3. Foreign seed.

Canadian buckwheat cargoes often arrived in Japan containing high levels of weed (wild mustard, green foxtail, smart weed) and grain (barley, breadwheat, oats, flax) seeds. Cleaning operations increased the millers' overhead and decreased cargo sizes. Although it was often impossible to determine the source(s) of contamination, it was felt that cautions routinely applied to cereal grains could eventually eliminate the problem if they could be judiciously exercised by both buckwheat producers and distributors.

Buckwheat Milling in Japan

If given a choice of seed, the Japanese buckwheat miller would prefer buckwheat produced in northern Japan, then Chinese, which has a larger seed size than Canadian buckwheat, Canadian, Brazilian and perhaps, as a last resort, South African buckwheat, which is silver hulled. Canadian varieties of buckwheat do not have the size, seed uniformity and flavor properties of the buckwheat produced in northern Japan.

According to reports from the Nisshin Flour Milling Co. Ltd. Japanese millers believe that buckwheat eating quality deteriorates rapidly after harvesting and thus they prefer to mill their seed as soon as possible. However, if this is not possible, they may hold the shipment in cold storage (0-4°C) for no longer than two weeks to prevent any further flavor losses.

Buckwheat exported to Japan should have a low moisture content (12% or less), large uniform seed size, low percentage of foreign seed (1% or

less), be less than one year old and have a flavorful groat.

New cargoes are first cleaned of foreign seed, then, if necessary, brushed or polished to remove adhering flowers prior to sizing. The sized streams are then automatically conveyed to dehulling machines constructed from either carborundum disks or metal break rolls. Larger seeds dehull more readily than smaller ones and are therefore preferred. The thickness of the hull affects dehulling efficiency. Although the miller prefers those varieties with thinner seed coats because they yield more flour per bushel of seed, he recognizes that fragile seed coats are more difficult to remove and offer less protection to the seed during shipment and storage.

After passing through the dehullers, the hulls and groats are separated by air and/or sieves. The groats are now conveyed to buckwheat mills, closely resembling wheat flour mills, where they are completely reduced and divided according to particle size and into at least three streams of flour. Flour from the first break received the highest grade and subsequent fractions which are darker in color from increased amounts of bran and embryo, receive lower grades.

Visual examination of Chinese and Japanese buckwheat flours reveal that they closely resemble cake flour in particle size. To the author's knowledge quality data representative of the above analysis have never been published. Flour is processed immediately so that the maximum buckwheat flavour is retained.

Noodle Processing

Most of the flour milled in the manner described above is sold directly to noodle manufacturers who use it to make a buckwheat noodle called "soba." Buckwheat flour alone does not form a thick workable

dough and must be blended with breadwheat and soft wheat flour before a dough suitable for noodle manufacture can be produced. The manufacture process is outlined in Fig. 1.

Noodles are prepared fresh daily according to secret recipes. The noodles are precooked in unsalted water, drained and delivered to restaurants on bamboo mats in such a way as to equal an individual serving. Tradition binds many restaurants to specific noodle manufacturers. A restaurant customer may order his "soba" in a variety of ways—hot or cold, as a main or side dish with sauce and blended mustard or with soups containing fried shrimps and other additives—to name a few.

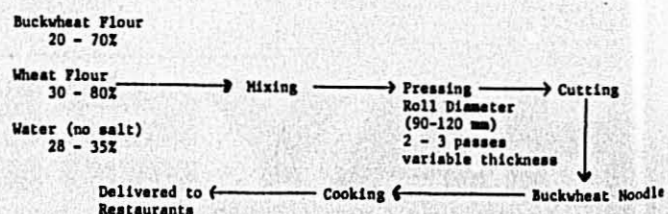
Noodle quality has never been objectively defined by the Japanese but is often collectively expressed as "fumi," a subjective estimate of aroma and taste. Other criteria believed to be associated with estimations of "fumi" are noodle firmness, color, stickiness, gumminess and surface smoothness. One company believes that the important flavor characteristics arise from interactions of the embryo and pericarp lipids and proteins, and that textural properties are controlled by starch. This has yet to be confirmed.

Future Prospects

It would appear that the Canadian share of the Japanese market could be maintained or increased if the desired product could be supplied on a continuous basis. Canadian buckwheat breeders are now concentrating upon the development of prolific, large-seed varieties. Although important, milling, processing and eating quality are often not considered in breeding programs because there are no objective means of measuring these variables. Japanese millers and oba

(Continued on page 24)

Fig. 1 Buckwheat Noodle Manufacturing Process



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Buckwheat in Canada

(Continued from page 22)

processors have recently funded a project at the Japanese Food Research Institute for purposes of defining buckwheat quality and developing tests to assess these criteria.

In order to assist Canadian plant breeders the required objective quality testing methods should be established in collaboration with the Japanese buckwheat industry.

The development of prolific, large-seed, high-quality varieties will not itself solve supply problems, nor will increasing the contract prices have a lasting effect. Changes in our present production and marketing practices must be made to ensure that Canada is in a better position to compete with other exporting countries.

For example, Canadian producers and exporters must become aware of the contamination problems discussed earlier and make every effort to deliver a clean quality-product or face the inevitable possibility of losing the Japanese market to China, Brazil, possibly South Africa and Russia.

Coupled with the above refinements in breeding, production and distribution efforts should be made to help the industry realize a more adequate return and a steady demand for its product. This could be accomplished through the development of domestic uses so that the industry is not as dependent on the export market. The industry would then be in a position to maximize its return from the export market and in times of over supply carry itself with the domestic market.

Japanese Student Studies Quality at NDSU

Although rice has been a staple food in Japan and other nations of the Orient throughout the ages, wheat products have been the staple food area where the action has been on Japanese grocery shelves during the last two decades. This trend, of course, has delighted U.S. wheat producers who have increased their share of this growing export market. U.S. wheat producers have developed a number of programs designed to help this healthy market growth continue—which brings us to Tomoyuki Hirohashi.

Mr. Hirohashi, a 1975 agricultural chemistry graduate from prestigious Tokyo University, is employed by Japan's Flour Milling Company in its Quality Control and Assurance Department. However, he is presently enrolled as a post graduate in the North Dakota State University (NDSU) Department of Cereal Chemistry and Technology. His stay in North Dakota is the culmination of over a year of planning by the North Dakota Wheat Commission and one of its affiliated regional overseas market development organizations, Western Wheat Associates. The objective of the project, to paraphrase a statement in the original project proposal, is to enroll one qualified Japanese flour milling technician for two years at the post-graduate level in the Department of Cereal Chemistry and Technology at North Dakota State University for the purpose of learning the overall quality aspects of North Dakota spring wheat. It is hoped that such an action will help to develop a better understanding of North Dakota spring wheat among Japanese flour millers and bakers, thereby promoting its increased usage in that market.

Investment in Market

For some time, the North Dakota Wheat Commission has felt that familiarizing a Japanese cereal technician with the unique characteristics of U.S. hard red spring wheat would be an excellent investment in the future of the Japanese market for that wheat class. Hirohashi's superiors at Nisshin expect him to gain responsibility and influence in the company and the knowledge he gains regarding U.S. spring wheat while studying in North Dakota will, hopefully, cause him to be a U.S. spring wheat advocate when he returns. Having a strong U.S. spring wheat advocate in the Nisshin Company could be extremely beneficial to North Dakota and other U.S. spring wheat producers. Nisshin is recognized as the pace-setter in the Japanese wheat industry and holds considerable influence on the Japanese Food Agency's wheat import and marketing policy (The Food Agency is the government entity responsible for all import wheat purchases). As a single, large bread flour supplier to all major bakeries in Japan,

Nisshin is very influential and enthusiastic in achieving further development of the baking industry. Each day the Nisshin Company mills approximately 7,650 metric tons (81,000 bushels) of wheat and its share of the Japanese bread flour market is more than thirty-seven percent.

Hirohashi arrived in the U.S. in June of 1977 and traveled to Denver to take a two month English language course at the ELS Language Center. Upon completion of the course he left Denver for Fargo and his planned studies on the NDSU campus. Hirohashi's course of study has been carefully structured by the NDSU Cereal Chemistry Department staff and his superiors at Nisshin to deal with specific areas. Subject matter for his graduate thesis includes maturation, how flour reacts to storage and how the quality of flour is affected when the flour does not go through a bleaching process. These specific research areas are of pertinent interest to the Japanese flour milling industry.

Company Benefit

Obviously the Nisshin Company feels that Hirohashi's North Dakota training will also be of benefit to the organization itself. As the Japanese student puts it, "My company needs someone with knowledge about U.S. hard red spring wheat production, quality characteristics and milling practices." He explains that because it is necessary for a member of Nisshin's Quality Control section to be knowledgeable about milling and baking, studying at the NDSU department is also a great opportunity for him personally. Hirohashi adds that he is extremely grateful to North Dakota wheat producers for providing this chance to become familiar with U.S. spring wheat milling and handling.

Hirohashi is especially looking forward to being in North Dakota during the actual planting—harvesting cycle. "I am interested in seeing how the farmers plant hard red spring wheat and what they do to insure quality," he explains. Hirohashi will also have the opportunity to observe variety development work during his stay in North Dakota.

By cooperating in the Hirohashi program, the Nisshin Company has again shown that it recognizes that the North Dakota wheat producer and the

Japanese flour industry have developed a certain interdependence since the early sixties. The market for U.S. spring wheat in Japan has increased dramatically throughout this period. A look at statistics shows an increase in Japanese U.S. spring wheat purchases from 6.1 million bushels in 1965 to a 1977 total of 23.9 million bushels. Japan has been the single largest overseas purchaser of U.S. hard red spring wheat for a number of years. Various factors have contributed to this market growth, including baking schools and consumer promotion programs carried on in Japan by U.S. based Western Wheat Associates, a lower freight rate to the West Coast for export wheat fought for and obtained by the North Dakota Wheat Commission and other state interests, and the fact that once the Japanese tasted bread, they just plain liked it.

Rapport

However, another factor which must be evaluated as an important contribution to the success of hard red spring and other U.S. wheat classes in Japan is the rapport that has been developed between Japanese wheat industry leaders and U.S. wheat producers and researchers. Nearly each year a group of Japanese millers visits North Dakota and other wheat producing states. Similar visits are made by officials of the Japanese Food Agency. Such delegations are extremely interested in learning more about U.S. wheat quality, milling practices and production problems. Teams of North Dakota wheat producers have also journeyed to Japan to tell the story of U.S. red spring wheat under the auspices of the North Dakota Wheat Commission, Western Wheat Associates and the Foreign Agricultural Service Branch of USDA.

The contacts made during such exchanges have produced an atmosphere conducive to a variety of cooperative efforts designed to be beneficial to both parties. The "Hirohashi project" is just the latest step in what has been and will continue to be a profitable relationship between the U.S. wheat producer and his Japanese customers.

Canned Tomatoes

Consumption climbed 19% between 1970 and 1976. Pizzas and Big Macs may have had a lot to do with it.

Study Causes of Grain Dust Explosions

Secretary of Agriculture Bob Bergland said U.S. Department of Agriculture engineers at Manhattan, Kan., are building special equipment to make a systematic study of grain dust explosions, as a continuation of their current grain dust research.

Engineers of the department's Science and Education Administration at the U.S. Grain Marketing Research Center, are patterning the equipment after that used by the Bureau of Mines in studies on coal dust.

Airborne grain dust, long a concern of both safety engineers and environmentalists, is believed the cause of recent explosions at large grain storage and handling terminals at New Orleans, La., and Galveston, T. x.

"We don't know enough about the conditions influencing grain dust explosions," Secretary Bergland said. "We need to know more about what causes the explosions and, more importantly, how we can more effectively monitor, anticipate and avoid these dangerous conditions."

How to Reduce Damage

Research engineers at the Manhattan center have been studying how to reduce the amount of fuel required for grain drying, measure and control dust generated from handling grain, and how to reduce damage from grain handling. They are now trying to develop instruments and methods which will measure both airborne and residual grain dust. The engineers also are studying the use of additives to minimize the emission of dust and trying to find possible uses or ways of disposing of grain dust.

Dr. Yeshajahu Pomeranz, director of the center, said recent research is concentrated on why and how much broken grain and dust are generated in repeated handling. A second area of study has covered what grain dust particles are made of and their size and shape.

"By studying wheat, corn, sorghum and rice dusts, we are trying to learn what conditions influence grain dust explosions," Dr. Pomeranz said. "We need to learn more about concentrations of dust, the size and distribution of particles, and related humidity and temperature conditions. Once we know more about these factors we

will try to establish why and how they combine to cause an explosion."

"Based on our research," Dr. Pomeranz said, "we will try to develop a monitoring device which can be installed in grain-handling installations which can warn of possible explosive situations. Thus operators can be alerted to evacuate or take precautionary actions."

Egg Review

According to the Crop Reporting Board the nation's laying flock produced 5.5 billion eggs during April, 3% more than a year ago. Layers on May 1 totalled 276,300,000, 2% more than the 269,600,000 a year earlier but down slightly from the previous month's number of 277,000,000. Rate of lay on May 1 averaged 66.4 eggs per 100 layers, compared with 65.7 a year earlier and 66.5 on April 1, 1978. Egg-type chicks hatched during April 1978 totaled 51,400,000, down 7% from a year ago. Eggs in incubators on May 1 at 49,800,000 were 2% above a year ago.

Egg Products

May prices:

Central State Nest Run—	\$9.90 to \$12.20
Southeast Nest Run—	\$10.20 to \$11.10
Frozen Whole—	37¢ to 40¢
Frozen Whites—	28¢ to 30.5¢
Dried Whole—	\$1.45 to \$1.60
Dried Yolks—	\$1.42 to \$1.54

Packaging Industry Makes Big Contribution to U.S. Economy

The value of packaging shipments will reach \$41.5 billion in 1978, a 9% increase over last year's figures, according to the U.S. Dept. of Commerce. The figures released in a recent Department publication indicate that the increase in value of shipments in 1977 was due more to the growth in physical volume rather than inflation. Packaging is expected to rank fourth among all industries in shipments for 1978. Automotive products leads the way with \$65.5 billion, followed by meat and steel products.



In Semolina and Durum flour, quality has a color. Pure, flawless gold. The color of King Midas Semolina and Durum flour.

It's the color we get in Semolina and Durum flour because we begin with the North Country's finest Durum wheat, and mill it in facilities designed *specifically* for the production of Semolina and Durum flour.

It's the color *you* get in pasta when you begin with King Midas Semolina or Durum flour, and it's your assurance that you've got the right start toward pasta with fine eating characteristics.

And from the time our golden King Midas Semolina and Durum flour start on their way to becoming your golden pasta, Peavey is following through with the fastest, most reliable service possible. And we're working to be better. Our modern King Midas Semolina and Durum flour mill at Hastings, Minnesota, rounds out a distribution network second to none.

It still comes down to this. We want you to keep putting Peavey in your pasta ... right along with your pride.

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King Midas Semolina and Durum Flour from Peavey, for Pasta with "The Golden Touch." Pure Golden Color. Great Eating Characteristics.



At the modern Peavey mill in Hastings, Minn., as in all the King Midas Semolina and Durum flour mills, Durum wheat receives all the extra milling, cleaning, purifying



and filtering processes that make Durum run on a Semolina mill something special ... processes that mean pure, golden pasta with fine eating characteristics. And at



the Peavey mills, automation of virtually all processes means that quality levels are maintained — all the way. We wouldn't have it any other way.

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Peavey Industrial Foods Group

Corrugated Performance Reviewed

"We do not believe that there are any packaging developments on the horizon which will take serious volume away from corrugated shipping containers," according to William Laimbeer, Chairman of the Fibre Box Association's Packaging Study Committee.

Laimbeer, Vice President of Owens-Illinois, Inc., and general manager of its Forest Products Division's box plant operations, reviewed the performance of both corrugated and competitive packaging materials at the Association's Spring Meeting.

"We need more data," he noted, "in the area of loss and damage." Railroads are currently paying 1.4% of their revenues in claims and the truck lines are paying 1.1%, with a very high percentage categorized as miscellaneous 'hidden damage.' "This, of course, is no help when we are trying to differentiate between the claims paid on goods shipped in corrugated and claims paid on goods shipped in shrink-wrap or other competitive packs," Laimbeer said.

In addition to the lack of data, "We have a basic problem with the rail and truck Classification Committees which seem to authorize new containers even though they do not protect the contents," Laimbeer noted. The Association, which monitors new package permits, plans to test some of the new designs in laboratories, challenge them before the Committees when warranted, and turn the data over to its members for presentation to potential users.

Protect the Product

"The users of corrugated . . . have as their principal objective the delivery of their product to the consumer in a safe condition," Laimbeer said. "If they save a few pennies through inferior packaging but deliver damaged goods, they want to know."

In the search for meaningful data, the industry turned to corrugated's largest customer, the food industry. But here, too, little is available.

One food warehouse study, conducted in 1975 by the National American Wholesale Grocers Association, showed that the average warehouse cost of reworking (repacking) about half its damaged goods and of absorbing the remaining loss was \$128,000 per warehouse per year.

"When you add to that the claim payments paid by the rail and truck carriers, you can easily conclude that . . . people simply do not realize the vast sums of money which are being expended," Laimbeer commented. "There is no way we will ever completely eliminate damage, but it certainly can be reduced far below its current level" with adequate packaging.

Warehouses Served

One of the Association's efforts to pinpoint areas and causes of damage involves physical surveys of warehouses. These have been conducted in various sections of the country for the past six years, according to Laimbeer, with both FBA's staff and member company personnel making inspections and interviewing the warehouse superintendents.

In the most recent survey, "the reaction of the warehousemen toward corrugated was very favorable," Laimbeer reported. "The main problem they noted is with items packed in corrugated which are nonsupporting, such as plastic bottles for liquid bleach," with most damage appearing in private goods.

Two other defects mentioned by the warehousemen in relation to corrugated were: (1) the flaps on end-opening containers are often not securely glued, tending to pop open; and (2) when glue is used to bond the boxes in a pallet load or on a slip sheet, the boxes are often difficult to separate due to either too much or the wrong type of glue.

One major defect noted by the inspectors themselves, Laimbeer said, was improper stacking of boxes on pallets. Overhang "creates considerable damage to goods," he noted, adding that corrugated's "inherent stacking strength . . . is very often dissipated when the boxes are not correctly positioned."

"If a food manufacturer or other user wants to get maximum utilization from a corrugated box and receive full value for his dollar," Laimbeer said, "he should use the box correctly."

As a result of these findings of frequent misuse, the Association is planning to develop educational materials for distribution by its members to their customers, Laimbeer said. Al-

though the format has not as yet been established, subjects will include box closure, palletization, selection of glue for unitizing loads, and loading of trucks and rail cars.

In regard to other packaging materials, the warehouse survey found an increasing use of shrink and stretch films to unitize bagged products. While this has made handling easier, bags remain the biggest warehouse problem.

The survey also showed that "general reaction to shrink-wrap was somewhat adverse," Laimbeer reported. Warehousemen claim that it is bad for automation, often spills its contents upon impact, and cannot be repackaged when damaged.

Use of shrink-wrap is not spreading appreciably, the inspectors found. "Our estimate stands that we have lost about 1% of our volume" to film, Laimbeer reported.

He went on to announce that a slide presentation would be developed by the Association stressing the inherent advantages of corrugated over shrink-wrap packaging.

The role of the Association's program, Laimbeer concluded, is to develop information on changes in packaging materials usage, to respond to threats to corrugated, and to help users of corrugated to obtain its full benefits.

Corrugated Shipments Up

"Shipments of fibre boxes in the first quarter have probably reflected efforts by businessmen to build trade inventories," which were depleted by higher levels of demand in the last two months of 1977, according to economist S. Paul Moscarello.

The Merrill Lynch Economic vice president cited the stronger than expected quarter in raising slightly the 1978 forecast for corrugated demand to 4.1% (from 3.9%). His projection was updated for industry executives at the Spring Meeting of the Fibre Box Association, whose members produce 86% of the \$6.7 billion industry's volume.

Either figure will mean a new volume record for the industry, whose 1977 shipments of 227.2 billion square feet were less than 1/4% below the 1973 peak of 228.1 billion.

"With consumption of all goods weakening somewhat in the first

(Continued on page 30)

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Vibrating Conveyors: Ideal for conveying materials gently without breakage. One piece stainless steel trays which are self cleaning meet the most stringent sanitation requirements. All units utilize corrosion free "Scotch Ply" reactor springs which can be washed down plus simple maintenance free positive eccentric drives. Capacities of up to 2500 cu. ft. hr. with lengths over 60 feet.

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Corrugated Shipments Up

(Continued from page 28)

quarter, inventories are probably now rising," Moscarello said. "But consumption is expected to advance sharply in the second quarter and, therefore, buying for inventory will probably continue through the third quarter."

"During the fourth quarter," he added, "consumption will ease, and it is possible that there will be an effort by businessmen to reduce inventories in order to control working capital requirements." His forecast for corrugated reflects a fourth-quarter decline, he noted, "But if activity does not weaken at that time, then annual shipments will probably be higher—by about 1/2%—than we are presently forecasting."

USDA Urged to Push Modularization

The General Accounting Office has urged the Department of Agriculture to take the lead in an effort to implement the practice of modular packaging—the sizing of all shipping containers in geometric proportion to each other—a move GAO feels will benefit all segments of the industry, and also ease the ultimate conversion to metrics.

The recommendation is based on the findings of a studies summarized in a 79-page report prepared by GAO, with sources of information including USDA, National Center for Productivity and Quality of Working Life and National Bureau of Standards.

The report reiterates that a consensus of food retailers and wholesalers feel modularization would improve productivity and space management, and reduce product loss. However, manufacturers, in a stance reminiscent of their original approach to the Universal Product Code system, insist they would foot the bill but reap few benefits from such a conversion.

The study reports retailer-wholesaler opinions varied regarding the potential savings available through modularization. One representative felt increased selector productivity would provide half the savings, and improved truck space use and damage reduction would each account for one quarter.

A spokesman for a second company felt warehouse space savings were the

most important benefit and then damage reduction and an overall efficiency increase. A third ranked damage reduction as the greatest benefit, followed by efficiency in warehouse and truck space and faster inventory control.

A representative of a large wholesaler noted distribution comprises 85% of wholesaler operating costs, with 50% of that for order selecting. As such, he views modularization as the single most important influence that could affect the industry.

Despite the predominantly negative reaction from manufacturers, a number of them surveyed predicted some benefits at their end. These include decreasing loading time in shipping and receiving, and reduced inventories of product and packing materials.

Hearings on Labeling, Dating

A joint Agriculture Department-Food and Drug Administration panel has set "sometime in late August" for a wide-ranging hearing on the need for nutrition labeling and open dating, and "deceptive practices" in the food industry.

In addition, the panel will seek comment on the USDA's long-stalled nutrition labeling proposal.

"The purpose of the hearings is somewhat general in that the panel wants consumer and food industry input on various 'food issues,' including such things as fortification, the listing of ingredients by percentage and so on," said Ronald Brewington, an official with the USDA's food safety and quality service.

"In addition, USDA hopes to get some good information from these hearings that will permit it to (enact) a good set of nutrition labeling regulations."

It is the agency's intention to issue final labeling regulations by fall, Brewington said.

Calling such action on the nutrition labeling proposal "long overdue," he noted it is still being revised to reflect comments and objections made since it was first proposed in 1974.

FDA has since enacted its own set of labeling regulations. These rules, however, do not pertain to meat and poultry products, which are regulated by USDA.

As proposed in 1974, agriculture's regulations set specific guidelines for the posting of nutritional information on meat and poultry products.

For example, food processors must calibrate a "serving" based on what "an adult male engaged in light physical activity" would need to provide him with the nutrient levels stated on the label.

The label must also tell consumers the amount of protein, carbohydrates, fat, minerals and calories supplied by 1 gram of the food.

The proposal also sets standards for the Recommended Daily Allowances (RDA)—such as 60 milligrams of Vitamin C—and stipulates that a good label state what percentage of this recommended allowance a person will receive in one serving of the food.

In addition, the meat and poultry product manufacturer would have to list a separate table on the label to reflect the food's nutritional value after cooking, or after the addition of another food product, such as milk.

Finally, the proposal mandates that meat and poultry producers submit their products to USDA for nutrition-content testing and label approval.

Metric Growth Slow

There has been a slow movement toward metrication in the food and grocery products area.

The American National Metric Council has established committees on metrication for dairy products, meats, food services, shelf-stable foods, frozen foods, and others. ANMC Program Administrator Michael F. Thompson explained recently that in moving to metrication "we also have additional problems or situations that have arisen over history. Issues, such as standardized package sizes, reduction of the proliferation of sizes, and others are involved with the change to metrication."

Currently, metric-size soft drink bottles are being sold by the following companies: 7-Up, which was the first with the liter, along with Coca Cola, Pepsi Cola, Shasta, and Dr. Pepper. The Bureau of Alcohol, Tobacco and Firearms has mandated metric sizes for wines and liquors, with a 1979 and 1980 cutoff date for these products, respectively.

This year will be critical to the future of food packaging, particularly plastic packaging.

Golden Grain Promotes Spaghetti Sauce

Among the many advertised products of Golden Grain is a rich Italian style Marinara sauce for spaghetti, macaroni and many other meat or pasta dishes. The sauce, thick and zesty, is available in 3 flavors—the original full-bodied Marinara sauce, a meat flavored sauce, and a third sauce with mushrooms. Each of these Golden Grain sauces is simmered for hours and cooled slowly to retain the full rich flavor of peeled Pomodoro tomatoes, olive oil, spices and Italian seasonings. The Marinara sauce comes in cans and in family-size 2-lb. jars.

Golden Grain Italian Style Marinara Sauce is regularly featured in Golden Grain newspaper and Sunset magazine advertisements along with the company's Lasagna, Spaghetti and other macaroni products. It is extra rich, extra flavorful—all ready to use and enjoy.

Around the World Promotion

Buitoni Foods Corp., S. Hackensack, N.J., is one of the participants in May's "Around the World in Tasty Ways" supermarket promotion, the biggest ever run in Metropolitan New York. Early reports from some of the chains backing the month-long sales event—A&P, Shoprite, Pathmark, Grand Union, Waldbaum's, Shopwell, Acme, Key, Food Fair—indicate that its goal of assisting the retailer in attracting a larger share of the total food dollar is being met.

In addition to Buitoni, represented with Pasta and Parmesan Cheese, other companies and products in the promotion which focuses consumer attention on the fun and relative low cost of eating international foods at home are: Atalanta Celebrity Brand Sliced Ham and Bacon, Bellacico Frozen Bread and Dough (Italian), Ehlers Herbs and Spices (French), Goya Canned Specialties (Spanish), Hygrade Meats (American), La Choy Products (Chinese), Lender's Bagels (Jewish), Old El Paso Taco Shells (Mexican), Seabrook Farms Mixed Vegetables (International) and Wasa Crisp Bread (Swedish).

The international campaign is being promoted to consumers through pub-



licity and newspaper advertisements featuring cents-off coupons from all participants. Fifty million of these are being made available over a two-week advertising period in major New York City, Long Island, Westchester and New Jersey dailies. All store locations have been provided with display mobiles and shelf talkers.

A tabloid sized flyer is being distributed to customers which gives recipes, and cooking and entertaining tips highlighting all the products in the promotion.

Included is a recipe which combines Buitoni pasta and fresh vegetables:

Spaghetti Primavera

- 1 lb. Buitoni spaghetti No. 3, cooked
- 1/2 lb. mushrooms
- 1 lb. small zucchini
- 1/2 package of frozen broccoli, barely cooked
- 4 tablespoons butter
- 2 cloves garlic
- 1/2 cup parsley, chopped
- 1 cup heavy cream
- 1/2 cup grated Buitoni Parmesan cheese
- salt and pepper to taste

Slice washed mushrooms and unpeeled Zucchini very thin. Sauté mushrooms, zucchini, cooked broccoli and garlic in butter over a high flame until all liquid has evaporated. Shake the pan continually to avoid sticking. Add cream, reduce liquid for 3 minutes. Toss the cooked pasta with the vegetable mixture. Season to taste, add parmesan cheese and toss. Serve immediately to 5-6.

The "Around the World in Tasty Ways" promotion was developed and is being coordinated by Zachary & Front, Inc., a New York public relations agency.

Weight Watchers Frozen Meals

Weight Watchers advertises in trade publications that their 18 meals with 33 facings takes only 4 1/2 linear feet in the frozen food cabinet.

It is claimed that these frozen meals return 34¢ to 59¢ gross profit per package to the retailer and that these items generate approximately 80% of their total unit sales at normal pricing, including the new Weight Watchers Italian Pies.

Other Italian specialties in the line include Lasagna, Ziti Macaroni, Cannelloni Florentine, Eggplant Parmigiana.

Heinz to Acquire Weight Watchers

Extending its push into dietary products, H. J. Heinz Co. said it has agreed in principle to acquire Weight Watchers International Inc. for about \$71 million, or \$24 a share for Weight Watchers' 2,968,348 shares outstanding.

Weight Watchers, based in Manhasset, N.Y., earned \$3.7 million last year on sales of \$39.2 million. The company operates and franchises weight control and weight-maintenance classes in the U.S. and abroad and licenses food manufacturers to produce food products under the Weight Watchers trademark.

Food Prices Relative

Despite today's higher food prices, consumers now pay less for food in terms of real buying power than they did 15-20 years ago—when food prices were considered reasonable. For example, in 1960 some 20% of consumer income went for food; today it's about 17%. Among industrialized nations, only Canada does better than the U.S.—in 1976, only 13.8% of national disposable income went for food. Italy, on the other hand, has to use the largest amount of disposable income (26.5%) for food, followed by the UK with 21.5%, Japan with 20.5%, and Denmark with 19.2%. Most of the others range between 16-18%. Developing nations can reach 50-75%.

National Macaroni Week
to be celebrated
October 5 to 14



The Resident Intern (Resident Intern) who works in hospital emergency ward is at the beginning stage of a long and demanding medical career. He spent his first Year of college and Year of medical school. He is the average age of the Resident Intern.

A Resident Intern will work at least one year and up to four years of experience throughout the job training. He'll work through weekends and holidays. He'll discover that time off is a precious commodity. Once he has gained the experience, he needs to be most likely in a group of doctors in a combined practice.

He's a Breadwinner

He's a Resident Intern (Resident Intern) in a hospital emergency ward. He's been working non-stop since coming on duty just before the dinner hour. A steady rain has made driving hazardous, and there's been more than the usual number of accident victims coming into the emergency ward.

He's tired and he's hungry. As usual, there's no time to take a leisurely supper at the hospital cafeteria. He'll follow his usual routine of having macaroni sent from the kitchen. He likes its taste, and it provides him with the energy he needs to keep the pace.

When he expends precious energy in a life-or-death capacity, ADM works hard to

replenish the energy through quality pasta flour.

ADM selects the finest durum and quality mills it into clean, golden semolina. The semolina is then shipped to pasta manufacturers in the industry's most modern conveyances. And for emergency delivery, ADM maintains a ready supply of first rate pasta flour. ADM also offers product tests to pasta manufacturers upon request.

The Resident Intern performs an invaluable service to our society. At ADM we strive to continually supply pasta manufacturers with the finest high energy blends, so that the Resident and Breadwinners of every category can perform their tasks under peak conditions.

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Baker's shortening, corn sweeteners, soy protein for the baking industry.

CLOSE ENCOUNTERS OF THE FOOD KIND

by Captain Stuart F. Platt, SC, USN

Deputy Commander, DPSC, for Subsistence and Commander, Subsistence Field Activities

At the 32nd Annual Meeting of the Research and Development

Associates for Military Food and Packaging Systems, Inc.,

Chicago, Illinois

You know, this is a world of close encounters. We daily face erupting new technologies, changing social conventions and an increasing need by our population for interdependence. Since my job is to feed all the members of the United States Armed Forces, I want to talk about close encounters—of the food kind—as they relate to the military services, other federal agencies and the academic and industrial communities.

Our service personnel are in every climate, from the middle east around the world to Diego Garcia in the Indian ocean, from North Polar Area to South Polar Area, patrolling the earth, skies, on the high seas and under every ocean. In many situations, they are accompanied by their families. Altogether, there are about nine million of them supported by my office. My job is unique for, as you know, it is not a market program survey, but national policy which decides where I am to send those boxes of beef and crates of lettuce before they spoil, and the ten thousands of other items which make up our shopping list.

Operating Criteria

We have a number of operating criteria. We must find the most economical way to feed our military personnel, whether they serve in the Alaskan wilderness or NATO defense lines of Europe. Within that economy are the other criteria: the food must be nutritious, it must be appetizing, and it must be tasty—and, considering the melting pot our nation is, it is appropriate that our menus include more ethnic food items. You may be interested to know that chicken is the favorite dish—or at least the most consumed dish—of our service people and milk is our most consumed product from a tonnage standpoint. This contrasts with our nation's school lunch program where pizza is the number 1 dish. My primary objective, and this is at the core of my

management philosophy, is the morale, vitality and health of the serviceman and woman from a nutritional strength standpoint. Our service people must be in a position to stand up to the extreme physical demands of wartime, should that ever be required. My job is therefore two-fold: Get the food to them, and assure them it is nutritious. The military food procurement system is undergoing considerable change. I want to address these changes this afternoon.

Why Were Changes Necessary

I already have told you of the scope of our operation, and given you a capsule definition of my job. My talk will focus on why changes were made necessary and why they will continue; the nature of our food operation; my personal philosophy; and solutions to problems that are underway. I also intend to shift the spotlight on you for a moment, and talk about the relationships—the close encounters—that exist, and of what I see in the future regarding these encounters as far as nutrition and commercial buying are concerned.

In order to do this, our operation needs good management tools. The old ways of doing things, as all of you know from reading about the Chile Senate Subcommittee Investigations, were not good enough. Problems of various kinds, particularly in beef buying, as you remember, were uncovered throughout the intricate and interconnected system that involves each of the Armed Services, other federal departments and private industry. In the past two years, much thought and effort has gone into re-vamping the defense Food Procurement Organization, and one of the chief elements to come out of it was the designation of one individual who is fully accountable for food and food alone. I am that individual, RADM Shepard and General Vaughan are my bosses and counselors. The process

for re-organizing the system has not stopped. It is continuing, with a real probability that our operation will be given increasing responsibilities. The road is not clear as to all the ways we will change. But change there will be and I want to address this shortly.

In the meantime, I want to put the spotlight on myself and my organization, so that you will have some idea of who we are when doing business with us. We have, in offices around the world, 1,300 civilian and military personnel, most of whom are located at the headquarters office in Philadelphia. The remainder are in field offices and storage and distribution facilities, comprising a complex, worldwide network. Additionally, we have many thousand contractor employees working directly for our subsistence operation in warehousing and shipping our stocks.

Complex Business Operation

Actually, perishable and nonperishable foods comprise almost separate business operations, and this is made even more complex when you think that we provide widely different support for two types of customer—the troops, and the patrons of our commissaries. So vast is this system and so complex in its worldwide integration with the systems of other services that within the past three years, it has out-grown its former role as a Directorate within the DPSC command. As of last December it now virtually became a command within a command, and the director's position has been expanded to Deputy Commander for Subsistence and Commander, Subsistence Field Activities. This is a new executive position—the one I hold—which has placed the subsistence operation in a much improved position to respond to the commander, DPSC, Director DLA and to our dramatically expanded global responsibilities.

(Continued on page 36)

THE MACARONI JOURNAL

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JULY, 1978

35

Close Encounters

(Continued from page 34)

The integrated system I mentioned above is geographically and conceptually awesome. It encompasses total responsibility for worldwide subsistence acquisitions, inventory management control and support of the Armed Forces. It entails assignment of delegable authority to me so that I may act for the commander of DPSC, or independently as a commander. The subsistence operation, less than three weeks after I moved into this new position, was designated as a procuring activity, and I was designated as head of this procuring activity.

Career Background

My own background, as you know from the introduction, is varied. Subsistence has meant problems, and I was no stranger to problems while on the staff of Admiral Rickover. My common background with construction and procurement of nuclear submarines and food is an ability—or so General Vaughan and others felt—to probe into the core and solve problems. So here I stand today, almost four months into my new job, wondering what tree I can find all these marvelous solutions on. I was told before taking this job that it probably is the toughest in U.S. Military Logistics. I want to assure you I have a dynamic interest in my job and am open to new ideas and your suggestions.

Exploring Solutions

Actually, we have been moving out in the exploration of solutions, particularly in the area of studying new ways of applying the classic rule of checks and balances. I have put an end to telephone solicitations and directed all phases of our major procurements be in writing. I have directed the standardization nationwide of price determinations for beef buying. I have transferred some purchasing responsibilities from my Philadelphia headquarters to my Kansas City Field Office. I have begun the establishment of tighter controls. More changes, and significant ones, are coming, and they'll be coming fast.

You will be interested to know that I personally review and sign each contracting officer's warrant. I consider carefully the individual's qualifications and sense of responsibility,

and inform them that their responsibility stems from me, and that while I am pleased to approve their warrant, I also can withdraw it. I spoke to you about controls. As these are imposed, our organization will become ever more capable of preventing problems of the kind the Chiles Committee and Department of Defense Task Forces uncovered.

Right now, you will be interested to know, we have underway a major study on our last meat type—hamburgers. We're looking at the right places to buy, the right times and what ought to be the right prices. We're trying to learn all we can about the market conditions so that we can institute mutually advantageous changes. These include leveling off the buy volumes, and attracting more vendors through greater competition, which will lead to more favorable prices for us.

Controls Expose Problems

Paradoxically, as the controls are imposed, they will have a tendency to flush into the open any problems still lying out of sight. These, and any others that might develop, human nature being what it is, will receive quick, corrective action from me. I am really impressed by the integrity of the vast majority of people with whom I deal—my own people, those in other agencies, and those in the private sector.

Other changes are being experienced by the defense food operation. These include the acquisition of major army depots in Europe and the trend toward buying commercial products and the transfer of meat and seafood origin inspection to other federal agencies. I look toward establishment of closer coordination in the procurement of all federal food buying, thus eliminating varying standards and sometimes competition within government for the same products. I hope to see established a real time feedback program, in which we can measure the serviceman's acceptance of the food we send to him. Most of you are familiar with our relatively new direct vendor delivery system.

Now it is time for me to shift that spotlight. One of the first things I learned when I filled this position last December was one of the cooperative relationship that exists between DPSC and private industry.

I want to build on that relationship. The need for close cooperation will become increasingly important as industry and the universities bring onto the scene ever new products, at the same time that we in military procurement move ever deeper into the practice of buying commercial items off the shelf. With us, you know, this practice began the first week of April with seven meat items being transferred from military to commercial specifications. Both my agency and USDA have been learning much from each other as USDA assumes the role of our agent for source inspection of meat products.

Conservative on New Products

Often I have said that I am conservative in my views of new products. My reason for this goes back to the one word I've probably used most since I took this job: Nutrition.

There are many viewpoints on nutrition. Take Balzac, for example, the great 19th century novelist who was, unfortunately, a coarse man and large eater. At one meal he devoured a dozen cutlets, a duck, two partridges and 110 oysters. He topped this off with 12 pears and a variety of desserts. Not bad. Greta Garbo, the legendary actress, preferred to eat simple bread with unsalted butter, cheese and ham. She also liked steak and huge green salads, accompanied by the drinking of beer or vodka. General Ulysses S. Grant, on the other hand, during the Wilderness campaign, was content to make a meal of sliced cucumber with a cup of strong coffee—one cup being called full ration. Thinking on this, I conclude for a variety of reasons, some dealing with food, I still like Greta Garbo the best.

Viewpoint on Nutrition

But back to where we were, and to a viewpoint on nutrition that is harshly realistic. The problem really is very simple. We are one of two global powers. In order to stand up in an arena of prolonged conflict with any other power, we have to be flexible, and from a subsistence standpoint be ready instantly to redirect our pipeline to any spot on the globe. We cannot pick and choose the places where we send our food. The food must go where our forces go. When I think of our encounters with all the new commercial foods available, I

worry about the little time we have had to evaluate their quality.

As we move into the acquisition of more and more commercial items, I envision a kind of procedure where we in the military formulate our specifications for the minimum overall nutritional requirements, and then go into the commercial world and seek competitively the foods that already exist there. A consequence of this encounter will force a kind of de facto products list. On it, I must assure will be an abundance of products that are nutritional, tasty and attractive. I must cause a few limits on other items.

I'm sure by this time you see where my thinking is taking me—to the point where the military—our food mission encounter—becomes a pacesetter.

Military Has National Impact

What we do in the military has national impact, to the extent it serves as a standard. The de factor list inevitably would become a model for emulation by, for example, county institutional districts; state prison systems; local school districts; hospitals; boy and girl scout camps; and so on. Consumer groups and food columnists could use it or work with it as a reference point. In short, I assume we are, and our encounters, will be a silent force in shaping wholesome nutritional habits nationwide.

Surely, with this extended application in mind, the commercial commodity acquisition program becomes much more exciting than seen in its original scope. We know you approve our plan to buy commercially. We hope you continue to approve of this encounter when you discover we intend to buy intelligently.

New Combination Ration

I have spoken of the close relationship that exists between us. I cannot let this occasion slip past without commenting on the wholesome, mutually profitable close encounter between the military and the private sector in development of the new combat ration we soon will be giving our troops. This ration is called the MRE, or Meal, Ready-to-Eat, that is far superior to anything that has gone before. To us in the Defense Department, the MRE program is important, alive and well. I plan, by the way, to announce shortly information on our

first proposed buy which I estimate at \$64 million. This is forecasted to be a \$100 million a year DOD program for many years to come.

We need to continue vigorously this pioneering attitude in food.

Those of you who are university people in the audience, I want you to know that I regard your research into new technologies to be one of the most important facets of our modern world.

Understands Private Problems

Those of you in industry should know that I understand your production and capital resource problems. It is not an easy thing to bring out a good new food, such as the MRE. Neither I nor anyone in the military wants you to take an unfair share of any risk financially because of your desire to be supportive of military needs. We do need financially healthy contractors out there in our industrial base. However, we do feel that as you become a little more adventurous, you will share in the benefits of development of such an important new product; after all, new products like the MRE potentially have vast commercial applications and are really a strong contribution to the strength and mobility of the armed forces.

Intrigued by Fast Foods

One area that is intriguing to me is fast foods, something that is making a profound imprint upon our society. This modern phenomenon must be taken into consideration in our military food program, for we cannot simply take a young man out of the mainstream of American society and impose new habits on him. If he wants fast foods these should be made available to him, I believe—but, and this is an important but, to all of us here—only if these foods are nutritious. The man and woman in uniform should have the choices ranging from the mess hall to the vending machine, for we cannot ignore an American's right to choose any more than we can ignore changing social conventions.

Remember—and I'm speaking as one of your largest customers—it is important that we regard each other with the respect that comes from a professional and businesslike relationship. It is important that you understand I am pledged and must be ready to support on an instant notice,

our Army strike troops, Marine combat units, Naval combat and Amphibious Lift Forces and Tactical Air Forces at any point on this globe. Our encounter should be a relationship of cooperation, trust, integrity and love for country. I want to trust all of you and need all your support.

Above all, it should be a relationship that sees as its end result a well and economically managed defense food program leading to the good of healthy and strong bodied servicemen and women, who could be your sons and daughters.

Thank you for this pleasant, close encounter.

Risk/Benefit Concept Applies to Food Supply Also

Although there is a widespread belief that there should be no hazard whatsoever associated with the food supply, the idea of food safety includes a constant comparison between risks and benefits, according to the Institute of Food Technologists.

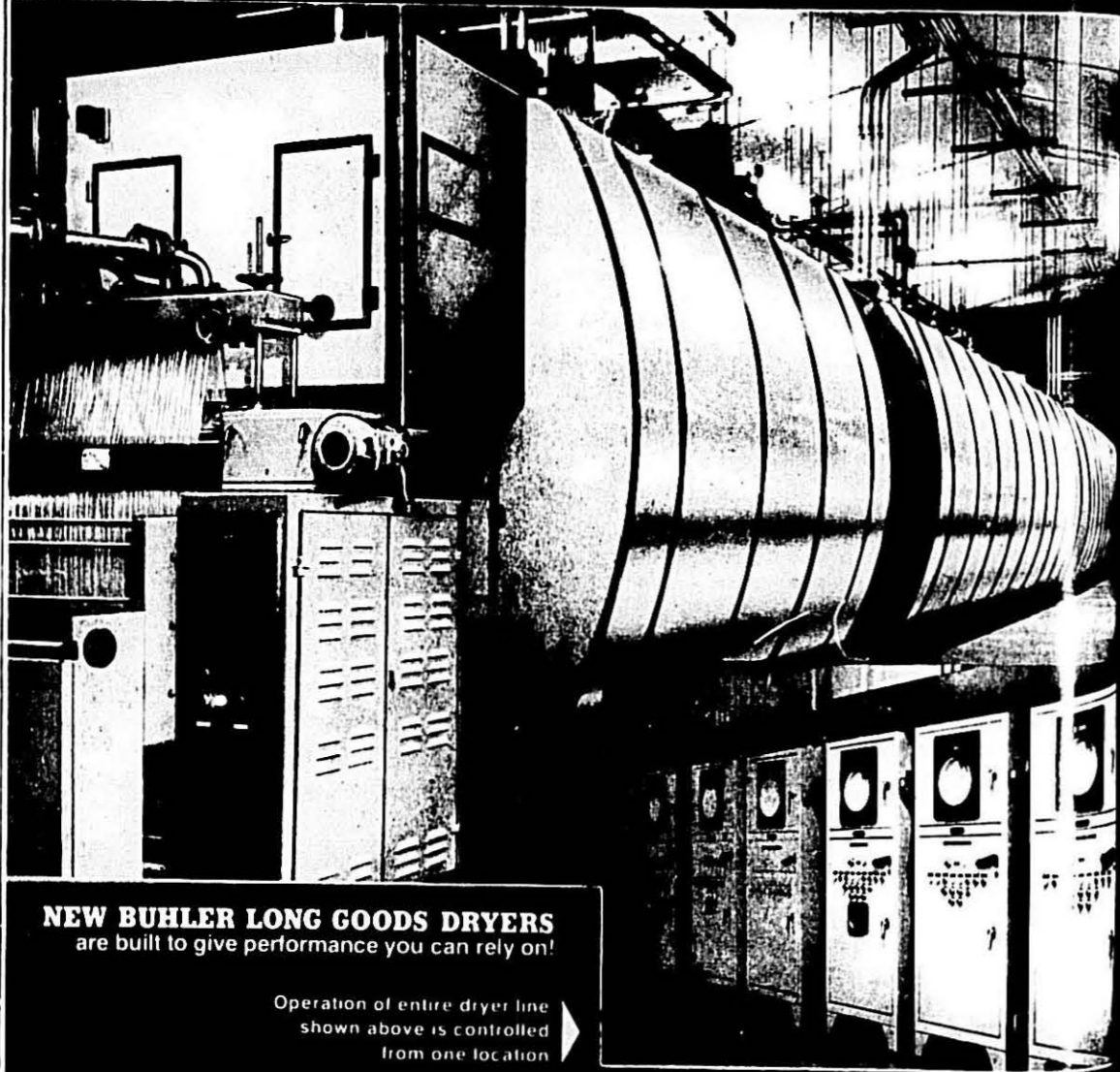
The risk/benefit concept is causing much debate among research scientists and regulatory agencies, according to IFT, a scientific society representing some 18,000 members. In a newly released Scientific Status Summary, "Benefit" is defined as anything that contributes to an improvement in a condition, while "Risk" is divided into the categories of "vital" and "non-vital." In developed countries, risks from food are normally far from vital or life-threatening, but zero risk or absolute safety in any area, including food, is unattainable, according to the Summary.

Goal: Absolute Safety

"The goal of absolute safety is a worthy one," the IFT Summary went on, "and some industries have approached it. For example, more than 800 billion units of commercially canned food have been produced in North America since 1940, with only five deaths attributable to botulism from that food." Yet in attempting to prove absolute safety for a process or ingredient, "the best we can ever hope for is to show no harm in every situation attempted to date, or no harm in the situation in which a material is useful."

(Continued on page 40)

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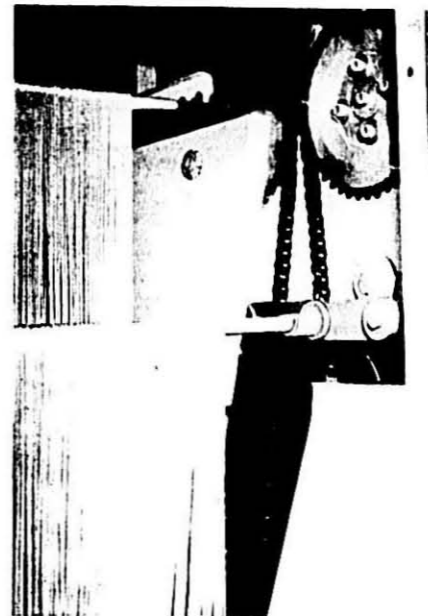
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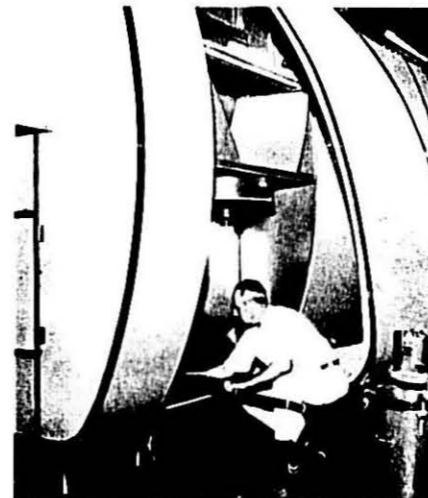
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Risk/Benefit Concept

(Continued from page 37)

The Status Summary describes a number of situations in which attempts to insist on absolute safety have deprived consumers of demonstrable benefits without providing freedom of choice, and it urges that a broad-based judgement as to "acceptable risks" be part of any regulatory decision. Among these instances is the proposal to ban saccharin, and questions as to whether (and how) to increase the iron content of the diet. Iron-deficiency anemia is relatively common and could be alleviated by increased supplementation of the food supply. However, a very small proportion of the population suffers from a condition known as hemochromatosis, in which they absorb more iron than they need. They could thus be endangered by increased amounts of iron in bread, for example, while most consumers would benefit.

Risks from Food Additives

The Summary also points out that widespread attention is being paid to possible risks from various food additives, although far less is known about comparable or greater risks from natural components of the food supply. "Applying the Delaney clause to naturally occurring carcinogens in food would, in many cases, make specific foods unavailable," the IFT Communicator stated. "Since there is ample precedent for setting a tolerance level for a natural carcinogen in food . . . it would seem that similar reasoning could also be applied to foods containing added chemicals, if the risks were judged to be low enough."

Dilemma of Compounds

The Summary describes the dilemma posed by compounds such as DES (diethylstilbestrol), used to fatten cattle at a faster rate than normal feeding practices would permit. DES is known to be carcinogenic, as are almost all estrogens. Yet estrogens are produced in the human body and are naturally present in many food stuffs in much larger quantities than ever found in livers of cattle fattened by this technique.

Decisions require comparison of the valuable protein produced at a saving of almost 8 billion pounds of grain

feed per year vs. the predicted but undemonstrated slight increase in disease.

According to the Summary, produced by IFT's Expert Panel on Food Safety and Nutrition, "The ability of scientists to detect minute quantities of chemicals has outstripped their ability to interpret their findings. Chasing an ever-receding 'zero' level with improved analytical instruments could bring you to the ultimate questions: 'Does the presence of one molecule of a carcinogen constitute grounds for removing a food from the market place?'"

Although it doesn't propose a final solution as to how risk/benefit decisions should be made, the IFT Expert Panel points out that "Pressure on food production is increasing each year, and we will soon reach the point where every technological concept in food availability will be needed to keep up with population growth. The need for a realistic approach to the risk/benefit problem will thus become even more important."

Business Education Needed

"Businesses do an excellent job of training employees to do their jobs, but a terrible job of educating them about how business works in our economic system," Harry K. Wells, Chairman of McCormick & Co., told the annual Management Recognition Night of the Personnel Association of Greater Baltimore.

"You've made the well-trained American worker the envy of most of the world. But you and I have done a miserable job of teaching our employees how business works."

Mr. Wells, Chairman of the Board and President of the Baltimore-based international producer of seasonings, flavorings and specialty food products, was honored at a dinner at the Hunt Valley Inn here and was presented the 1978 Scroll of Appreciation for services to the business community.

He declared:

"As managers we've made the mistake of assuming that because our employees work in business they also understand how business works. We have to look no farther than the current list of regulations to see what a tragic blunder that has been."

Mr. Wells was referring to those wasteful federal regulations which, he said, by the administration's own admission, cost \$130 billion a year.

One reason so many regressive federal regulations exist, Mr. Wells remarked, is that business carelessly assumed that if it successfully performed needed services for society, it would be appreciated and allowed to operate in the most effective way possible.

Others Work Against Business

"Unfortunately," he went on, "while we in business were busy building and nurturing the greatest economic system the world has ever known, others were working against us under the misguided notion that the public and the private sectors were the same."

"Those of us in business sat back while the social and economic initiative was assumed by the public sector. These regulators were sure that only the government knew what the country needed, that only they could solve the country's problems, that only they knew how and where to spend taxpayers' money."

"Those of us in business watched while they decreed larger and larger budgets which demanded larger and larger taxes. We watched while they put forth an endless succession of unworkable welfare schemes and vast investments in utopian projects which have created endless bureaucracies dedicated to running the government at the private sector's expense."

Urges Nonpartisan Programs

Mr. Wells called on management to promote nonpartisan political action programs and to encourage businessmen and businesswomen to become "new activists" to fight unreasonable government regulations.

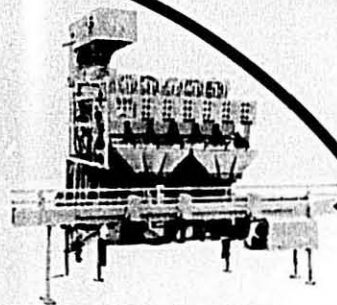
He also challenged management to develop and promote economic education programs. He said:

"Don't you think employees ought to know what makes your business operate successfully and how it makes a profit? No one has a better story to tell than we do in American business. But who's going to tell it unless you and I do?"

"Who's going to translate it into everyday terms Americans can understand unless you and I do? No one has a better system than our free market system. But who is going to sell it unless you and I do?"

packaging automation

FIVE MACARONI/NOODLE IDEAS

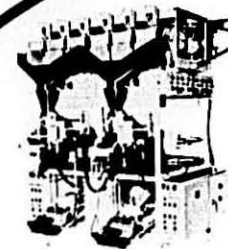
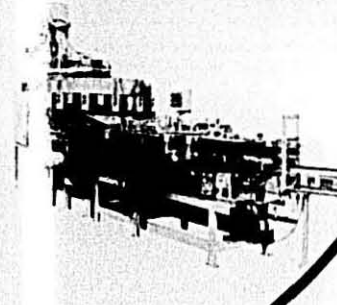


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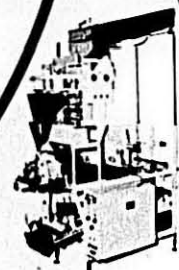


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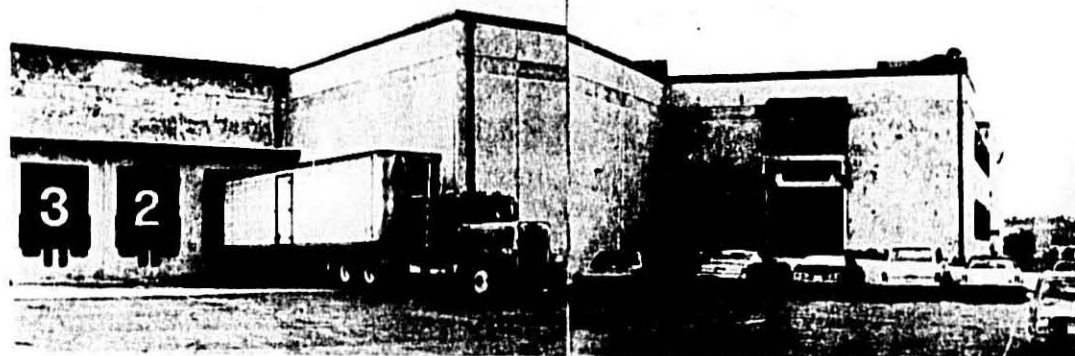
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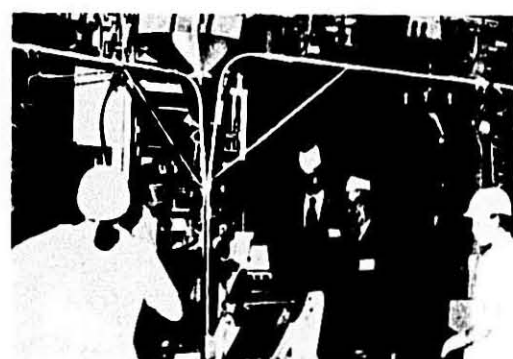
Plant Operations Seminar in Kent, Washington



Major Italian Foods of Kent, Washington (suburban Seattle) has a brand new plant with dock facilities on the left and main entrance on the right. Offices are on the first floor with a reception area above complete with kitchen. The staff prepared a delicious luncheon assisted by members of the Merlino family. After the plant tour and discussions on energy conservation and quality assurance programs, the group was bussed to Everett through the scenic countryside to the Boeing 747 plant, largest industrial complex under one roof.



John William of Western Globe Products points out an interesting conveying connection.



Richard Utley (locking around operator), Harry Wann and Reinhart of Wright Machinery Company demonstrate their equipment.



Chairman Ernest Merlino, Sr., leads a group on plant tour.

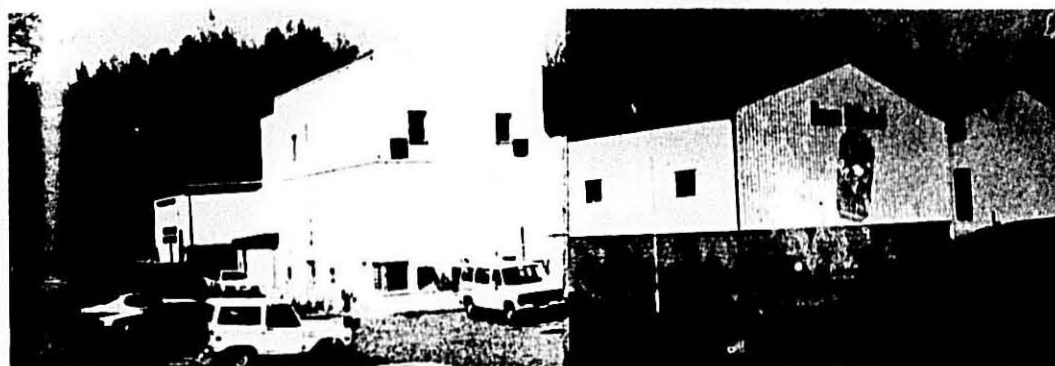


Jennifer McBane and Bob Sanborn head up Quality Control.

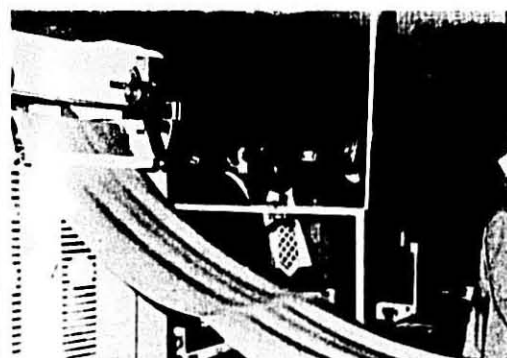


President Ernest Merlino, Jr., explains a particular operation.

Plant Operations Seminar in Millersburg, Ohio



Len Maid Noodles in Millersburg, Ohio is in the heart of the Amish hill country, eighty miles south of Cleveland. The Reining Family were originally in the restaurant business serving chicken and noodles and biscuits. Now they just make the noodles. Here, too, luncheon was served at the plant with noodle casseroles and salads. After a tour of Amish industry—cabinet makers, harness and buggy shops, cheese factory, there was a reception back at the Reining home atop a hill overlooking beautiful landscape.



John Zito of Clermont Food Machine Co. shows how noodles are moved.



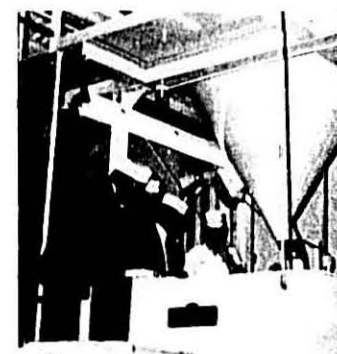
Delano Vericchio of Wright Machinery shows D in Litterer Creamette Co., a packaging operation.



Len Ballas of Ballas Egg Products describes egg handling operations.

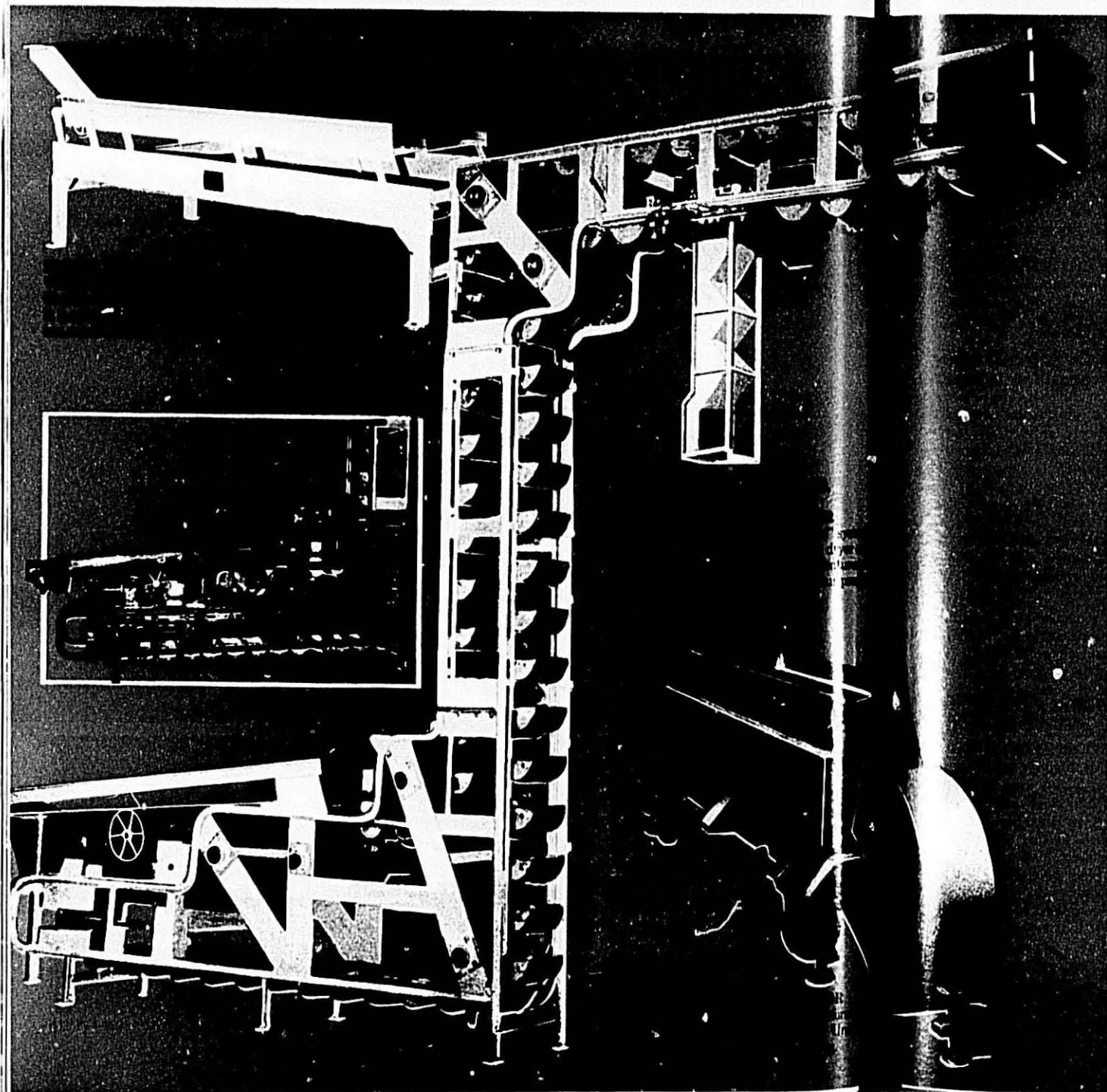


Duane Ahrens, Paul Reining and Luigi Grassilli.



Ted Zuecher in white uniform demonstrates mixing operation.

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Electricity and You

By Robert F. Thompson
Regional Safety Manager
Michigan Mutual Insurance Company

About 65 percent of all electrocutions are the result of 110 volt current. The reason is that few people respect 110 volts of electricity because they handle it many times per day in some way, in drop cords, light cords, extension cords, hand tools or machines in the shop and appliances in the home. It is our everyday workhorse. Because it is, most people don't realize the dangers involved.

If we see a switchbox or line marked 220 volts or 440 volts, we immediately respond to the fear of being electrocuted. Fact of the matter is, 110 volts can be just as deadly.

Most electrocutions are caused by defective equipment. Cords probably rank number one. Too many times the ground prong is removed from the plug or a so-called cheater plug is substituted. This happens both in the home and in the shop. Many times cords in the shop are broken, exposing bare wire. This defective equipment should receive immediate attention from the service man or department.

You may have a cord, tool, or appliance at the same spot doing the same job many times before. Changing circumstances can affect your exposure to danger. This time the floor may be moist or wet. Maybe you have been perspiring heavily and your clothing or shoes are moist, setting up a positive ground. Circumstances can and do frequently change, and there is absolutely no way of knowing in advance whether your body condition is right to pass a fatal amount of electricity.

There are several precautions you can take to prevent electrical shock. The precautions are so simple—they seem all so unimportant—that they don't inspire many people to be alert. That's where the danger lies.

A few of these safeguards are:

1. Never attempt electrical repairs yourself. If you are dealing with an appliance, do not introduce foreign objects to this appliance until it is unplugged. If it's a home appliance, call the service man. In the shop, call the maintenance department.

2. Before you work with electrical equipment, make sure your hands, clothing, and feet are dry. If you have to work on a damp or wet floor, wear rubbers. Do not stand on cardboard as it will soon become soaked.

3. Before you plug in a tool, drop light, extension cord, or other machinery, examine it and the cord and plug for visible defects. If you find a defect, forget about using the unit. Have it appropriately serviced at once.

4. Make sure you plug into a grounded socket. And make sure your unit is grounded either by a third prong on the plug or a ground wire.

5. When you connect the plug, see that it is properly protected. If the cord has to be placed across a walkway or aisleway, protect it against damage, and also make sure it does not become a tripping hazard.

6. If anything goes wrong with a piece of electrical equipment being used—if you get a shock, or if it becomes damaged or the cord comes loose—turn it off and see that it is properly serviced before it is used again.

Don't take chances! Remember, more people are killed by 110 volts of electricity than by higher, feared voltage.

FDA Cameras? Court Test Proposed

The need for a court test to decide whether the Food and Drug Administration has the right to use cameras in its food inspections was indicated by FDA and industry speakers at the Food and Drug Law Institute's annual educational conference.

Two FDA staffers—Seattle Regional Director James W. Swanson and Associate Chief Counsel Robert W. Spiller—defended the right of inspectors to take photos.

Mr. Spiller said that photographs "are undeniably a reasonable, practical, accurate way of recording conditions in an inspected facility" and FDA does have legal authority to use photos as a reasonable part of an inspection.

However, Mr. Swanson said that while inspectors will make every effort to convince those being in-

spected to allow photographs, "if you still object the inspector is instructed to put his camera away and continue with the inspection without use of the camera."

FDA's right to use a camera was strongly disputed by Kraft Vice President Dr. Channing H. Lushbough and Washington Attorney Danie O'Keefe.

Dr. Lushbough explained that it is Kraft's policy to prohibit both photography and oral tape recordings during a plant inspection and that the firm questions FDA's assertion of authority in this regard. He explained that Kraft is "sensitive to the inadvertent disclosure of trade secrets which such practices may entail." He pointed out that under the Freedom of Information Act competitors could and would request copies of such photographs and transcripts of such conversations.

He said that Kraft believes "it is inappropriate and improper for the FDA to direct its inspectional staff to request information to which FDA is not clearly entitled by statute. The effect of such instructions is that the FDA positively encourages its investigators to entice and persuade the persons and companies whose plants it inspects to incriminate themselves." "Seen calmly and objectively," he said, "this practice risks adulterating our working relationships and the moral atmosphere. . . ."

He recommended that FDA "seriously consider brief prescheduling for its plant inspections." By the word brief, he explained, "we mean a period of perhaps no more than four hours' advance notice."

Responding to the FDA's, attorney O'Keefe said he was "frankly appalled that an official government manual would urge its employees to attempt to cajole plant personnel untrained in the law into providing evidence in this unseemly manner. While there may be no obligation to warn plant officials or advise them of their rights, the procedure outlined here, complete with shallow threats, goes well beyond what I would expect from our government."

Mr. O'Keefe reminded his audience that FDA's inspection authority extends to a reasonable inspection of food establishments, pertinent equip-

(Continued on page 48)

THE MACARONI JOURNAL

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FDA Cameras?

(Continued from page 46)

ment, finished and unfinished material, containers, and labeling." FDA's authority with regard to food establishments," he added, "generally does not legally require a company to permit access to complaint files, internal quality control procedures and quality control audits, or processing records. The agency has only questionable authority to inspect records under the good manufacturing practice regulations and to take evidentiary materials such as photographs. Low-acid canned foods are a special case."

He warned against signing statements relating to the inspector's observations and giving information or data to FDA inspectors, since "it may be used against you in court and that it may be publicly available."

FDA Stays Macaroni Rule

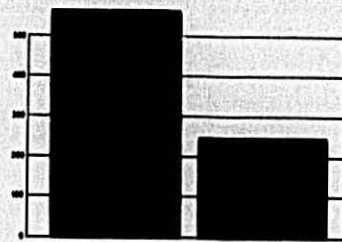
Food and Drug Administration, after a series of administrative delays extending back to 1972, has issued formal notification that new standards of identity for enriched macaroni products with fortified protein have been stayed.

The proposed standards have in effect been stayed since late 1972, when F.D.A. received several objections and requests for public hearings on the regulations. An F.D.A. spokesman said that formal notice of the stay had been delayed pending final completion of new administrative procedures at F.D.A. and by other "internal problems."

The formal notice published in the Federal Register states that "during the period of the stay, the product defined in the stayed regulation may be introduced into interstate commerce with appropriate labeling as a nonstandardized food." The F.D.A. spokesman said interested companies had been so notified at the time the stay went into effect in late 1972, and that publication of the notice in effect gives public notice of the action.

As proposed in September, 1972, the standard of identity for enriched macaroni products with fortified protein including the following provisions:

1. Set the protein content at not less than 20% by weight.
2. Set the quality of the protein at not less than 95% of the quality of the



milk protein, casein.

3. Provide that milled wheat is the principle ingredient.

4. Permit the use, in part, of flours or meals made from non-wheat cereals or oilseeds.

Microwave Saves Energy

It is estimated that the U.S. pasta industry alone would save 80,000 barrels of fuel oil or 650,000,000 cubic feet of natural gas each year if it were to combine microwave drying with conventional drying methods. That's just one example, say experts, of energy savings possible with industrial microwave heating.

Lockheed Aircraft cut energy use by 583% in switching from conventional to microwave drying of ceramic blocks for spacecraft heat shields. Energy savings to 70% are cited for doughnut proofing. Gentry International, Inc. cut energy costs of one stage of onion drying by 30%. Pre-cooking chicken with microwaves used 40% less energy than conventional pre-cooking. Bacon, pre-cooked with microwaves, when sold through markets, and to restaurants and institutions, cuts final cooking time to 30-60 seconds, providing huge energy savings if applied to millions of stoves nationwide. Significant energy savings are reported for microwave drying, bread baking and wave tempering of frozen foods, fish thawing. Other possible uses are for laminating plywood, roasting coffee, cocoa beans and peanuts.

In Macaroni Drying

According to The Macaroni Journal over two billion pounds of pasta are produced each year in the U.S. Two of the largest producers measured condensate (reportedly the most accurate method) to pinpoint an average 248 BTUs (heat units) required with microwave drying, whereas 564 BTUs were needed for the same drying by conventional methods. Since some

conventional drying still must be used with microwaves, overall energy reduction is only around 25%. Golden Grain Macaroni Company, whose president, Vincent DeDomenico, is former president of the National Macaroni Manufacturer's Association, is one of the firms that did the testing.

Slow acceptance of industrial microwave heating is blamed upon the new concepts required. Microwave heat does not creep into the product, but is generated simultaneously throughout the product wherever there is moisture.

Leader in Field

A leader and pioneer in the design and manufacture of such systems is Microdry Corporation of San Ramon, California. Their president, Frank Smith, points out that U.S. industry accounts for almost half (about 43%) of our energy use; so microwave heating, where applicable, could save huge amounts of gas and oil. Although it costs more to create microwave heat, its efficiency is much greater (around 60-65% from power line to product heating, whereas conventional heating sometimes is quoted at around 30-50% efficiency). For nearly twenty years Microdry has tested, and compiled data, on hundreds of microwave heating applications. This information is available to manufacturers from Microdry Corporation at 3111 Fostoria Way, San Ramon, California 94583.

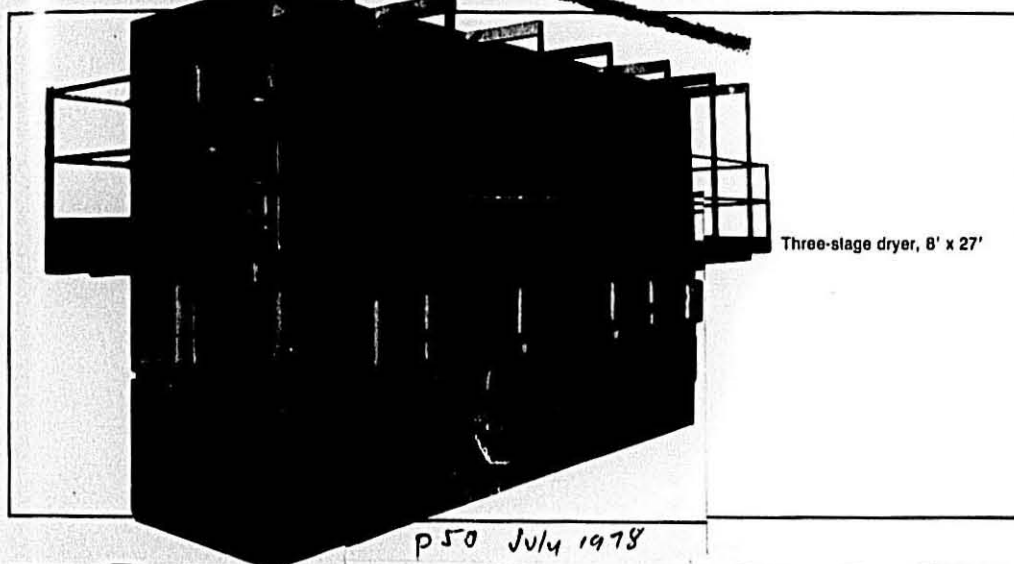
High Temperature Drying

Braibanti & Company of Milan, Italy has announced it has solved the problems inherent to high temperature drying of all short pasta shapes. The process applies to long goods as well.

At the IPACK-IMA Show last fall they presented a continuous line composed of automatic press (model 800-C, shaking preliminary dryer TL/1000, pre-dryer model 1000-24/8, and finishing dryer model Teless 13/9. These lines have a production range from 5 to 50 tons per day and more for each particular shape to be marketed.

More than twenty of these lines are presently operating in Italy and abroad while others are under construction.

THE DRYER OF THE FUTURE



In a 1973 survey of the entire pasta industry by an independent research firm, 67% of respondents stated that a combination of microwave and conventional drying is "the method of the future."

Three-stage dryer, 8' x 27'

TODAY'S DRYER

The pioneering is over! The microwave dryer is standard 24 hour/7 day equipment for any size macaroni or noodle plant

Up to 4 times the production in the same feet of floor space (a bargain in itself with construction costs in the \$20 sq. ft. range).

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Most easily sanitized dryer. Hose it down or steam it clean.

Makes a richer looking product; no blanching.

Energy savings reported: 52% less BTU's, 6% less KW's.

Lowest downtime. "We keep an accurate record of all downtime and express it as a percentage of time down to time scheduled. Microdry leads our industry at less than 2%" — P.M. Mgr., leading mid-west operation.

"All future equipment will be Microdry" — Tech. Dir., large pasta plant.



Compared with conventional dryer

Units in these lbs./hr. Capacities: 1500, 2500, 3,000 and 4,000.

Operating today at: Golden Grain, San Leandro (2 units); Golden Grain, Chicago (2 units); D'Amico, Chicago; Catelli, Montreal; Gooch, Lincoln; O. B., Ft. Worth; Lipton, Toronto (2 units); Gilster Mary Lee, Chester, Ill.

Completely fabricated and assembled in our plant. All stainless steel construction. Complete microwave and process control instrumentation systems with the unit — no extras to buy. Personnel generally can learn operation in one day. Continuing consultation privileges with Microdry.



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JULY, 1978

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Hershey Acquires Procino-Rossi

Substantially all of the assets of Procino-Rossi Corp., Auburn, N.Y., were sold to San Giorgio Macaroni Co., Lebanon, Pa., a subsidiary of Hershey Food Corp., and strong indications were that C. F. Mueller Co., Jersey City, N.J., a subsidiary of Foremost-McKesson Inc., San Francisco, would soon conclude negotiations for the acquisition of d'Amico Macaroni Co., Steger, Ill.

Procino-Rossi, with processing capacity of about 80,000 lbs daily, produces pasta for retail, industrial and institutional markets. Nicholas A. Rossi, formerly president of Procino-Rossi, will remain with San Giorgio with sales responsibilities. The company does business mainly in upstate New York. The San Giorgio subsidiary of Hershey, whose president is Joseph P. Viviano, also includes the former Delmonico Foods Co. of Louisville, Ky.

D'Amico to Foremost

D'Amico Macaroni Co., with capacity of about 30,000 lbs a day, manufactures pasta products for retail, institutional and private label markets. C. F. Mueller Co., purchaser of D'Amico, was acquired by Foremost in October, 1976, from New York University for \$115 million in cash. Mueller is the nation's largest pasta manufacturer. Lester R. Thurston, Jr., is president of the company.



Antonio S. Vagnino Dead

Antonio S. Vagnino, co-founder and retired vice president of American Beauty Macaroni Company, passed away in Denver on April 21, 1978.

Born in Denver August 29, 1890, he attended Denver schools and in 1909 started the company with his brothers. He was a founding member of Christ the King Catholic Church, a life member of the Lions Club and many civic and business organizations including the National Macaroni Manufacturers Association and the National Macaroni Institute.

Survivors are three children, Dolly Zarlengo, Ed and Anthony M. Vagnino; two sisters and a brother Louis of St. Louis, seven grandchildren and thirteen great grandchildren.

JoAnn Maritato

JoAnn Maritato, wife of Sal F. Maritato, died suddenly on April 8 at the age of 58. She had been in fragile health.

Mr. Maritato is vice president for durum sales for International Multifoods, Minneapolis.

She is survived by her husband, son Gerald and daughter-in-law Jacinta, grandson Johnathon, mother Frances

Giardina and sister Mrs. Nancy D'Elia.

At Lipton's

Hubert M. Tibbetts, president of Thomas J. Lipton Inc., member of the Unilever Group, has been named to the additional post of chief executive officer. He succeeds W. Gardner Barker, who is retiring as chairman and chief executive officer.

At American Beauty

Donald J. Heineman, previously general manager of the U.S. pickle division of H. J. Heinz, is vice president of American Beauty Macaroni Company, recently acquired by Pillsbury.

Buhler-Mieg Chief

Alfred Metzger has been named chief executive officer of Buhler-Mieg GmbH, international designer and manufacturer of equipment and supplies for grain processing operations. The company's U.S. operations are under Buhler-Mieg, Inc., Minneapolis.

Mr. Metzger previously was president and general manager of Buhler-Mieg, S.A., Madrid, Spain.

Buhler-Mieg said the following executive officers will continue in current responsibilities:

Fritz Haller, executive vice-president, manufacturing; Dr. Wolfgang Rust, executive vice-president, administration, legal; Ernst Auer, executive vice-president, sales; and Harry Strube, executive vice-president, finance.

Creamettes and Armour Beef Tie-in

A highly successful tie-in promotion is repeated by Armour Star Sliced Dried Beef and Creamettes Macaroni with a full page ad in the May 19 issue of Family Circle magazine. The joint ad features an appetizing recipe for "Beef and Macaroni Casserole," an economical dish described as just right for meal service.

Barilla Lasagne

Dalt International, Inc. of Englewood Cliffs, N.J. is importing and distributing Barilla Lasagne from Italy. The enriched macaroni product is packed in one pound boxes with recipe suggestion printed on the carton.

We've been going together for nearly 50 years.

enriched packaging and pasta make perfect partners. Pasta products from all over the country have been processing for nearly 50 years.

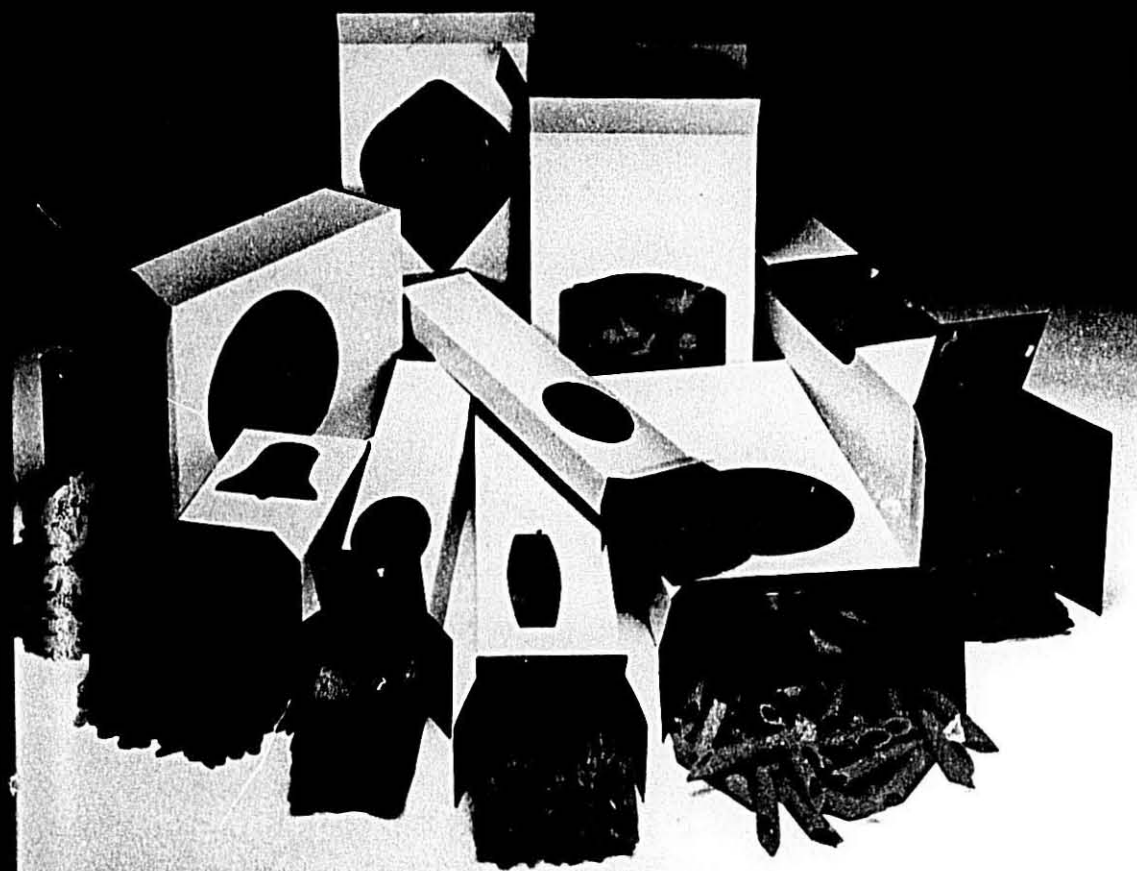
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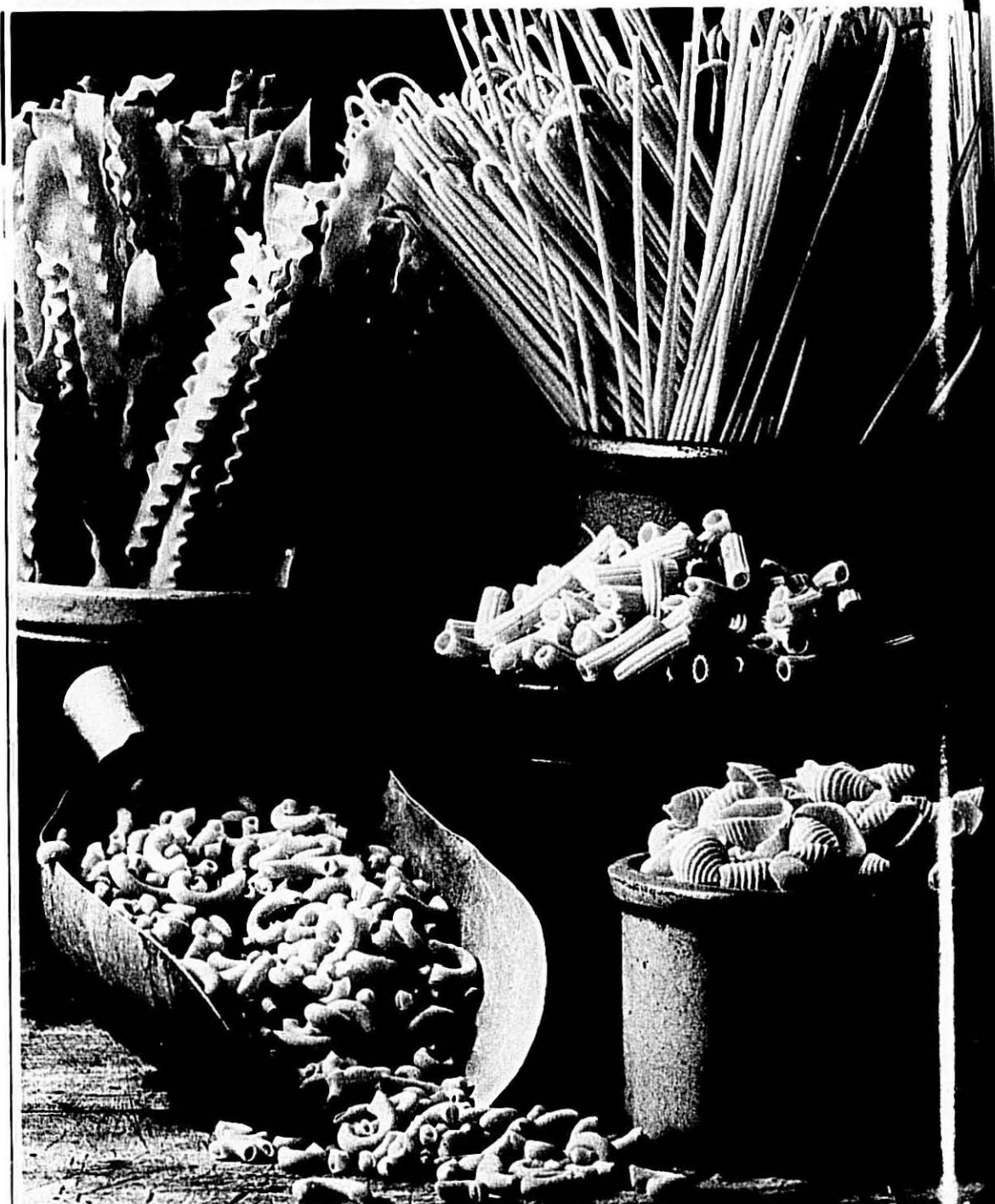
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