

**THE  
MACARONI  
JOURNAL**

**Volume 63  
No. 12**

**April, 1982**

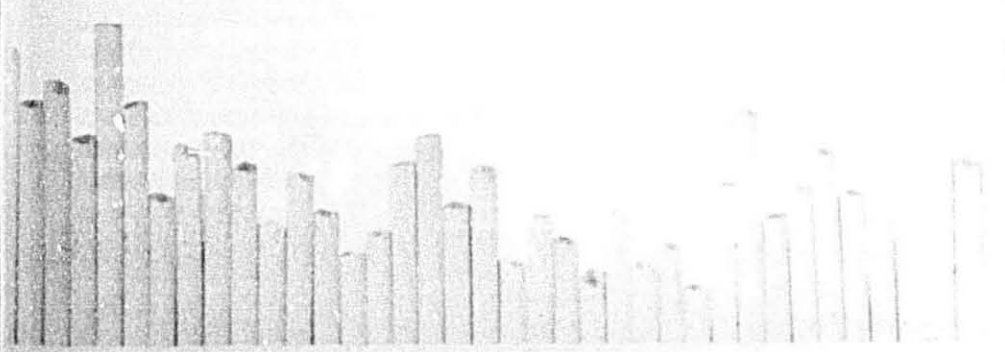
# Macaroni Journal

(ISSN 0024-9094)

April, 1982

## In This 63rd Anniversary Issue

	Page
Sixty-third Anniversary— We Salute Our Advertisers . . . . .	3
Consumer Attitude Study . . . . .	4
Pasta Publicity . . . . .	6
Advertising— Industry Items . . . . .	10-14
Mill Consolidation . . . . .	16
Durum Outlook— Durum and Egg Markets . . . . .	20
Characteristics of Durum Wheat Starch and Cooking Qualities of Pasta: Some Preliminary Considerations . . . . .	22
Canadian Grain Laboratory Report 1980 . . . . .	26
Research Project: Utilization of Durum Mill Food Streams for Increasing Dietary Fiber in Durum Pasta . . . . .	27
Corrugated Shipments Up in 1981 . . . . .	32
Old Pasta Maker Looks Forward to the Future . . . . .	36
Lift Reduces Bonding . . . . .	37
BUYERS' GUIDE . . . . .	43
Comment from Around the World . . . . .	49





## CONSUMER ATTITUDE STUDY

The most interesting finding of a study about consumer attitudes toward wheat products conducted for the Wheat Industry Council is that "the most promising path for nutrition communications lies in giving consumers permission to eat more of the foods they now deprive themselves of."

Consumers need help in adopting new positive views of carbohydrates based on authoritative nutritional information, continued the study prepared by Fine, Travis & Associates, Inc., New York.

The study was a qualitative exploration of consumer attitudes and values using nine focus group interviews, three each in Philadelphia, Indianapolis, and Los Angeles. In each market two groups of women and one of men, all heads of households, between the ages of 25 and 49, were addressed. All had at least one child living at home. The sample were mixed users and non-users of white bread, pasta, and sweet goods. All women regularly did the food shopping, and some men regularly participated or shopped infrequently. "Food Shopping" could include checking inventory and making a list as well as actually going to the store.

Blue and white-collar backgrounds were represented, minimum family income was \$15,000, and two black respondents were specified for each group.

Nutrition knowledge among group members were scattered and confused, and "most tend to fall back on a kind of 'nature' model of food values — a model that seems right, requires little technical education."

### Some Positives

The ideas of grain and wheat are very positive and carry a kind of "natural" imagery which allows people to feel good about the products that carry the "natural grain" image.

"Pasta, although seen as a high-caloric food, has now become part of the meal repertory for many. However, since its use is limited, as compared to bread, it does not link to truly negative perceptions. The idea that this well-liked, inexpensive posi-could have positive health benefits and could be used when on a weight-loss program was seen as extremely positive. Linking pasta to its natural, wheat



[The Macaroni Seller of Naples.]

origins should also be integrated into communications.

### Some Negatives

An element missing in current food and nutrition perception by the public is trust. People do not trust the food industry or institutions like the FDA, the press, the science community, or consumerist institutions. This, coupled with confusion and lack of comprehension about nutrition and health issues, helps explain why labeling laws which purport to better inform the public have had almost the opposite effect, increasing anxieties while explaining nothing. There is a general malaise that something is wrong with "the way we eat;" the foods we eat; and that no one seems able or willing to "straighten it out once and for all."

### Key Words

How respondents perceived key words in the wheat industry is an area

that food communicators can address. Starch, for example, is perceived negatively as fattening, while carbohydrate has a kind of scientific neutrality and sounds better informed and up-to-date. People have a heightened awareness of the importance of carbohydrates to athletes — which tends to bring an aura of energy and health to the term. It may be perceived as a necessity but not as a glamor idea as protein has always been or Vitamin C.

While carbohydrates are seen as "fattening", they are not accorded the hostility reserved for sugar and fats. The important finding of the study is that "Consumers are willing to adopt a more positive view of the value of carbohydrates, based on authoritative nutritional information, as long as the images presented are free of any focus on sugar, fats, or other substances towards which they are fixed in hostility.

"The most promising path for communications appears to lie in making

North Dakota Mill is one of the top mills in the nation for many reasons! Leo Cantwell, marketing director, is proud of the fact that only the most modern milling equipment is used to mill the finest, highest quality durum wheat in the world.

Superior laboratory and testing facilities assure you of quality con-

trol. Your macaroni products will be the best when you start with durum products from North Dakota Mill.

One of our top priorities is to back our products with responsible, personal service. Jane Rowland and Kathy Hjelden take great pride in handling and processing your orders through our customer sales center. Your complete satisfaction is very

important to us. That's why at North Dakota Mill, we deliver service

the durum people

**NDM**  
NORTH DAKOTA MILL  
Grand Forks, North Dakota 58201  
Phone (701) 795-7000

# We Deliver Service.



## Consumer Attitude Study

(Continued from page 4)

concrete and objective current thinking about carbohydrates: stressing health factors and increasing the percentage of carbohydrates versus other food categories in a recommended dietary regimen. Linking wheat-based products consistent with this approach to general good nutrition and sound weight loss programs is both nutritionally accurate and helpful to consumers and beneficial to the wheat industry."

At the same time, the industry should not expect to turn public perceptions around altogether.

### Image of Grain

By far the most positive image within the world of carbohydrates is that of grain. It says directly that we are talking about a natural form of a natural substance. Since wheat and grain seem to be synonymous, they are goodness symbols. The barrier only arises when one tries to make the link between nature imagery and product appeal. "When consumers think of flour, they do not necessarily or automatically think of grain or wheat. In fact, perceptions of flour seem closer to perceptions of starch — with its pasty imagery."

A second important step away from the potential nature imagery of grain is the transformation of flour into products. When respondents were asked what products were made from, the answer most often was "flour." Therefore, it is vital to provide links which connect the product itself to the rich imagery of grain.

Findings of the study on how respondents perceived pasta were: "Pastas are far less pervasive in the households and lifestyles of these, and presumably most, American consumers than bread, although for most of our consumers it has a regular place in their dinner repertory; while pastas seem exempt from the kinds of negative perceptions voiced against white bread, they are not accorded much credit for nutritional value, i.e., 'it's just basically a filler; it's pure starch.'"

### Associations with Pasta

Wheat was not a top-of-the-mind association with pasta.

Peoples' positive reactions to pasta included: a welcome regular change

of pace from potatoes; high appeal for kinds; a good filler; a versatile category since many forms were available, many combinations possible, quick and convenient to prepare; inexpensive; meat stretcher.

Negative reactions to pasta: very fattening and high starch; having little or no nutritional value; favorite pasta dishes demand bread also; difficulty of judging how much uncooked pasta is enough — lack of portion control — leads to cooking (and consequently eating) "too much." As one Los Angeles mother said: "You don't measure spaghetti. You just pile it up."

Since usage of pasta was infrequent rather than regular (as use of bread occurs daily) negative reactions were less strong. The serving of pasta is an "occasion" which seems to allow suspension of the rules.

Most people said they would like to eat more pasta than they do. Therefore, the goal of communication about pasta is to enhance pasta's nutritional image by providing some "natural goodness" links to grain. The double barreled approach that suggests itself is: Presentation of authoritative new positive nutritional news about carbohydrates; linkage with wheat and the romance of wheat. Give consumers permission to use a product which most would like to use more of.

### Permission Position

The heart of the "permission" position is to sell the undergirding principal of the carbohydrate story dealing with a change in the quantities of components of a balanced diet with carbohydrates increased and meat proteins decreased. Making the links between wheat carbohydrates and placing wheat-based products as a substantial and desirable daily part of a balanced diet create a formidable aegis under which to recreate a strong image for our product.

It is also helpful that the "permission" position represents current thinking of the nutrition community, speaking of the place of various foods in creating a nutritionally sound, easy to understand dietary regimen. That it is also more economical and can satisfy the desire of many Americans to consume more bread and pasta is a boon for both the consumer and those involved with processing and selling wheat products.

## PASTA PUBLICITY

National Pasta Association, through its agency, Burson-Marsteller, gained great publicity for the industry's products during the first month of the new year. In addition to the placements listed below, the NPA office continued to answer consumer requests for background and information and supply the institutional trade with the Pasta Foodservice Manual at a cost of \$10 each.

### Magazines:

Total Circulation: 12,510,838  
*Good Housekeeping, February.* Monthly "Susan" feature — full page with color photos devoted to "Skillet Macaroni and Cheese." Circulation: 5,138,948.

*Health, February.* Mushroom Meatballs (Spaghetti an ingredient) recipe. Circulation: 850,000.

*Southern Living, February.* "It's Italian and It's Light." Story begins: "Italian spaghetti and garlic bread are usually flatly refused by a dedicated dieter — the hundreds of calories hidden in sauced pasta and toasted bread are certainly taboo on a low-calorie diet. However, calorie counters can indulge in this month's light Italian menu without a worry. Each of these recipes has been stripped of extra calories in our test kitchens and given our stamp of approval for flavor and appeal." Color photo and recipe of Chicken and Spinach Noodles (242 calories per serving); second recipe is suggested: Meaty Spaghetti (330 calories per serving). Circulation: 1,405,685.

*Weight Watchers, February.* "Casserole Cuisine." Double-page color spread photo of Seafood and Pasta Casserole. Circulation: 826,205.

*Army Times, January 11.* Color photo and recipe: Marco Polo Tuna and Noodles. Circulation: 143,000.

*Cosmopolitan, January.* Green and Yellow Pasta recipe. Circulation: 2,747,000.

*Great Recipes of the World, January.* Macaroni and Seafood Salad photo and recipe. Circulation: 300,000.

*1,001 Home Ideas, January.* Cheese Noodle Pudding recipe. Circulation: 1,100,000.

### Major Market Newspapers:

*Augusta Chronicle.* "Light Eating, Pasta Suits Pattern Perfectly." Photo and recipe.

(Continued on page 8)

THE MACARONI JOURNAL

# WINSTON LABORATORIES, INC.

P.O. Box 361 — 25 Mt. Vernon Street

Ridgefield Park, New Jersey 07660

Phone: 201-440-0022

It is with pride that we call your attention to the fact that our organization established in 1920, has throughout its 62 years in operation concerned itself primarily with macaroni and noodle products.

The objective of our organization, has been to render better service to our clients by specializing in all matters involving the examination, production, labeling of macaroni, noodle and egg products, and the farinaceous ingredients that enter into their manufacture. As specialists in this field, solutions are more readily available to the many problems affecting our clients.

We are happy to say that, after 62 years of serving this industry, we shall continue to explore ways and means of improving our types of activities to meet your requirements and help you progress with your business.

James J. Winston  
Marvin E. Winston

## Pasta Publicity

(Continued from page 6)

*Fort Worth Star-Telegram.* "Pasta, Veggies and Salad Mates." Photo and two recipes.

*Modesto Bee.* "Noodle Dishes Satisfy as Light but Nutritious." Photo and two recipes.

*Pensacola News.* "Pasta: Light Eating Patterns Retain USDA Guidelines." Photo with two recipes.

*Augusta Chronicle.* "Pasta Shells Lighter Menu." Photo and two recipes.

*Baton Rouge State Times.* "Light Fare Features Baked Pasta Shells." Two recipes.

*Chattanooga Daily Times.* "Pasta Suits the Pattern for Lighter Meals." Photo and two recipes.

*Hazleton Standard-Speaker.* "Pasta Shells for Light Eating Patterns." Photo with two recipes.

*Columbus Dispatch.* "Pasta Shells Star in Light Fare." Photo and two recipes.

*Lubbock Avalanche Journal.* "Egg Noodles Turkey Combine for Light Winter Meal." Two recipes.

*Oklahoma City-Oklahoman.* "Fill Pasta Shells for Light Feast." Two recipes.

*Monterrey Peninsula Herald.* "Pasta Dish Can Have Light Touch." Photo with two recipes.

*Phoenix Gazette.* "Use Noodles for Dinner." Two recipes.

*Sacramento Bee.* "Pasta Featured in Nutritious Entree Duo." Photo with two recipes.

*Lancaster New Era.* "Pasta Goes Lightly on Calorie Counters." Two recipes.

*Chattanooga News-Free Press.* "Dine Lightly and Festively with Pasta." Photo with two recipes.

*Kalamazoo Gazette.* "Baked Pasta Shells Ideal for Light Meals." Photo, 2 recipes.

*Tallahassee Democrat.* "Healthful Pasta Main Dishes Appeal with or Without Meat." Photo and two recipes.

*Cedar Rapids Gazette.* "Pasta Fits Modern Diet." Photo and two recipes.

*Wichita Eagle and Beacon.* "Try the Turkey with the Rigatoni." Photo and two recipes.

*Venura Star-Free Press.* "Turkey Leftovers Go Well with Pasta." Photo and two recipes.

## Syndicated Sunday Supplements:

*Family Weekly, January 31.* Great Lakes Minestrone Soup recipe. This supplement appears in 357 newspapers with a total circulation of 12,303,505.

## Newspaper Color Pages:

Total Circulation: 3,268,257

*Grit, January 31.* "Make This Noodle, Eggplant Casserole." Photo and recipe. Circulation: 879,908.

*Des Moines Register, January 17.* Spicy Beef and Shells photo and recipe. Circulation: 207,998.

*Tampa Tribune, January 14.* Bean and Pasta Medley photo and recipe. Circulation: 181,610.

*Memphis Commercial Appeal, January 13.* "Popular Pasta Welcomed After Holidays." Spaghetti and Meat Sauce photo and recipe. Circulation: 199,740.

*Philadelphia Bulletin, January 13.* "January Soups Ward Off the Winter Chill." Noodle Vegetable Chowder photo and recipe. Circulation: 397,397.

*Las Vegas Review-Journal, January 6.* "Pasta and Veggies, A Cheap, Nutritious Meal." Spaghetti with Vegetable photo and recipe with second recipe. Circulation: 75,511.

*Los Angeles Times, January 3.* "Casseroles Tasty Ways to Stretch the Budget." Buffet Manicotti photo and recipe with second recipe: Chicken Noodle Garden Casserole." Circulation: 1,234,114.

*Spokane Spokesman-Review, January 6.* "Go Back to Basics with Soup." Noodle-Broccoli-Cheese Soup photo and recipe. Circulation: 77,459.

*Newspaper Syndicates:*

*Newspaper Enterprise Association, Aileen Claire.* Two stories are appearing: photo and recipe for Marco Polo Lo Mein; Lobster Salad (spinach noodles an ingredient) recipe. Combined circulation: 50,000,000.

*United Features, Slim Gourmet column.* Barbara Gibbons. Three columns recommend pasta recipes: Macaroni a la Greque; Pasta with Broccoli and Cheese; Chicken Cacciatore Dinner. Combined Circulation: 6,000,000.

*New York Times, Pierre Franey.* Green Noodles with Sautéed Mushrooms recipe. Circulation: 1,430,358.

*Los Angeles Times, Betsy Balsley.* One-Pot Chicken-Pasta Chowder recipe. Circulation: 1,000,942.

*Economist Newspapers, Joyce Macey.* Poppyseed Noodles recipe. Circulation: 200,000.

## Cooperative Publicity:

*Pickle Packers International.* Pasta-Pickle Salad photo and recipe to King Features Syndicate. Circulation: 6,000,000.

## Foodservice Program:

*Restaurants & Institutions, January 1, 1982.* Spaghetti and Meatballs are illustrated in 1/4-page full-color photo in a special feature titled "New England Cookery." Copy explains how "ethnic flavors influence the foods prepared in contemporary New England kitchens," and how pasta is a valid example "... of the eclectic, international character of New England cuisine in 1982 ... a taste of 'American Italy.'" Recipe is included.

*Restaurant Hospitality, January, 1982.* A variety of pasta shapes are displayed in a 1/4-page full-color photo in the "Great Ideas for Food & Beverage" section titled "Food Bars ... Stars of the 80's." Copy emphasizes how "A Pasta Bar is another low-food-cost, high-profit idea."

Case history story done at Joe Rigatoni's Restaurant, Houston, Texas, highlights the spaghetti bar as a "bar where customers select the type of pasta they want."

Special Request: Carolyn Boyd, Supervisor, School Food Service Program, has requested a quantity of recipes to better incorporate pasta into their 35 school cafeterias.

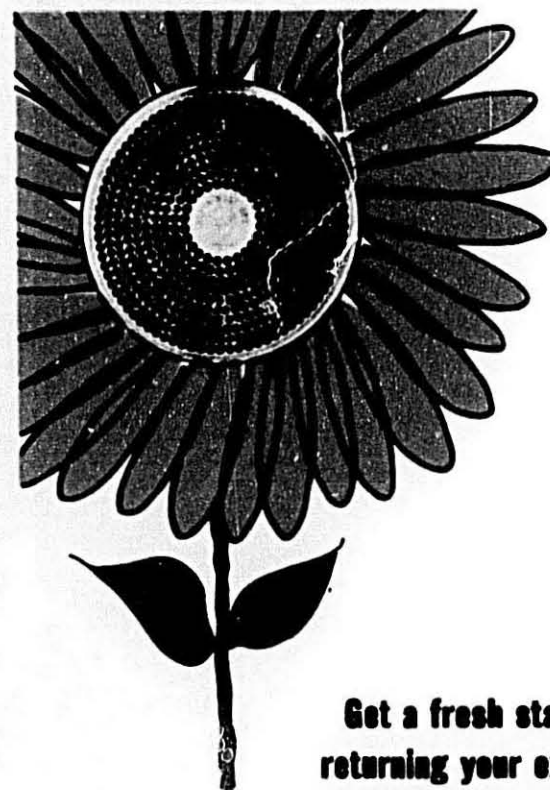
## Canadian Product Promotion

The Canadian Pasta Manufacturers' Association employs Burson-Marsteller for their product promotion and publicity.

The agency provided a spokesperson and prepared "Linguine in Clam Sauce" for a "Toronto Today" radio feature on getting back into shape after Christmas excesses. The show was taped at Counterweight's studio December 29 and aired January 4. The messages conveyed included the im-

(Continued on page 10)

THE MACARONI JOURNAL



Get a fresh start this spring by returning your extrusion dies to us for reconditioning to insure trouble free operation and maximum production of high quality products. Then watch your profits grow!

Call now for complete details.

**D. MALDARI & SONS, INC.**  
557 THIRD AVE. BROOKLYN, N.Y., U.S.A. 11215  
Telephone: (212) 499-3555



America's Largest Macaroni Die Makers Since 1903 - With Management Continuously Retained In Same Family



### Canadian Product Promotion

(Continued from page 8)

portance of pasta in a well balanced diet, its versatility and value as a source of complex carbohydrates. Audience: 399,606.

Topics on a regular 3-minute radio interview with station CHNS Halifax included:

**Outdoor Winter Warmer** — Take pasta with you for the ski hills and trails, a skating or ski-dooing break. Pasta soups and ragouts give a warm nutritious energy boost.

**Dieting Again** — more ideas with pasta.

**Pasta Crafts** — For children kept home from school because of snow storms. Given by special request from CHNS. Audience: 116,000.

Jim White, Toronto Star reporter and host of "McLean at Large" cooking spot on CBC-TV called to advise of success of show aired Jan. 7, 1982. Audience: 7,000,952.

**Publicity in print included:** "Turkey Cacciatore with Spaghetti" in Lady-smith-Chemainus, Ladysmith, B.C.

"Christmas Shopping Guide for the Organized Woman", Athabasca, Alberta Echo, told of pasta as a complex carbohydrate.

"Pasta Presents Are Unexpected Treasure", Charlottetown, P.E.I. Guardian, was a story on pasta as craft material.

"New Pasta Dishes", Lloydminster, Saskatchewan Times.

"Eat Right Before and During Holidays", Shellrock, Saskatchewan Chronicle.

"Rigatoni adds a new dimension to Turkey Leftovers", The Moncton, N.B. Transcript.

"New Pasta Dishes", Lindsay, Ontario Daily Post.

"Pasta high-energy food, a favorite of athletes", Brantford, Ontario Expositor.

Nancy Clegg writes in Edmonton, Alberta Journal: "Pasta in all its various shapes is one of our most decorative and affordable foods. Its shape alone could be what appeals most to children." She goes on to say it makes a good nutritional contribution.

"The Pasta Cookbook" was a sixteen page supplement in the February issue of Canadian Living magazine, circulation: 264,889.

### Special Olympics

Special Olympics, created and sponsored by the Joseph P. Kennedy Jr. Foundation, are holding a Fine Arts Festival along with Spring Games at Fort Leonard Wood, Mo., May 22, 1982.

They will include the NPA leaflet "Pasta, Food for Athletes" in each souvenir packet for participants.

### Brands Are Gaining

"Despite predictions that supermarkets would reduce the number of name brands they stock, lots of brands besides those that are No. 1 or No. 2 in their categories are apparently still very much alive." That is the conclusion of Food Industry Newsletter, based on a study for it by Selling Areas-Marketing, Inc., known as SAMI.

SAMI, which tracks product movement through food-store warehouses, looked at 40 leading product categories and found 2,696 brand names (excluding stores' own private label products), a 9 percent increase in five years. Many marketers had been forecasting a decline. They said that the growth of generic and private-label products would hurt name brands. So too would the spread of "limited-assortment" food stores that offer lower prices but less variety. High labor and interest costs would lead retailers to drop slow-moving products, and electronic cash registers with scanners would help spot the ones to cull.

Although the SAMI total may have been distorted slightly by the proliferation of shampoos and hair conditioners (339 last year, up from 209 in 1976) the newsletter says, "many retailers still find wide assortments are an important way of attract shoppers." It also cites regional brands that have strong followings.

### Hunt's Tomato Sauce

A colorful ad in March 17 Family Circle and other magazines pushed Hunt's new improved tomato sauce — now thicker and richer than before and with more vine-ripened Hunt's tomatoes in every can.

Dick Van Dyke appears with two pretty girls. The first says: "My spaghetti was good . . . but it just got better!" The other says: "My lasagne was good . . . but it just got better!"

The ad agency is Botsford Ketchum in San Francisco.

### Hellman's Touts "Pasta Salads"

In March and April issues of women's magazines, Hellmann's Mayonnaise will introduce a new recipe idea — "Pasta Salads"—made with creamy, smooth Hellmann's Mayonnaise combined with pasta and a mixture of garden fresh vegetables. A full-page, four-color ad in March 17 Family Circle will feature two recipes — "Creamy Garden Fiesta" and "Creamy Tuna Twist"—to encourage consumers to use Hellmann's in all their favorite pasta recipes. The ad agency is Dancer Fitzgerald Sample.

### Nissin Advertising

Nissin Foods, makers of Top Ramen, Oodles of Noodles, Cup O' Noodles and Quick 'n Tender, is running new color coupon ads in winter '82 issues of Family Circle and Woman's Day.

The ads position Top Ramen and Oodles of Noodles as "the noodlier than normal noodle soup," and feature a 15¢-off store coupon for two-package purchases.

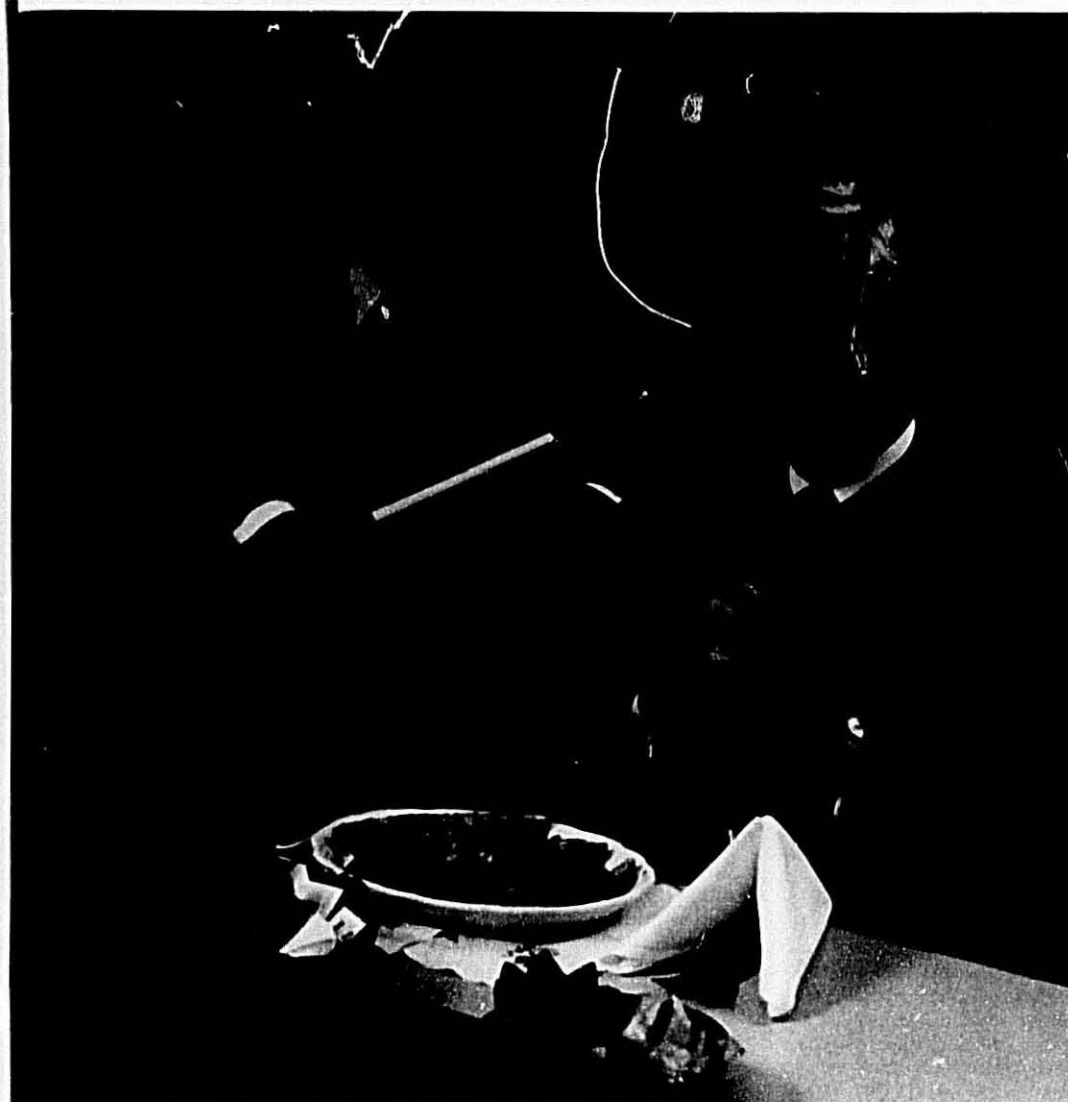
The winter campaign follows up on last fall's Top Ramen and Oodles of Noodles color ads in Good Housekeeping and Woman's Day.

Top Ramen and Oodles of Noodles are the number-one-selling Oriental noodle soups. Nissin Foods has maintained their leadership position by pursuing all opportunities for improvement in the quality and acceptance of their products. As part of this on-going program, Nissin will soon be introducing bright new packaging designs for Top Ramen, Oodles of Noodles and Cup O' Noodles.

The new design will give all three products stronger brand impact — including new photography to give the brands stronger appetite appeal, and bolder color brands for easier flavor identification. Nissin is also enhancing the flavor formulation of its Ramen

(Continued on page 12)

THE MACARONI JOURNAL



*Perfect pasta  
makes a  
great case  
for a good  
stuffing.*

Judge for yourself. No matter what people stuff inside manicotti or ravioli, the pasta just won't hold its own unless it's nutritional, good-tasting and economical.

Others might court you with eager promises. But trust Amber for top quality. Amber mills the finest durum wheat into fine pasta ingredients . . . Venezia No. 1 Semolina, Imperia Durum Granular or Crestal Fancy Durum Patent Flour. The consistent color and quality of your pasta products will testify to Amber's modern efficient milling techniques.

At Amber Milling, helping you prepare a great pasta for your customers' stuffings is a matter of record. Need proof? Next time you order, specify Amber. Then you be the judge!



AMBER MILLING DIVISION of THE GRAIN TERMINAL ASSOCIATION

Mills at Kush City, Minn. • General Offices at St. Paul, Minn. 55165/Phone (612) 646-9433



### Nissin Advertising

(Continued from page 10)

products to go along with the new packaging designs.

Nissin Foods is a pioneer in dehydrated foods, and today accounts for over 25% of all U.S. dry soup sales.

The ad campaigns were created by Dentsu Corporation of America in Los Angeles, and the new packaging designs were created by S and O Consultants in San Francisco.

### Stouffer's Imagination

Recreational vehicle owners and boaters will not be leaving the quality, variety and convenience of good meals at home in 1982. Many RV's and boats are equipped with kitchens and Souffer Foods Corporation plans to turn motoring and cruising into a real pleasure trip this year.

Commenting on Stouffer Foods Corporation summer excursion plans, Elena Coccaro, Consumer Affairs Manager states, "Our frozen prepared foods are ideal for this leisure lifestyle. Culinary quality and variety don't have to stay at home when we offer more than twenty Stouffer entrees and side dishes in convenient boilable pouches. Taking only 15 minutes to heat, these time saving pouches conserve energy, regardless of the energy source. Pouch cooking means quick clean-ups too, with only the hot water pan to rinse. These pouch products and other Stouffer foods are available nationwide. For the traveling kitchen equipped with a microwave oven, the majority of Stouffer frozen prepared foods provide microwave instructions for convenient preparation as well. Our products stack neatly in the smallest freezer, eliminating constant supermarket stops."

Additional meal time ideas are offered to the consumer by writing for "A Little Imagination and Souffer's." This 32 page booklet contains 63 easy, delicious and different menu ideas and serving suggestions.

"A Little Imagination and Souffer's" is available free to consumers, although there is a 50¢ charge to cover the cost of postage and handling. To request a copy, send their name, address and 50¢ to:

Stouffer's Imagination, P.O. Box 1803CNM, Winston-Salem, NC 27102

This offer is good while supplies last. Consumers should allow six to eight weeks for delivery. The offer is void where prohibited by law.

While Stouffer Foods Corporation encourages the reprint of any mealtime idea from *A Little Imagination and Souffer's*, a reference to the copyright owner would be appreciated.

### Record Year for Borden

Performance of the Grocery Products, Bakery and Dairy Groups of Borden, Inc., were "substantially above" that of a year earlier as the Consumer Products Division of Borden paced the company to record earnings in the fourth quarter and fiscal year ended Dec. 31.

Eugene J. Sullivan, chairman and chief executive officer, said the record earnings in fiscal 1981 is attributed primarily to an "outstanding performance" by the Consumer Products Division as well as tax benefits from its capital investment program.

Operating income of the Consumer Products Division, Mr. Sullivan said, advanced 18% to \$141.7 million from \$120.5 million. Most of the gain, he said, came in the fourth quarter. He noted the improvement was made despite the loss in income from discontinued operations, primarily sugar refining. Division sales totaled \$2.66 billion, down 1% from \$2.69 billion a year ago. Figures for both years are restated to reflect transfer of certain businesses to the Chemical Division last August.

The Bakery Products Group of Borden operates under the Drake's Bakeries name; the Grocery Products Group includes the Wise, Buckeye, Guy's Foods and other snack plants in the Southwest.

In the fiscal year ended Dec. 31, Borden had net income of \$159,939,000, equal to \$5.45 per share on the common stock, up from \$147,485,000, or \$4.47 per share in fiscal 1980. Sales totaled \$4,415,174,000, off from \$4,595,795,000.

Net income of Borden in the fourth quarter ended Dec. 31 was \$42,391,000, equal to \$1.44 per share on the common stock, up from \$33,806,000, or \$1.13 per share, a year ago. Sales aggregated \$1,063,414,000, off from \$1,103,888,000.

In announcing the fiscal year results, Mr. Sullivan said Borden had sold three Pepsi-Cola bottling franchises to the Pepsi Cola Bottling Group, a wholly-owned subsidiary of Pepsi Co., Inc. Any gain from the transaction, he said, will be reflected in 1982 first-quarter results.

The sale, Mr. Sullivan added, essentially concludes the disposal phase of the company's assets redeployment program, announced in July, 1980. He said the bottling franchises were "healthy businesses, which we have sold at full value because they do not fit in with our development program to expand our Consumer Products Division, primarily in pasta, snacks, dry grocery products, and specialized non-food items."

In the past year, Borden acquired National Food Products, Inc., Hara-han, La., largest distributor of pasta in the New Orleans market, and announced plans for construction of a \$7.7 million Creamette pasta plant at Phoenix, Ariz.

### Record Year for Hershey

Hershey Foods Corporation announced record consolidated sales and earnings for the year 1981. Net sales for the year were \$1,451,151,000 compared with \$1,335,289,000 in 1980. Net income for the year was \$80,362,000 compared with \$62,055,000 in 1980. Earnings per share increased to \$5.61 per common share in 1981 compared with \$4.38 per common share in 1980. In 1981, the average number of shares outstanding for the year was 14,321,716, reflecting the November 1981 stock offering in which 1,500,000 shares of the Company's common stock were sold to the public. This compares with 14,159,801 shares in 1980.

Net sales for the fourth quarter of 1981 were \$384,685,000 compared with \$375,579,000 for the fourth quarter of 1980. Net income for the quarter was \$20,964,000, or \$1.42 per common share, compared with \$19,218,000, or \$1.35 per common share, for the same period in 1980. The earnings per share for the fourth quarter of 1981 also reflect the impact of the November 1981 stock offering.

"We are particularly pleased with our fourth quarter results, especially

(Continued on page 14)

**"WHO'S  
HIGH TEMPERATURE  
LONG GOODS LINE  
WILL PRODUCE  
THE BEST QUALITY  
AT THE  
LOWEST COST?"**

**OURS.**

Call Demaco for Answers.  
(212) 963-6000

**DEMACO**

A VITAL LINK IN THE FOOD CHAIN

DEFRANCISCI MACHINE CORP. 200 WALLABOUT STREET, BROOKLYN, N.Y. 11206 TWX: 710-584-2449



## Record for Hershey

(Continued from page 12)

in view of the strong results posted by the Company in the fourth quarter of 1980," said William E. C. Dearden, Vice Chairman and Chief Executive Officer. "During the fourth quarter of 1980, we experienced an unusually strong business surge which continued into the first quarter of 1981, while the fourth quarter of 1981 followed the more traditional patterns of our businesses.

"In 1981, the Company's overall performance was excellent despite the unsettled economy and vigorous competitive activity in all of our businesses," Dearden continued. "Hershey Chocolate Company's performance was outstanding, and Friendly Ice Cream Corporation also achieved healthy sales and earnings increases. In addition, San Giorgio-Skinner and Cory both made important contributions to the sales and earnings record of the Company."

"The Company's net income performance was particularly strong as higher operating margins were achieved by all operating units. The margin improvements reflected increased sales, stabilized raw material costs, manufacturing efficiencies and other productivity improvements. These improvements were accomplished despite a significant increase in our marketing expenditures, especially during the fourth quarter," Dearden concluded.

The Board of Directors of Hershey Foods Corporation declared a regular quarterly dividend of \$4.75 per share on the common stock. The dividend is payable March 15, 1982, to stockholders of record February 25, 1982. It is the 209th consecutive regular dividend.

## Regional Sales Manager

Chuck Karlow has been named Buitoni Foods Regional Sales Manager - Mid-Atlantic Region, it was announced recently by James Powers, Buitoni Foods National Sales Manager.

Prior to joining Buitoni, Karlow was with the Pillsbury Company, where for the past three years he served as district manager covering Montana, Wyoming, Nebraska and South Dakota for Pillsbury branded and American Beauty pasta and sauces.



Chuck Karlow

Before that, for six years, he was a Pillsbury sales representative for branded products, and covered the up-state Pennsylvania and metropolitan-Baltimore markets.

Karlow is a graduate of Pennsylvania State University, where he earned his B.A. in Business Administration.

## Buitoni Assistant Product Manager

Keith Baeder has been named Assistant Product Manager - Dry Grocery Products at Buitoni Foods Corp., it was announced recently by William P. Smolka, Buitoni Vice President - Marketing and Sales.

In his new position, Baeder assumes marketing responsibilities for Buitoni's pasta, prepared foods and sauce products. He reports to Tom Heffron, Marketing Manager of Buitoni's Dry Grocery Products Division.



Keith Baeder

Previously, Baeder was a Sales Representative in Buitoni's New Jersey District. Prior to joining Buitoni in February 1981, he was a Sales Representative with Deblinger Sales and Marketing, a metro-New York food broker.

Baeder is a graduate of Moravian College, where he earned his B.A. degree in Management.

Buitoni Foods Corporation manufactures and markets a full line of quality Italian dry pasta products, sauces, pizzas and frozen entrees.

## Buitoni Food Service

Wes C. Jeffries has been named Buitoni Food Service Southern District Sales Manager, it was announced recently by Rick Grant, Buitoni Food Service General Manager.

In his new position, Jeffries is responsible for directing 15 broker sales organizations in 11 states in the south and southeast. He will report to Wagner Myers, Buitoni Food Service Eastern Regional Sales Manager.

Jeffries has extensive experience in the food service industry. Immediately prior to joining Buitoni, he was National Accounts Manager for Malone and Hyde, distributors in Nashville, Tennessee; there he worked with many southern-based, national restaurant chains. Previously, Jeffries managed restaurants for the Steak and Ale chain and Ireland's Restaurants of Nashville.

Buitoni Food Service, known in the food service industry as the supplier of the most complete line of authentic Italian food products, is a division of Buitoni Foods Corporation, South Hackensack, New Jersey.

## Jeno's Names Pasta Product Manager

Appointment of Lewis H. de Seife, Jr., Cincinnati, OH, to the newly created position of Product Manager - Pasta Products Group for Jeno's, Inc., was announced by Jeno's President John Parr.

De Seife, a veteran of 15 years in consumer products sales and marketing management, will supervise marketing for Jeno's frozen Italian entrees, lasagne, and other frozen and packaged pasta products.

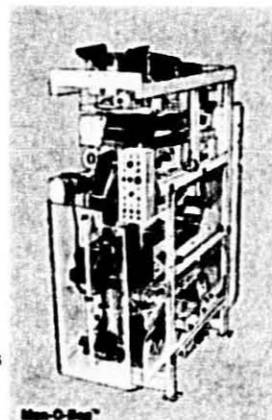
(Continued on page 16)

THE MACARONI JOURNAL

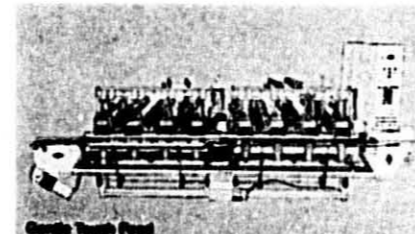
# WE'VE BEEN DOING THINGS WRIGHT SINCE 1893.

In fact, we're one of the oldest American manufacturers of packaging machinery. And we didn't get to be a respected old-timer in this business by being a follower.

For the past 88 years, Wright Machinery has consistently been a leader in engineering innovation to meet highly specialized packaging needs.

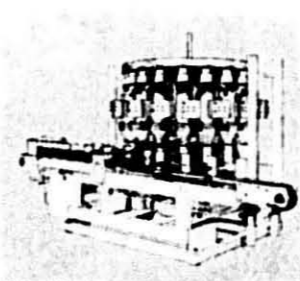
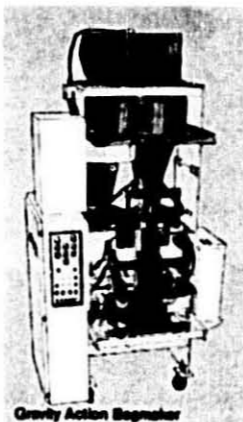


Our all-new Mono-O-Bag™ with Micro Processor is engineered to put good things in small packages—potato chips up to 2½ ounces and other snacks up to 4 ounces.



Wright's Gentle Touch Feed is engineered to handle mushrooms with a minimum of bruising and abrasion. And it's adaptable to other delicate products.

The Gravity Action Bagmaker is designed to handle heavy and bulky products which require larger bags. The actual bag is formed from the gravitational force acting on the product.



Rotary Weigher

Modular design sets our new Rotary Weigher apart. This innovation allows the assembly of a system to meet specific requirements at minimum special engineering costs. Also, it permits quicker changes in container sizes.

**WRIGHT** Rexham

Rexham Corporation Wright Machinery Division  
Post Office Box 3811 Durham, North Carolina 27702  
(919) 682-8161 TWX 510-927-0925

© 1981 Rexham Corporation

### Jeno's Pata Manager

(Continued from page 14)

He joined Jeno's after serving as Marketing Manager for the Weight Watcher Division of Heinz, Manhasset, NY. He previously served in various marketing capacities for Continental Baking, No Nonsense, and for Heublein. His experience also includes service as an account executive for Dancer-Fitzgerald-Sample.

De Seife, who spent his early years in Paris, France, holds a Bachelor's Degree from Brown University and a Master of Business Administration in Finance and International Business from Columbia University.

He resides in Duluth.

### Mill Consolidation

Total wheat flour milling capacity of the 10 largest U.S. flour milling companies in 1981 was 762,700 cwt, representing 71% of the industry's total wheat flour capacity of 1,070,671 cwt, according to the 1982 "Milling Directory" published by Milling & Baking News.

The share of total capacity accounted for by the 10 largest companies is up from the 70% share shown for 1980 and compares with 68% for the three years between 1977 and 1979. It also is up from 63% in 1975 and 65% in 1974. At the same time, the share of capacity in the 10 largest companies has shown relatively little change over time, signifying growth in the industry divided nearly equally among the various company sizes.

According to the 1982 "Milling Directory," 16 milling companies had total wheat flour milling capacity of 10,000 cwt and above, one less than in 1980. These 16 companies in 1981 accounted for total daily wheat flour capacity of 885,500 cwt, or 83% of the industry total. That is off slightly from the 84% share in 1980 and is the same as in 1979, 1978 and 1977. It is well above 76% in 1975 and 78% in 1973.

The 10 ranking flour mill companies operated 84 milling plants in 1981, compared with 80 in 1980 and 78 in 1979. The 16 milling companies with daily capacity of 10,000 cwt and more in 1981 operated 101 million plants, up from 99 in 1980 and 1979. The companies in this category oper-

ated 98 plants in 1978 and 99 in 1977. In 1975, these milling companies had 92 mills.

Company	Mills	Capacity
ADM Milling	15	135,700
(ADM Milling)	(12)	(107,000)
(Centennial Mills)	(3)	(28,700)
Cargill Flour Milling	13	130,200
(Cargill)	(4)	(54,000)
(Seaboard)	(9)	(76,200)
The Pillsbury Co.	8	114,900
ConAgra, Inc.	16	95,000
Peavey Company	9	80,300
Intern. Multifoods	6	60,000
General Mills	8	55,100
Dixie-Portland	5	51,000
Nabisco, Inc.	4	40,500
Bay State Milling	6	36,000

### Cargill Takeover

Seaboard Allied Milling Corp. completed sale on Friday, Jan. 29, of its domestic flour milling operations to Cargill, Inc., Minneapolis. The transaction, the largest in the history of American flour milling, involves takeover by Cargill of the operation of 10 flour mills with combined daily capacity of 94,500 cwt.

The purchase price for the assets sold, exclusive of inventories and after adjustments, was \$39,951,552, evidenced by Cargill's one-year secured promissory note at the interest rate of 13.5% and secured by an irrevocable letter of credit.

In addition, Cargill purchased all of Seaboard's domestic inventories of grains, flour, and certain supplies, as well as the company's trade names and trade marks used in the domestic flour milling business.

Excluded from the purchased assets are Seaboard's Merriam office building, a portion of which is being leased to Cargill, certain other domestic assets, including all of Seaboard's domestic subsidiaries, and all of Seaboard's foreign subsidiaries and investments.

Cargill acquired eight flour mills outright and has leased Seaboard's flour mills at Jacksonville, Fla., and Buffalo, N.Y., under 10-year leases.

Seaboard will change its name to "Seaboard Corporation" as soon as is practicable.

**NPA Plant Operations  
Semina, Chicago, May 10-12**

### Cargill Elects Corrigan

Fredric W. Corrigan has been elected president of Cargill's Flour Milling Division.

Corrigan formerly was vice president and general manager of the company's Flour Milling Department, which was elevated to division status after Cargill's recent acquisition of the domestic flour milling operations of Seaboard Allied Milling Corp.

In addition to the new Seaboard Allied Milling Department, Cargill's Flour Milling Division includes the Burrus Milling Department and Ross Industries.

Jack Burkhalter, formerly assistant vice president of the Flour Milling Department, was named vice president of the new division. Pat Thiesen, former deputy general manager of Ross Industries, was named assistant vice president. John Lyles, formerly Milling division controller, was named controller of the Flour Milling Division.

Corrigan joined Cargill's training program in 1966 and held merchandising positions in the company's Processing and Refining Division at Cedar Rapids, Iowa, and Chicago. He became general manager of the corn wet milling plant at Dayton, Ohio, in 1972 and was named general manager of the corn processing plant at Memphis in 1975.

In 1977 Corrigan was selected to head the Coal Department. He was named an assistant vice president and general manager of flour milling in 1980, and was elected vice president of the Flour Milling Department in November 1981.

### Multifoods Dividend

International Multifoods Corp. announced a regular quarterly dividend of 37 cents per common share, payable April 15, 1982, to shareholders of record on March 29, 1982.

A regular quarterly dividend also was declared on each series of the Company's preferred stock, with the same record and payment dates as the common stock dividend.

Multifoods has paid dividends on its common stock each year since 1923, and has a record of ten consecutive years in which an increased dividend has been paid to common shareholders.

Minneapolis-based Multifoods has annual sales of more than \$1 billion.

# ASEECO

## Meeting tomorrow's automation needs today.

Whether you need a simple conveyor or a complete automated distribution system, ASEECO has the answer. Through high quality products and service, ASEECO helps you accomplish your project quickly, efficiently and economically.

ASEECO offers much more than high quality, automated equipment. ASEECO is also a service company whose years of international processing experience can provide you with:

- Plant Engineering—Layout and Mechanical
- Electrical Engineering and Control Panel Design
- Machinery Selection and Procurement
- Evaluation of Sub-Contracts and Bids
- Erection and Installation of Machinery
- Plant "Start-Up" and Final Adjustment
- Training of Operating and Maintenance Personnel
- Service After Sale

### PRODUCT TESTING:

To ensure the proper application and design of ASEECO products, a research and development facility is maintained to conduct actual on-product tests to determine handling characteristics and to obtain data for the design of specialized process machinery.

### TURN-KEY PROJECTS:

In addition to the design, engineering and supply of equipment, ASEECO will, if desired, assist in commissioning a process facility on stream. This service includes the preparation of operating and maintenance manuals, the training of operating personnel, conducting trial and test runs and the supervision of initial operations.

### PROJECT FINANCE PLANNING:

ASEECO is prepared to assist clients in obtaining comprehensive project financing. This assistance is inclusive of counseling on the type of financing best suited to your requirements and locating the source that can provide it.

## Ask for the following literature.

Name \_\_\_\_\_ Title \_\_\_\_\_  
 Company \_\_\_\_\_ Phone \_\_\_\_\_  
 Address \_\_\_\_\_ Zip \_\_\_\_\_

### ASEECO Condensed Engineering & Specifications Catalog.

16-page catalog provides features, applications, specifications and model selection guide for entire ASEECO line. Includes diagrams and photographs. U.S. and foreign sales offices listed. A must on any equipment specifier's desk.



ASEECO CORPORATION 8857 West Olympic Boulevard, Beverly Hills, CA 90211 (213) 652-5760 TWX: 910-490-2101

### ASEECO-LIN Overlapping Bucket Elevators.

Simple design. Modular construction. Sanitary. Open tubular and solid wall as well as totally enclosed models. One piece plastic buckets. Seven configurations—13 bucket sizes.



### ASEECO Belt Conveyors.

Available in troughed and flat slider bed designs. Flat and troughed roller bed woven steel belt or integral sanitary construction.



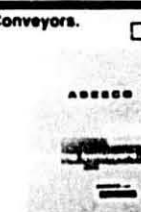
### MODU/TRAN II® Vibratory Distribution System.

Simultaneous conveying and distribution of product on demand to multiple packaging machines, hoppers, sorters and mixers without starvation or product recirculation. Compact. Sanitary design.



### ASEECO Vibrating Conveyors.

For conveying any free flowing or semi-free flowing material. Also for processing, heating, cooling, separating and screening applications. Exclusive flex spring linkage provides positive vibration of tray without damping underload. Available in natural frequency design.



### ASEECO Selectomatic Bin Storage Systems.

Fully automatic bin storage systems for free flowing materials. Sanitary construction and multitude of options.



### ASEECO ACCUMAVEYOR.®

Automatic storage system which accepts non-free flowing products at varying rates and discharges product on demand. Stores product in bulk. Fills the gap between continuous processing and packaging machines. Two basic models with inflex and discharge options to meet varying product characteristics.





## Durum Outlook

From USDA Economic Research Service February, 1982

On January 1, Durum stocks are the highest ever for midseason, despite a rebound in disappearance during June-December. This is due mainly to 1981's record harvest of 186 million bushels, nearly 80 million larger than a year ago and 40 percent above the previous high in 1978. These large midyear supplies will continue to dampen price prospects and will likely cause yearend stocks to top 100 million bushels for the first time. Durum stocks in the reserve program are likely to be around 25 million.

Because of low prices, abundant supplies, and short 1981 wheat crops in Italy and Morocco, foreign purchases of U.S. Durum have been very strong during June-December. Export commitments are nearly 50 percent ahead of 1980's short supply season and may well exceed the record 83 million bushels shipped overseas in 1979/80.

While price levels for all wheat classes have declined below a year ago, the extent of the drop was most severe for Durum. Current prices are around \$4.50 a bushel at Minneapolis compared with \$7.40 last January. Considering this situation, the use of hard wheat flours (farina) in semolina blends during 1980/81 will likely decline, and domestic food use of Durum will return to a pre-1980/81 growth trend. This year's low prices will likely cause producers to reduce 1982 Durum plantings. Some Durum acreage in the Southwest will shift to Hard Red Winter, while producers in the Northern Plains are expected to decrease acreage in response to the reduced acreage program.

## Higher Year-End Wheat Stocks

The latest USDA supply and demand estimates reflect a 7 percent increase in year-end wheat stocks, according to the North Dakota State Wheat Commission.

Neal Fisher, NDSWC marketing specialist, said the rise in U.S. wheat stocks was a result of increased 1981 production, reduced export potential and lower domestic feed usage.

"Hard red spring and durum wheat stocks estimates as of January 1982 are larger compared to past projections for the same period," Fisher said. "More encouraging news and further reductions in stocks will be needed before spring wheat and durum prices will recover substantially."

Fisher said durum and spring wheat export commitments at this time are well ahead of last year's levels. He said U.S. durum sales are up 67 percent from last year while hard red spring wheat sales have increased 12 percent.

"The farmer-owned reserve programs have been effective in supporting prices, but heavier carryovers have lessened the effectiveness of the reserve by increasing the quantity of wheat not committed to the program," Fisher said.

North Dakota wheat currently under loan is 40.5 million bushels and commitments to the reserve program from crop years 1976-1981 total 77 million bushels.

## Durum Exports Up

Export commitments for Hard Red Spring wheat and durum are both well ahead of last year's levels for the first eight months of the marketing year. Increased activity in durum exports has pushed total U.S. durum sales commitments to 84.5 mil. bu. as of January 28, 1982, up 67% from last year's levels for the same period, with 4 months of the marketing year remaining. This quantity (if it is all delivered) represents a record level of durum exports exceeding the past record of 83 mil. bu. established in 1979-80. Recent sales of durum to Algeria have brought Algerian purchases of U.S. durum in 1981-82 to a total of 22 mil. bu. This level is more in line with U.S. durum exports to Algeria over the past 7 years and is 270% greater than last year's disappointing 5.9 mil. bu.

Additional export sales and further positive developments in domestic consumption in the remaining months of the 1981-82 marketing year will help to reduce U.S. durum carryover which at 108-112 mil. bu. is sizeable. In 1980 total U.S. durum production was 108 mil. bu. More encouraging news and further significant reduc-

tions in stocks will be necessary before durum prices will recover substantially.

## Algerian Purchase

Algeria booked 290,000 tonnes No. 3 hard amber durum at \$201.50 (c 225 a tonne, c. & f., February-June. Major portion of trade was reported by U.S.D.A.'s 24-hour service. While most of the transaction will be shipped from the Gulf or Great Lakes, a portion of the trade will be shipped from the West coast.

## Planting Intentions

Durum producers may plant 21 percent less acreage to Durum than last year. The traditionally market-keen Durum growers intend to plant 1.89 mil. ha. (4.66 mil. acres) compared to 2.38 mil. ha. (5.88 mil. acres) planted last spring which reaped a record 5.1 mmt (186 mil. bu.) harvest. North Dakota's projected 1982 acreage of 1.54 mil. ha. (3.8 mil. acres) is 17 percent below actual seeded acreage last year. That state grew 70 percent of all U.S. Durum in 1981.

## February Durum Market

Semolina ranged from \$12.20 to \$12.45, Minneapolis; granular \$12.00-\$12.30; fancy patent durum flour \$11.90-\$12.05.

## Egg Products

February price range from U.S. Department of Agriculture.

Central States Net Run \$13.50 to \$15.90.

Southeast Net Run \$12.90 to \$15.90.

Dried Whole \$1.82-\$1.95.

Dried Yolks \$1.94-\$2.02.

## Food Consumption

National Food Review, published by the U.S.D.A., Fall, 1981, notes that red meat consumption in 1980 was 150 pounds per person, up 3 pounds from 1979, despite the fact that beef consumption slipped. Wheat flour consumption held steady at 120 pounds per person while rice fell slightly from the record 1979 level to 9.5 pounds per person in 1980. Fresh potato consumption stood at an index of 120.1 in 1979 (1967-100) up 13 points in 10 years. Processed potatoes stood at 149.5, up 30 points in 10 years.

# DESIGNING MANUFACTURING SERVICING EXTRUSION DIES FOR THE MACARONI INDUSTRY

**TANZ INC.**  
6917 N. Milwaukee  
Niles, IL 60648  
(312) 647-9630

## Characteristics of Durum Wheat Starch and Cooking Qualities of Pasta: Some Preliminary Considerations

Research has always been an indication of the vitality and commitment of a company which aims to improve its products. The Braibanti Company has always borne this need in mind and has set up its own research and experimental centre, establishing links with various institutes and universities throughout the world, and has instituted study grants and awards.

The article which follows is the result of cooperation between the Braibanti Company and the University of Milan.

By G. Dulbon  
Braibanti Experimental Centre  
Revereto  
M. A. Pagnani — P. Rosmini  
Institute of Agricultural Industries  
University of Milan

In previous works (1,2) we pointed out how the cooking qualities of pasta can be explained bearing in mind two concurrent phenomena which act in opposite ways: Starch gelatinization and protein polymerization.

During cooking, the starch granules of pasta are imbued and undergo a partial solubilization (gelatinization) whereas the gluten proteins, scattered in the spaces between the granules, polymerize forming a protein network.

Owing to the former phenomenon starch granules swell reducing and occluding the spaces among them, where the proteins are polymerizing.

Obviously a starch gelatinization, either faster or more advanced than the protein polymerization, will prevent the formation of the gluten network.

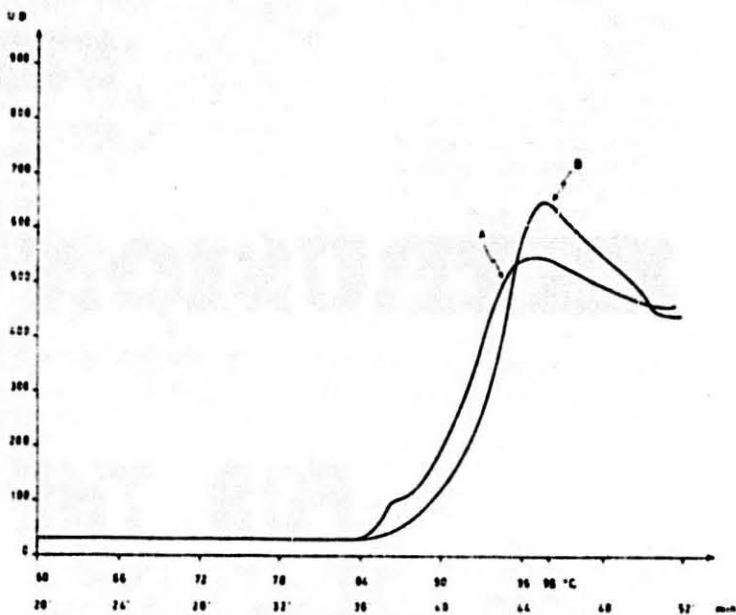
On the contrary, an advanced formation of the protein network will occlude the starch inside the just formed alveoli and avoid a large loss of it into the cooking water.

Clearly the "promptness" of the formation of the protein network depends on the quality and quantity of gluten.

The "promptness" and speed of "gelatinization" are also related to the gelatinization temperature: When the starch gelatinization occurs at low temperature there will be stronger negative influence on the protein network formation and consequently the pasta will present poor cooking qualities.

TABLE I  
Characteristics of Semolina and Starches

	Humidity (g/100g)	Ash (% d.m.)	Proteins (% d.m.)	Granulometry (φ in μm)
Semolina A ..... (low extraction rate)	12.62	0.82	9.19	47% > 600 μm 2% < 525 μm
Semolina B ..... (high extraction rate)	12.17	1.07	13.07	10% > 300 μm 80% < 106 μm
Starch A (from semolina A) ..	10.07	0.42	1.65	
Starch B (from semolina B) ..	8.43	0.60	2.16	



Also the recent work by Grzybowski (3) on the starch gelatinization during cooking of pasta reports the competition between the two phenomena.

These observations are borne out by the results obtained in a preliminary experiment on starch extracted from

durum wheat semolina, which are described below.

It is known (4) that those semolinas which have the highest extraction rate provide better results in pasta making than semolinas with a lower extraction rate, at least as far as the cooking qualities are concerned. It has been

TABLE 2  
Characteristics of Pasta Obtained from Starches Integrated with  
Gluten and Egg Albumen

	Humidity (g/100g)	Ashes (% d.m.)	Proteins (% d.m.)	Cooking qualities		
				Cooking time mins	Sediment (g/100g)	Stickiness
Pasta from Starch A	10.00	0.53	10.11	13	6.7	noticeable
Pasta from Starch B	9.60	0.66	10.63	13	5.4	none

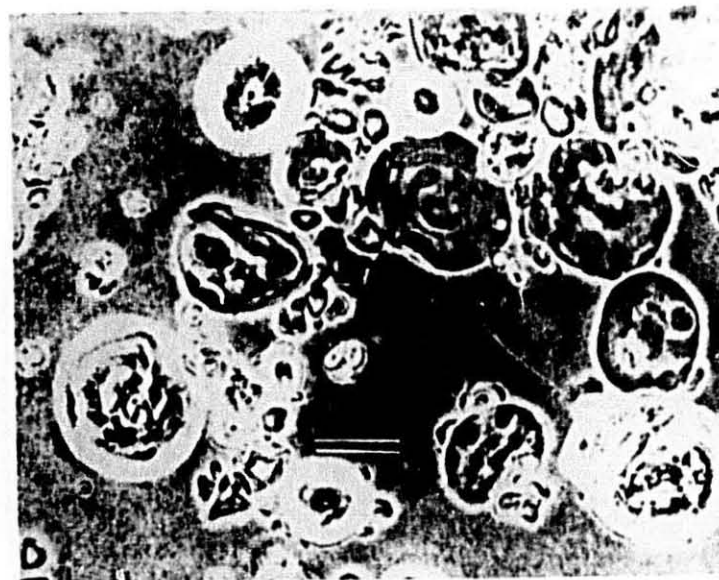


Figure 1

reported (5) that in the central part of the grain, starch granules have the largest sizes; therefore, they should present a high speed of imbibition and a fast swelling (6, 7).

The starches from samples of two durum wheat semolinas, having different extraction rates (semolina A: low rate; semolina B: high rate) were extracted by using the established method and examined by a Leitz Microscope for phase contrast observation and tested by the Brabender Amylograph.

The chemical characteristics of the samples are shown in Table 1, whereas Fig. 1 and 2 report the Optical Microscope photographs of the two starches and the two amylograms respectively.

As expected, starch A (inner part of the grain) contains granules of larger diameter than those in sample B (high extraction rate): 10 - 30 μm instead of 5 - 20 μm. This different distribution of the sizes corresponds to different amylograms: starch A begins to gelatinize at lower temperatures than starch B (83° C compared with 86° C) and gelatinizes more rapidly.

As far as starch is concerned, the gelatinization temperature and the speed of swelling greatly affect the cooking qualities of pasta, whereas even considerable mechanical damages to the granule do not have any effect

On the basis of these results and of the observations described previously, starch B should determine better cooking qualities in pasta, when the quantity and quality of proteins are equal. Therefore equal quantities of the same gluten and egg albumen were added to the two starches and two samples of pasta were produced from the two mixtures by using traditional technology of extrusion and drying.

The composition of the mixtures was: 88.3% starch, 10.6% commercial vital gluten, 1.1% powdered egg albumen. The characteristics of the two samples of pasta (1.7 mm diameter, spaghetti type) and the results of the cooking tests, are summarized in table 2.

The sample A showed worse cooking qualities than the sample B, although the two pastas were prepared with the same amount of gluten and egg protein but with two different starches. These first results concerning the influence of some characteristics of starch and protein on cooking

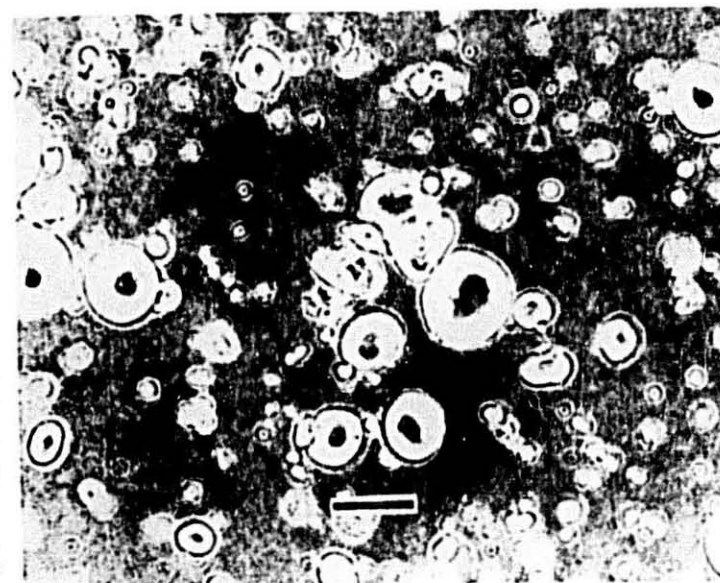


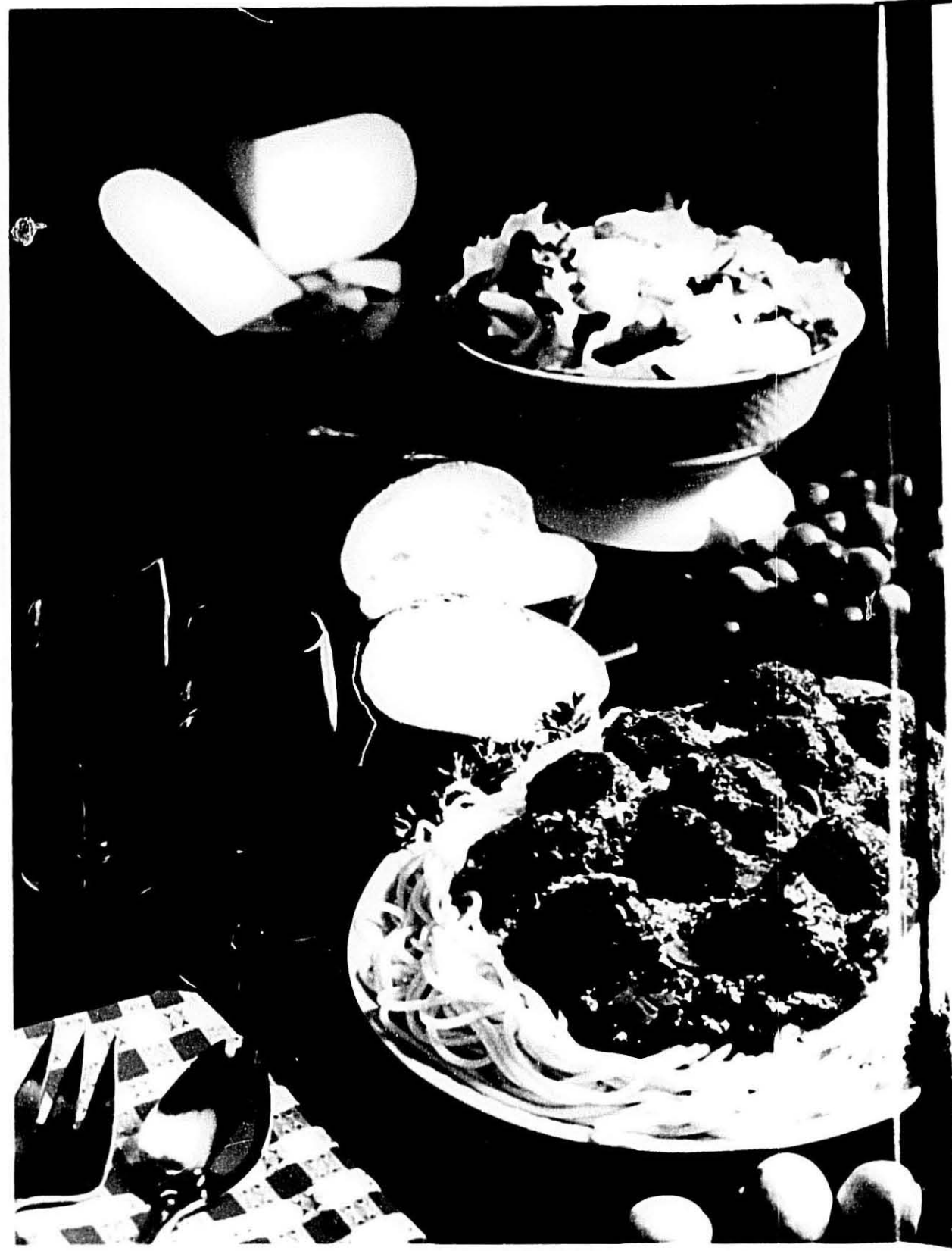
Figure 2

on the starch characteristics. The actual assessments of the suitability for pasta-making of a semolina, based only on protein tests, are very often aleatory: in fact, these tests do not take into consideration the influence of the starch.

qualities of pasta confirm the hypothesis previously reported.

In conclusion measurements of the starch gelatinization temperature and of the size of granules are of great assistance in evaluating a semolina.

(Continued on page 26)



# Peavey

Sales Offices

Peavey Company  
10000 10th Avenue S.W.  
Edmonton, Alberta T6A 1K1  
Canada  
Tel: (403) 462-1111  
Fax: (403) 462-1112

## Characteristics of Durum Wheat Starch

(Continued from page 23)

### References

1. Resmini P., Pagani M.A. — Freeze-fracturing specimen preparation and transmission electron microscopy in study of pasta products ultrastructure. Macaroni School, 27-30 aprile 1981, Minneapolis, Minn. (USA).
2. Dalbon G. — Some phenomena which take place during high temperature processes. Macaroni School, 27-30 aprile 1981, Minneapolis, Minn. (USA).
3. Grzybowski R. A., Donnelly, B. Y. — La gelatinizzazione dell'amido negli spaghetti cotti. *Tecnica Molitoria*, 29, 473, (1978).
4. Frey A., Holliger A. — Il comportamento in cottura della pasta visto al microscopio. *Tecnica Molitoria*, 23, 481, (1972).
5. Portet G. — "L'industria della pasta alimentare" ed. da Molini d'Italia - Roma 1957.
6. Paraventi R., Machinelli G. — L'amido, *Ind. Alim.*, 19, 1 (1980).
7. Georing K.J., Fritts D.H., Allen G.D. — A comparison of loss of birifrangence with the percent gelatinization and viscosity on potato, wheat, rice, corn, cow cockle; and several barley starches. *Cereal Chem.*, 51, 764, (1974).

## Canadian Grain Commission Grain Research Laboratory Report 1980

### Amber Durum Wheat

Comparison of Alpha-amylase and Simple Sugar Levels in Sound and Germinated Durum Wheat During Pasta Processing and Spaghetti Cooking.

Alpha-amylase and sugar levels of ungerminated and germinated durum wheats have been compared at various processing stages. Alpha-amylase increased 155- and 320-fold in the wheat upon germination for 72 and 120 hours respectively. Processing into semolina and spaghetti decreased alpha-amylase levels in both unger-

minated and germinated samples. During spaghetti cooking, alpha-amylase was present in the germinated sample up to at least 6 minutes of boiling. Examination of sugars in the durum wheat indicated that the levels of glucose and sucrose increased approximately 50% upon germination; the maltose level doubled. Conversion to the respective semolinas effected decreases in sugar whereas processing into spaghetti increased the maltose and glucose levels. Cooking of spaghetti had little effect upon individual sugars. Increased cooking time increased the sugars as well as the residue present in the cooking water and decreased the sugars present in the solid. Part of the cooking water residue was comprised of high molecular weight dextrans.

### Pasta Drying Conditions

In recent years the use of temperatures above 60° for drying pasta products has aroused considerable interest, especially in Europe. Advantages of 'high temperature' (HT) drying are reputed to be reduction of bacteria count in the product, shorter more economical drying times, more intense pasta color and an improvement in cooking quality.

In the Grain Research Laboratory, the quality of Canadian durum wheat is monitored by evaluating spaghetti which has been dried under low temperature (L.T.) conditions. With the increasing popularity of HT drying in the pasta industry, an investigation of the effect of altering drying conditions on spaghetti quality was undertaken.

Two HT schemes were developed to reflect different approaches commonly used in commercial plants. One drying cycle, HT-A, featured an initial drying temperature of 75°C for two hours, a decrease in temperature to 38°C over the next five hours followed by six hours at 38°C prior to shutdown. The other cycle, HT-B, featured a low initial temperature (42°C for 0.5 hour, 55°C for another hour) followed by 70°C for the remainder (11 hours) of the cycle.

Both HT cycles decreased drying time by over one-half compared to the conventional 28 hour drying cycle. Spaghetti from both HT cycles was slightly stronger than the LT spaghetti. Color intensity was greater, especially for HT-A, with no evidence of browning. Cooked HT-B spaghetti was firm-

er and less sticky (due to lower cooking loss) than for spaghetti from the other two cycles.

These studies will be extended with the objective of adding an HT drying cycle to our routine laboratory quality testing. This would allow increased throughput due to shorter drying times and also would update processing conditions in line with modern commercial practice.

### Comparison of Canadian Durum and Common Wheats

The gluten strength, mixing properties, baking quality and spaghetti quality of 22 Canadian durum wheats were compared to those of 38 Canadian common wheats. Durum wheats had generally weaker gluten than common wheats. Although generally poorer in baking quality than common wheats, some of the stronger gluten durum wheats exhibited fairly good baking quality. Similarly, although common wheats were generally inferior to durum wheats in spaghetti cooking quality, some of them exhibited better quality than the poorest durum wheats. Bread dough farinograph mixing times were related to gluten strength. Durum semolina doughs at bread dough absorption levels exhibited shorter farinograph mixing times than bread flour doughs. However, the farinograph mixing times at pasta dough absorptions were similar for both wheat classes, suggesting that pasta hydration time was not affected by increasing gluten strength beyond that possessed by an intermediate strength durum wheat. There was a strong ( $r = 0.92^{**}$ ) linear relationship between gluten strength and baking quality for the complete range of gluten strengths in both wheat classes. In contrast, gluten of intermediate strength appeared to be best for good spaghetti cooking quality.

### Effect of Degrading Factors on Durum Wheat Quality

The individual effect of starchy kernels, various degrees of immaturity, and shrunken kernels on durum wheat characteristics and end-use quality was investigated. As starchy kernel content increased, semolina granulation became finer and more flour was produced during milling. Protein content decreased with increasing starchy kernel content resulting in a deterioration

(Continued on page 30)

## RESEARCH PROJECT: UTILIZATION OF DURUM MILL FEED STREAMS FOR INCREASING DIETARY FIBER IN DURUM PASTA

by Rhoda K. Kordonowy, Graduate Research Assistant,  
Department of Cereal Chemistry and Technology,  
North Dakota State University, Fargo

### Objective:

Feed stream use in pasta production to produce a good quality pasta product.

Determine feed stream effect on the resultant pasta blend.

Characterize certain fibrous feed-stream constituents binding effects and reactions on important minerals essential in the human diet.

### Justification:

Fiber and fiber components are thought to have a direct effect on health and disease. Known health benefits from fiber in the diet are reduced intraluminal colonic pressure, reduced fecal transit time and softer stools. These factors are related to diseases such as colonic rectal cancer, diverticulosis, ulcerative colitis, appendicitis, gallstones and hemorrhoids. Nutritional properties of durum pasta may be improved by incorporating bran or headshorts. Bran, the portion of the kernel greatest in dietary fiber, is also higher in protein and mineral content than semolina.

Evidence exists linking insoluble dietary fiber to a binding effect on minerals making them unavailable to intestinal absorption. Fiber will be examined for its binding reactions with Ca, Fe, Mg, Mn, P and Zn.

The population segment which provides the market for feed stream incorporation into bread products could feasibly provide a similar market for the parallel in pasta products.

### Work Plan

The proposed research consists of two major sections. **Section One** characterizes raw materials physically and chemically, processes them into spaghetti, plus analyzes the quality of the subsequent spaghetti.

Preliminary studies determined the level of feed stream incorporation, plus the feed stream particle size needed to attain a good spaghetti product. Preliminary studies were conducted using a common lot of durum.

### Pulverized Bran

Pulverized bran was blended with semolina at levels of 5, 10, 15, 20, 25 and 30%. The bran particle sizes as determined by the Microtrac particle size analyzer were:

4.00%	> 300 mic
11.00%	< 300 mic and > 212 mic
24.10%	< 212 mic and > 150 mic
16.20%	< 150 mic and > 106 mic
16.15%	< 106 mic and > 75 mic
12.15%	< 75 mic and > 53 mic
6.35%	< 53 mic and > 38 mic
3.20%	< 38 mic and > 27 mic
4.25%	< 27 mic and > 19 mic
1.45%	< 19 mic and > 13 mic
.60%	< 13 microns

\*mic same as microns

### Head Shorts

Head shorts were blended with semolina at levels of 10, 15, 20, 25 and 30%. The Microtrac particle size analyzer utilizes a laser beam to determine particle sizes. The particle size distribution of the head shorts were as follows:

3.95%	> 300 mic
9.05%	< 300 mic and > 212 mic
21.40%	< 212 mic and > 150 mic
18.40%	< 150 mic and > 106 mic
16.00%	< 106 mic and > 75 mic
10.95%	< 75 mic and > 53 mic
9.55%	< 53 mic and > 38 mic
3.25%	< 38 mic and > 27 mic
5.40%	< 27 mic and > 19 mic
1.40%	< 19 mic and > 13 mic
.20%	< 13 mic

\*mic same as microns

### Cooking Quality

The feed stream/semolina blends were extruded on a De Maco continuous semi-commercial scale vacuum pasta extruder.

Cooking quality results were obtained for cooking times of 9, 10 and 12 minutes in distilled water. The 9 minute cooking time yielded 84% of the samples undercooked as shown by the presence of ungelatinized starch. Ten and twelve minute cooking times effectively cooked all samples.

Increasing spaghetti feed stream content reddens/browns spaghetti color. Cooked spaghetti appears brown/gray in color.

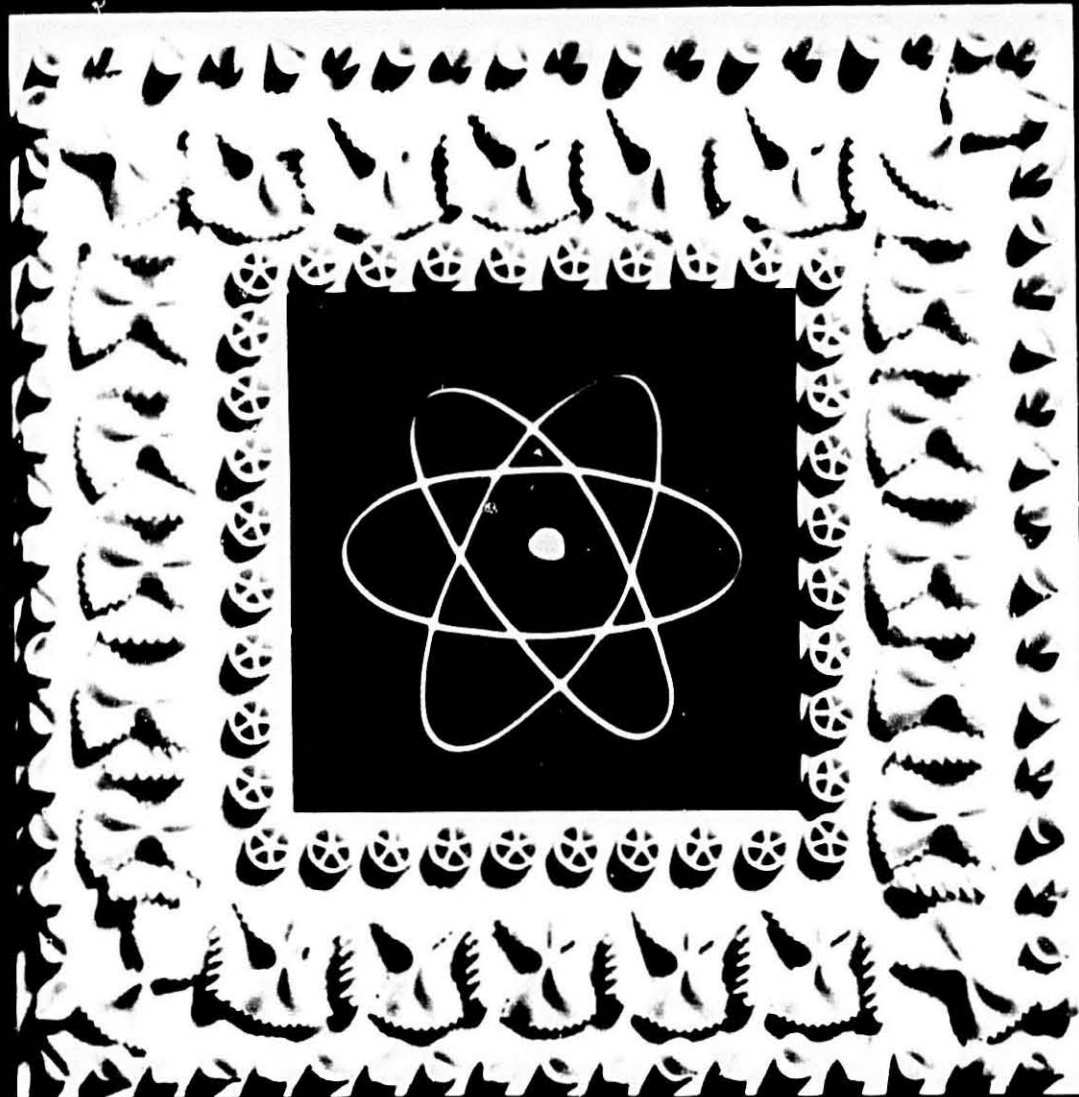
30% level of feed stream incorporation for both bran and head shorts had uneven coloration in the cooked spaghetti, a result of mixing difficulties. Results obtained from the cooking and processing were not straightforward, but some generalizations can be stated.

Samples with bran and head shorts added had higher cooking losses than the 100% semolina samples. Bran samples showed no differences in cooking losses than the 100% semolina samples. Bran samples showed no differences in cooking loss to the shorts. Neither bran nor head shorts generally had greater cooking losses with the increased percentages of head shorts. Neither bran or head shorts showed cooked weight trends with increasing incorporation, but all blends had lower cooked weights than the 100% semolina samples.

Firmness for head short samples was superior to the 100% semolina up through the 20% level of head shorts incorporation. Their firmness scores peaked 1.48 units greater than the 100% semolina samples. The 15% head shorts sample gave the highest firmness score. Levels of incorporation of 25 and 30% gave lower firmness scores than did 100% semolina. Bran added samples were also higher in firmness than 100% semolina samples up through 15% bran. The 15% bran sample had the peak firmness score for bran and was 0.8 units greater than the 100% semolina samples. Bran levels of 20, 25 and 30% had firmness scores lower than the 100% semolina scores.

All samples with feed stream incorporation dried without apparent stretching as determined by spaghetti diameter measurements.

(Continued on page 30)



# Pasta is an art and a science.

## An art

Pasta prepared in its many gourmet forms can be pure art. Fettuccine Alfredo, Cannelloni Alla Nerone, Stuffed Manicotti, Ravioli Alla Bardella, Piquant Vermicelli, Spaghetti with Bolognese Sauce, Be Chamel Sauce on Tortellini, Chicken Tetrazzini, Linguine in Clam Sauce.

The names alone are an art.

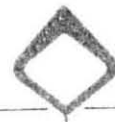
## A science

Pasta is also an ongoing work of R & D.

The scientific nutritional facts are that as a functional food, pasta is difficult to surpass. Its dietary contribution to the well-being of the active body is important as a source of macronutrients: thiamine, vitamin B<sub>6</sub>, and iron. And as the chart shows, pasta garnished with tasty accompaniments is an excellent source of protein and carbohydrates... with a minimum of calories.

	100 GRAMS EDIBLE PORTION				
	Protein (GMS)	Fat (GMS)	Carbohydrate (GMS)	Water (Percent)	Calories
Macaroni or Spaghetti	12.9	0.5	71.0	15.6	354
Tomato Paste	2.4	1.1	10.0	86.5	50
Tomato Puree	1.0	0.1	10.0	88.9	20
Cheese	25.0	33.0	1.0	31.0	402
Swiss	25.0	33.0	1.0	31.0	402
Parmesan	31.0	33.0	1.0	35.0	402
Hamburger	21.0	10.0	33.0	36.0	250
Lean, Cooked	21.0	10.0	33.0	36.0	250
Hamburger	21.0	22.0	33.0	34.0	270
Regular, Cooked	21.0	22.0	33.0	34.0	270

Pastas — let's tell it like it is.



**ADM**

4550 W. 100th Street, St. Louis, Missouri 63143 • (314) 381-7400

ADM also supplies quality shortening, corn sweeteners, CO<sub>2</sub>, soy proteins, dough conditioners and vital wheat gluten for the baking industry.



### Research Project

(Continued from page 27)

In summary of cooking results, the 15% bran incorporation level demonstrated the most favorable results for samples with bran added. No overall "best" for head shorts was observed.

Researchers conducting the cooking tests tasted each sample. They noted that bran samples gave more flavor than either head shorts or 100% semolina spaghetti samples. The flavor was agreeable.

All particle size studies were conducted at the 15% level of incorporation for head shorts and bran. The smaller bran particle sizes had a higher *al dente* cooked weight than the spaghetti using large particle size bran. Cooking loss and firmness results did not display trends.

Tensile strength was indicated by modifying the extensograph to record the force required to break 1, 2 and 3 spaghetti strands. Semolina/bran spaghetti requiring the greatest "breaking force" had the smallest bran particle size. A trend could not be established, since from largest particle size through the smallest the required "breaking force" was non-uniform.

#### Head Shorts

Head shorts did not show trends in any tests, but on the whole had greater tensile strength and firmness scores than the bran. They also had lower cooked weights than bran samples. Head short samples did not have as great a particle size range as the bran samples. The smallest bran particle size sample had approximately 1/3 of the particles < 53 microns, 1/3 > 53 and < 106 microns, and 1/3 > 106 microns. The largest bran particle size sample had not quite 1/3 of the particles < 75 microns, 1/3 > 75 and < 150 microns, and a little more than 1/3 > 150 microns.

1980 grown durum is used in this study, Crosby and Vic both grown in North Dakota, Mexicali grown in California's Imperial Valley and Mexicali grown in Arizona.

Physical and chemical studies have been conducted on the raw products. Upon selecting a satisfactory particle size they will be processed into spaghetti, and cooking tests will be completed.

A taste panel will be conducted to indicate market acceptability and size, plus to investigate its similarity to the "brown bread" market.

### Project Section Two

Project Section Two involves mineral binding studies on the feed stream fibers and the "fiber effect" in the cooked spaghetti. The analyses will be in three stages. The first stage consists of mineral analyses of Ca, Fe, Mg, Mn, P and Zn present in the raw and cooked samples. In the second stage, the quantitative binding capacity of the minerals will be evaluated. Finally, locational bindings of those minerals will be examined in relation to fiber properties and structures.

Procedure development for this work is forthcoming. Wet digestion in conjunction with atomic absorption spectroscopy will be used in the first stage. Phosphorous will be analyzed colorimetrically. Quantitative binding capacities of the minerals will be conducted in vitro at digestive pH ranges using radioactive labeling and liquid scintillation counting. Possible means of studying binding locations are by use of chelating agents and x-ray diffraction.

### Canadian Lab Report

(Continued from page 26)

in spaghetti cooking quality. The main effect of immature, grass green, and frosted green kernels was to increase ash levels, which in turn led to duller and browner spaghetti. The presence of shrunken kernels caused reduced test weight, higher ash, reduced milling yield, higher spect count and poorer color.

Although it was possible to demonstrate that starchy kernels, immaturity, and shrunken kernels were all detrimental to end-use quality, in some cases the quality effects were fairly subtle. However, it should be borne in mind that each grading factor was considered alone. Under normal circumstances several degrading factors would be present at once, each contributing to quality deterioration.

This project is being extended to consider other factors such as smudge and blackpoint, mildewed kernels, ergot and sprout damage. Results of these studies will be reported next year.

### Serving Consumers

"The best thing for the consumer is a well-oiled industry offering a variety of services to the consumer, with a lot of competition in that industry. Any time you artificially ration the supply of something its price is going to get

out of hand and the consumers won't be served at all." — Dr. Richard L. Leshner, president, U.S. Chamber of Commerce.

### Rossotti Consultants Associates, Inc.

Rossotti Consultants Associates, Inc., 158 Linwood Plaza, Fort Lee, New Jersey 07024; (201) 944-7972, is the successor to Rossotti Lithographing and Packaging Corporation, founded in 1898.

Charles C. Rossotti, President, is the direct descendant and son of the founder, Edward Rossotti. Mrs. Betty Rossotti is Executive Vice President and Secretary of the Corporation. Jack E. Rossotti is Vice President. He is the son of Charles C. Rossotti and the third generation in the Rossotti family active in the macaroni industry.

The Rossotti organization, operating as professional consultants to the macaroni industry has world-wide connections in all phases of the macaroni industry.

Starting as a lithographing and packaging organization, Rossotti has continued to expand its activities in sales promotion, marketing, merchandising and practically all phases of the macaroni industry, including production supplies, machinery and equipment, personnel, etc.

Rossotti also operates on a confidential basis concerning the buying and selling of macaroni plants and plants of allied industries.

Rossotti has designed and produced packaging on a nationwide basis for over seventy years. Rossotti has experience in sales promotion, having conceived many promotional plans and having studied many that others have launched throughout the industry. Rossotti has experience in marketing all types of macaroni, spaghetti and egg noodles and allied combination products with modern marketing methods. Rossotti can point the way in merchandising new products and lay out merchandising methods and programs.

The Rossotti's are considered leading consultants in all phases of the macaroni industry.

### Courage Counts

"Success is never found. Failure is never fatal. Courage is the only thing." — Winston Churchill.

**HOW TO S-T-R-E-T-C-H YOUR PACKAGING DOLLAR...**

**RALPH RICATONI RECOMMENDS—**

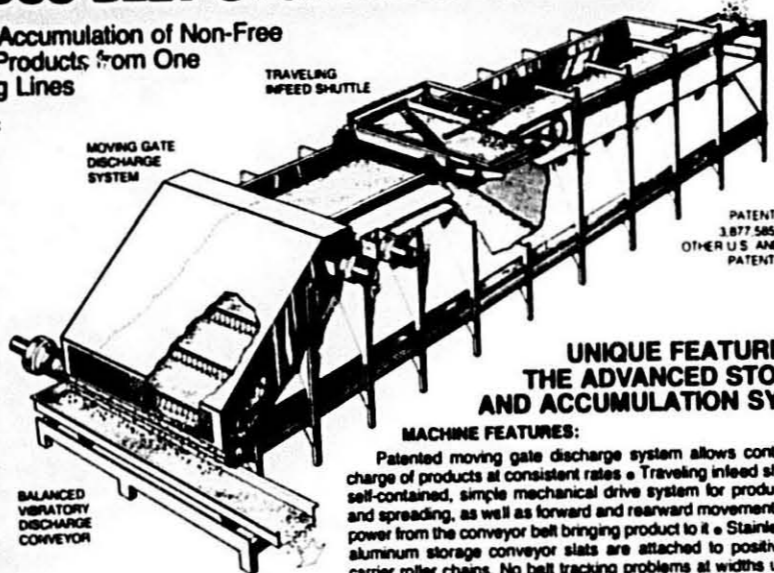
Call Today and Find Out  
**COOLEY SALES, INC.**  
913 362 6120  
1001 60th Street, Mission, KS 66202

## CONTINUOUS BELT STORAGE SYSTEMS

Allowing Constant Accumulation of Non-Free and Free Flowing Products from One or More Processing Lines

#### PROCESS ADVANTAGES:

- Permits greater line yields. Packaging line breakdowns do not cause process line shutdowns
- First product in is first out
- Allows single 8-hour packaging shift on 24-hour/day line
- Very uniform product discharge rates
- Automatic feed, accumulation and discharge with little or no breakage of delicate and fragile products such as flakes, chips, pellets, expanded items, noodles, frozen items, etc.



#### UNIQUE FEATURES OF THE ADVANCED STORAGE AND ACCUMULATION SYSTEM

**MACHINE FEATURES:**  
Patented moving gate discharge system allows controlled discharge of products at consistent rates • Traveling infeed shuttle uses self-contained, simple mechanical drive system for product sensing and spreading, as well as forward and rearward movement. It obtains power from the conveyor belt bringing product to it • Stainless steel or aluminum storage conveyor slats are attached to positively driven carrier roller chains. No belt tracking problems at widths up to 15' • Dynamically balanced vibratory discharge conveyor requires no sensing devices or level controls. Products are discharged in a very uniform stream • Single, double or triple storage levels.



**FOOD ENGINEERING CORPORATION**  
2765 NIAGARA LANE • MINNEAPOLIS, MINNESOTA 55441 • PHONE: (612) 559-5200

**Corrugated Shipments  
Up in '81 Despite 4th  
Quarter Slip; Inventories  
Hit New Record**

Shipments by the nation's corrugated box manufacturing plants were up 1.6% in 1981, according to preliminary data released by the Fibre Box Association.

"Total shipments of 245.2 billion square feet of boxes and other products made 1981 the second-best year in the history of the industry," according to Thomas J. Muldoon, FBA Executive Vice President. "Corrugated continues to be the number one packaging material," he noted, "with more than 10 boxes used to deliver the food and other goods used by every American."

An estimated 85 to 90% of all the shipping containers used today are corrugated boxes, Muldoon added. The balance include wood boxes, wire-bound crates, barrels, drums, bags and sacks.

"The plus figure for the year can be somewhat misleading," Muldoon said. "The final months of the year represented a business downturn. We were as much as 3.9% ahead of year-ago levels as recently as September 1."

Muldoon traced the quarterly shipment pattern back to 1979, which was both the previous record shipment year and one of the flattest in shipment trends. The quarter-by-quarter comparison shows the summer slump in 1980, modest recovery lasting through most of 1981, and the recent drop-off.

"Containerboard consumption in 1981 was up exactly the same amount as shipments, +1.4%," Muldoon noted. "The 17.7 million tons consumed is more than a quarter of all the paper and paperboard produced in the U.S., making corrugated the largest single product of the industry."

Mill production of containerboard for domestic use moved at a much faster pace, according to Muldoon, with output through November up more than 7%. "The result is increased inventory tonnage," he said. "The increase amounts to more than 700,000 tons, to a record 2.7 million tons." Translated into weeks of supply, measured against the low current shipment levels, "we've gone over the nine-week mark and reached the highest level."

The Association is conducting its annual census of industry data, and

**CORRUGATED INDUSTRY SHIPMENTS IN BILLIONS OF SQUARE FEET**

Quarter	1979	% Change	1980	% Change	1981P
1st	63.26	+0.3	63.45	-1.4	62.58
2nd	63.27	-7.5	58.55	+6.7	62.47
3rd	62.12	-6.0	58.42	+6.9	62.43
4th	62.00	-1.7	60.96	-5.3	57.73
Year	250.64	-3.7	241.38	+1.4	245.21

P = Preliminary.

will release final 1981 data in April. Final numbers are usually within one-half percent of the preliminary figures.

**FBA Restructured**

At a meeting held in Savannah, GA, on February 3, the Board of Directors of the Fibre Box Association unanimously agreed that the trade group which represents the corrugated box industry in the United States should be restructured. Details of the proposed changes along with a set of amended By-Laws have been provided to all members of the Association for ratification of the action.

All of the current activities of the group were examined carefully, in an effort to retain only essential statistical services and contact with government and other regulatory agencies.

The restructuring will take effect on April 1, 1982. Under the new plan, the Association will continue to provide basic statistical services and to collect and disseminate data on labor settlements. The other important service being provided is an interface with government agencies and bureaus on matters which affect the corrugated box industry, and with other trade and professional associations. The FBA will continue to represent the industry in areas of concern.

A number of the current services which were not deemed essential have been discontinued and therefore the staff has been reduced. Thomas J. Muldoon, Executive Vice President, will continue to be the chief operating officer and Henry J. Daluga will serve as his assistant. The two will be aided by support personnel.

**Marketing Considerations**

Steven E. Scott, Scanning Trade Service, Development Manager A. C. Nielsen Company writes in the Nielsen Researcher:

The supermarket industry may be 50 years old, but it is growing and

changing every day. More recent changes include:

- Increased store sizes.
- Increased emphasis on one-stop shopping with new stores offering delis, bakeries, pharmacies, floral shops, and even banking facilities.
- New competition. Supermarkets now complete with warehouse stores, box stores, drug stores, and mass merchandisers.
- New merchandising strategies. Generics; specialty, gourmet, and natural foods; and coupon redemption strategies are all examples of this.
- New products, programs, and services that are being offered by an ever-changing list of suppliers.
- New technology that is touching many components in the distribution cycles, and
- A changing economic environment that has had an impact on manufacturer, retailer, and consumer alike.

In contrast, basic business objectives have not changed as dramatically.

Marketing managers or selling executives are still charged with the responsibilities of . . .

- Serving the consumer,
- Increasing sales and profits,
- Increasing market position,
- Using resources more effectively and efficiently, and
- Increasing their knowledge of the marketplace.

The challenge facing all of us today and in the future is being alert to these changes, measuring their impact on business resources and strategies, and acting or reacting as best can be determined. This will intensify the need for information sources that are faster, more sophisticated, and more directional. Traditional information sources alone will not be adequate.

**78TH ANNUAL MEETING  
National Pasta Association  
July 11-15, 1982**

THE MACARONI JOURNAL

**FROZEN EGGS • DRIED EGGS • LIQUID EGGS**

OLDACH, WILLIAM H. INC. (609) 665-4664  
#5 EXECUTIVE CAMPUS  
CHERRY HILL, NEW JERSEY 08002

Hugh G. Oldach

**OLDACH . . . The First Name to Call For  
Your Egg Ingredient Needs,  
with over Forty Years of Dependable Service To  
THE PASTA INDUSTRY**

**WHOLE EGGS • EGG YOLKS • BLENDS • EGG WHITES**

**MACARONI JOURNAL**

Keep up with the fast moving macaroni-egg noodle business.

Read the publication every important macaroni and noodle maker in the United States and Canada reads.

Send in your subscription today.

P.O. BOX 1008  
PALATINE, ILLINOIS 60067, U.S.A.

Please enter one year subscription:  \$14.00 Domestic  \$17.50 Foreign

Name \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_

City and State \_\_\_\_\_ Zip \_\_\_\_\_

Renewal \_\_\_\_\_ New Subscription \_\_\_\_\_

### Salvatore Di Cecco

Salvatore Di Cecco, R.R. #1, Richmond Hill, Ontario, Canada, L4C 4X7, Tel. (416) 773-4033, Telex No. 06-986963.

Fifty years of his life directly involved in the macaroni production and sales on two continents have installed in Mr. Salvatore Di Cecco a unique knowledge and affection for the macaroni industry.

#### From Italy

Born in Palena, Abruzzo, Italy on the 13th day of February, 1915 in a family that had been macaroni manufacturers for two generations, he quickly developed a keen devotion for his family business. With great interest, he learned the skills of his father and uncles, and at the young age of 18 years, he was already production manager of the world-renowned Filla De Cecco Macaroni Plant in Fara San Martino, Italy. He remained there until the age of 28 by which time he had been in charge for several years of both the macaroni plant and flour mill.

From 1943 forward, Mr. Salvatore Di Cecco went on to build, operate, and manage a series of successful macaroni plants starting first in the Republic of San Marino, then Modena, and later Rome. His innovation skills linked him very closely with all European manufacturers of macaroni manufacturing and packaging equipment who promoted his involvement in the consulting field. Although a macaroni manufacturing entrepreneur himself, his interest to promote and perfect the macaroni industry made him a greatly sought-after and respected consultant and promoter.

In 1959, he was retained as a consultant by Count Matarazzo of Brazil to supervise, restructure, and improve every facet of Count Matarazzo's gigantic Brazilian macaroni industry. In 1960, Mr. Di Cecco decided to transfer his whole family to Canada and accepted the position of plant manager of the newly created Romi Foods Ltd. in Toronto where he remained until 1970.

#### Sales Agent

For the last several years, Mr. Salvatore Di Cecco has operated his own business as North American sales agent of the most prestigious and advanced

producers and manufacturers of equipment for the macaroni industry. Adhering to his desire to improve and perfect the production procedures of his customers, he has left the sales motivation always secondary to his desire to help and to gain the gratitude and respect of all members of the macaroni industry. He represents the Ricciarelli, Bassano, Niccolai, and Brambati firms in North America.

#### Ricciarelli

Ricciarelli is the renowned manufacturer of packaging equipment and Bologna-Style stamping machines. Well established in this field for over 150 years, it has always been the trend-setter in innovation and efficiency. Its machines are designed for durability, minimum and simple maintenance, speed, precision, and aesthetic appeal of the finished product. It covers the range of packaging all products from form film to cartons. It provides machines for the full packaging process including loading, transporting, weighing, packaging, bundling, etc. Ricciarelli equipment has already been introduced on a large scale in North America and prospective purchasers are invited to obtain references from all of Ricciarelli's clients which include: The Creamette Company (Winnipeg and Minneapolis), Primo Importing, Lancia Bravo, Skinner Macaroni, Viviano Macaroni Company, Gioia Macaroni, A. Zerega & Sons, Catelli Primo Ltd., Foulds Inc., Romi Foods, Gattuso, Unico Foods, Ravarino & Freschi, and the Pillsbury Company (American Beauty).

#### Bassano

The Bassano firm has been manufacturing macaroni production equipment in Lyon, France, since 1953. Conceived and operated as a family business, it has maintained and solidified its capacity in the international field by joining with the Alstom-Antique Group. It is the owner of the unique Rolinox patent and the successful pioneer in the drying of pasta at high temperatures. Its machinery is constructed for unique durability and designed for complete and easy accessibility and maintenance. Its equipment uses the latest and most advanced systems of insulation and super-sanitary materials. It has been avant garde in the high temperature drying of pasta leading to the revolutionary pro-

cess of drying pasta at temperatures in excess of 110° C. or 212° F. with its latest systems which combine the conventional and the Rolinox process drastically reducing production time and space, eliminating any checking and producing a product excellent in appearance and cooking performance. It uses special rust-proof structural materials with efficiency-unsurpassed insulation. More than ever in this new era of very high temperature drying the unique quality, strength, durability, and dependability of Bassano's equipment and machinery are what the far-sighted and enterprising macaroni industrialist should seek.

#### Brambati

The Brambati firm, also a family operation, has been in business for at least fifty years. It is highly specialized in the manufacturing of systems for the pneumatic conveyance and blending of semolina and flour, storage for noodles and short-goods macaroni products, and dry pasta mill grinders.

#### Niccolai

The Niccolai firm is a long-established Italian manufacturer of dies and die washing machines. It makes dies of all shapes and specifications in bronze shapes and specifications in bronze-aluminum or other high-resistance alloys. Its dies are manufactured with interchangeable bronze, glass and/or teflon cartridge inserts with special inoxidur treatment on the cut surface. Premoulding inserts are in bronze and the pins in stainless steel. Compensating plates and safe die filters are made in stainless steel. It is a patent holder of automatic cutting apparatus. Its die washing machines can contemporaneously wash round and rectangular dies. Parts that come in contact with water are all in either stainless steel or bronze and the machine is equipped with ecologic water recovery and decantation tanks and may be purchased with or without pumps.

For any further information or assistance you are invited to contact Mr. Di Cecco without any obligation on your part.

78th Annual Meeting  
National Pasta Association  
July 11-15, The Broadmoor  
Colorado Springs, CO

THE MACARONI JOURNAL



## THE BEST PASTA STARTS WITH THE BEST EGGS

We have been trusted suppliers to the pasta industry in the U.S. and abroad for nearly 30 years.

There's a reason for the reputation. Manufacturers know they can rely on the quality of Wakefield Eggs... and they know they can depend on us to deliver when and where they need our products. Our customers are sold on our service. Can we be of service to you?

CALL DEAN HUGHSON  
TOLL FREE 800-228-8176

MILTON G. WALDBAUM  
Company

Wakefield, Nebraska 68784

TWX (910) 623-8000 WALDBAUM WAFL

APRIL, 1982

### SALVATORE DI CECCO

Exclusive Sales Representative for:

#### RICCIARELLI:

Automatic Packaging Machinery in cartons or cellophane bags for Long and short goods macaroni Cereals, rice, dried vegetables, coffee, cocoa, nuts, dried fruits, spices, etc.

#### BASSANO:

Complete pasta lines equipment Rolinox patented processing equipment

#### BRAMBATI:

Systems for pneumatically conveying semolina and flour Storage for noodles and short goods Macaroni products Dry pasta mill grinders

#### Address:

R.R. 1, Richmond Hill, Ontario L4C 4X7  
Canada  
Phone: (416) 773-4033  
If No Answer, Call Alessandro Di Cecco,  
898-1911  
Telex No. 06-986963

### DO YOU NEED?



Charles M. Hoskins

- Pasta Production Lines?
- Noodle or Macaroni Storage Systems?
- Problems Solved?

Call HOSKINS COMPANY

DEMACO Pasta Production Lines.

ASECO Pasta Conveying and Storage Systems.

CHARLES M. HOSKINS consulting.

HOSKINS COMPANY

Phone: 312-362-1031

TWX 910-684-3278

P.O. Box F

Libertyville, IL 60048

HOSKINS LIBY.

35

## Old Pasta Maker Looks Toward The Future

Fould's, Inc., one of America's oldest producers of macaroni products, has improved its competitive position in the long goods market with the startup of a new High Temperature Long Goods Line.

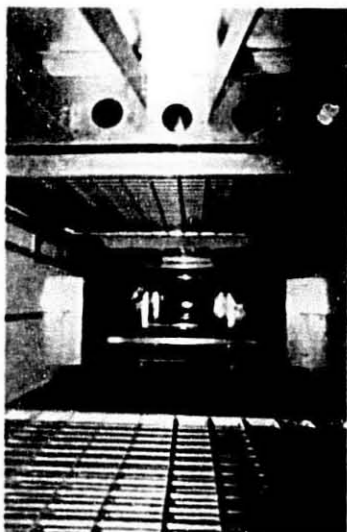
The new line, which was designed and built by the DeFrancisci Machine Corporation (DEMACO) of New York City, represents several new breakthroughs in long goods technology, including Computer Control.

### Compact

"We never thought we could fit a continuous system in our plant without seriously disrupting our plant layout" said Fould's Production Chief, Joseph A. Bradley, Jr.

The Fould's plant has its presses on the lower floor, with most of its drying equipment on the upper floor. The new dryer is continuously fed from the press by means of a chain conveyor through a hole in the floor.

"The reason we could meet their low ceiling demands was that the dryer was designed for vertical expandability. In other words, two more tiers can be added on top of the basic drying tunnel," says DEMACO Chief Engineer, John DeLuca. This modular design concept allows production capacity to be doubled with a minimum of time and money.



Inside view of dryer, showing reheat coils and stick transfers.



Joe Bradley

Because of this, a plant with low ceilings will now be able to use continuous drying.

The dryer also does not require much floor space. A 1000 lbs/hr. line takes up only 100 linear feet.

### Microprocessor Control

A Z80A-based microprocessor regulates many of the functions of the dryer. Special sensors within the drying chamber provide information to the computer, which starts and stops all fans, blowers and drives according to its program.

A quick look at the fan panel shows the improved simplicity of operation. Only a few switches and buttons do the work of several dozen on older dryers. For example, to "bank down" the dryer at the end of a run, all one has to do is turn off the press. The microprocessor will automatically execute the bankdown procedure without supervision, so that every stick is properly dried.

### Open Tunnel

"One thing we have strived to preserve is the open tunnel design. Our

customers have liked it over the years, since it saves them cleaning and maintenance time", says DEMACO's Leonard DeFrancisci. In order to do this, a unique thermodynamic system was developed. Special "reheat coils" are alternated between the top and bottom of the upper tiers. These are designed integrally with the structure to permit walking traffic.

As Mr. Bradley puts it "It's relatively easy to do a good cleaning job. There are not too many nooks and crannies."

### Hot Dryer Cool Plant

The closed-loop thermodynamic system results in no thermal contamination between the dryer and its environment. This results in a comfortable room temperature despite dryer heat.

"We have a very drafty plant" says Mr. Bradley. "It was difficult to dry consistently in rooms."

New sealing methods do a very good job of keeping the heat in. "I put my hand right on the panels and felt no heat at all, yet it was 168°F inside" said DEMACO's, Joe DeFrancisci. Trapdoors known as "Airlocks" keep the dryer closed when no sticks are entering.

### Quality

The proof of the pasta is in the eating. According to Mr. Bradley, "The



Fan panel showing micro-processor readout.

product is quite good. We bought this dryer mainly for its operating convenience. The product improvement is a nice dividend. We can cook our spaghetti almost 20 minutes and still have some bite left. Color and straightness have also been improved."

Fould's has proven that sometimes the oldest companies are the most forward-thinking. After all, we'd all be better off if we planned for our next 100 years.

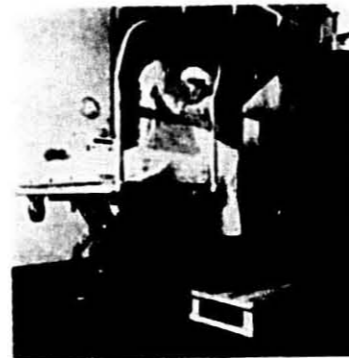
### Lift Reduces Bending

Before the recent installation of a 1,000-lb. capacity American hydraulic scissor lift at Tsue Chong Co., workers at the Seattle Washington wholesale noodle manufacturing plant were repeatedly bending and stretching to hand load raw chow mein noodles from bottom wire baskets on a cart into a noodle fryer for cooking.

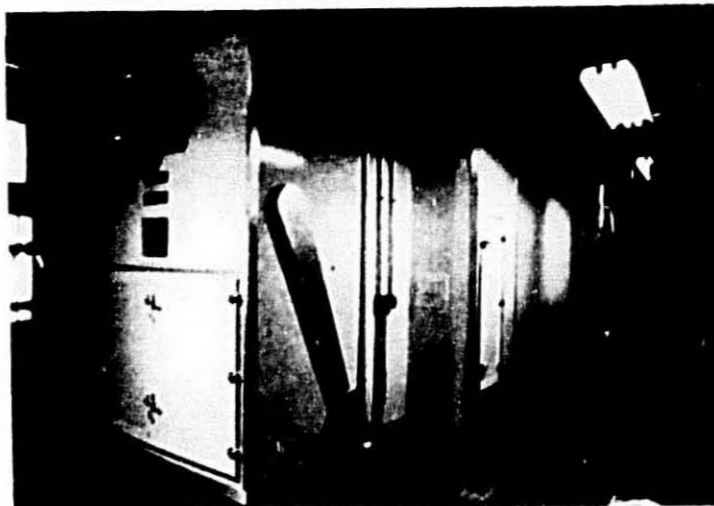
Now, carts are placed on the lift and raised in increments so each tier of baskets is at the most convenient height to unload the noodles onto a conveyor belt leading to the fryer. The lift is made by American Manufacturing Company Inc., Tacoma, Washington.

"With the lift, workers can easily unload all 10 baskets on the cart without lifting or handling the heavy baskets," says Ken Louie, president of Tsue Chong. "Eliminating much of the bending and lifting by workers provides a safer, more productive operation."

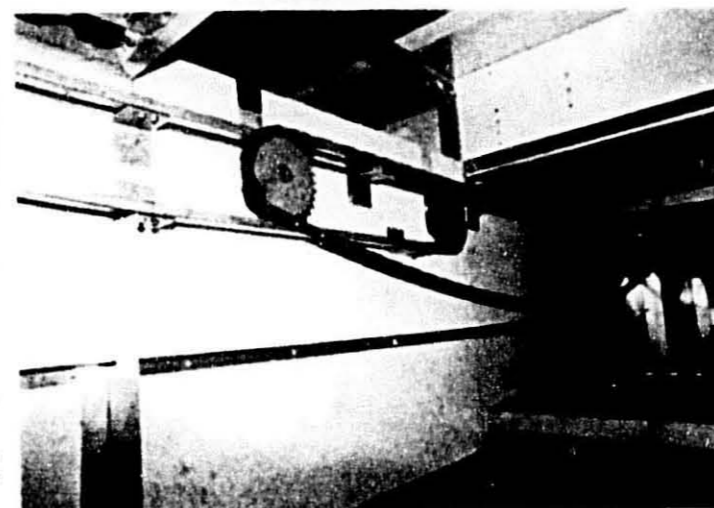
As the string noodles are cut to size, workers put them into baskets which



Baskets of noodles at Tsue Chong Co., Seattle, are raised to convenient height for easy access by lift, made by American Manufacturing Company Inc., Tacoma, Washington.



Front View — High Temperature Long Goods Dryer.



Simple method to adjust stick spacing.

### Baskets Placed on Carts

are placed on carts to form several tiers, then moved by elevator upstairs to the deep fryer. Each cart is rolled into position over the lift where one worker begins to unload the top basket of noodles. After each tier of baskets is emptied, the worker removes the top baskets from the cart and with the lift control raises the next tier into convenient unloading position with the lift.

When all baskets have been unloaded, the operator lowers the lift until the wheels of the empty cart reach the

floor, then rolls the cart away. Constant pressure pushbutton lift controls mounted on both sides of the fryer allow any worker to operate the lift from either side of the fryer without reaching over the hot equipment.

The noodles are cooked for two minutes at 380 degrees F., then moved by conveyor out of the fryer, cooled by vapor fan, and conveyed into corrugated boxes for shipping.

In case of electric power loss, the lift is equipped with a pressure compensated flow-control valve that will

(Continued on page 40)

**BUHLER-MIAG** SHORT GOODS LINES...

# Performance You Can Depend On!



Models TRBB and TTBB Capacity: up to 10,000 lbs/hr

MODEL		CAPACITY, LBS/HR
PRE-DRYER	FINAL DRYER	
TRT	TTT	500- 2,000
TRNA	TTNA	1,000- 4,000
TRNC	TTNC	2,000- 6,000
TRBB	TTBB	4,000-10,000

*Integrity...  
in design  
in construction.*

### Efficient Energy-Saving Design

- High temperature and high humidity drying, requiring a minimum volume of fresh air. The most energy-efficient design!
- Panels 1 1/2" thick with polyurethane foam core. Aluminum lining on inside for heat reflection and absolute vapor barrier. No heat bridges.
- Smaller, high-efficiency units require less floor space.
- Circulating air fan motors are mounted inside dryers, utilizing 100% of electrical energy. (New type of energy-efficient motor is available).
- Built-in heat recovery system (optional) utilizes exhaust air heat.

### Bacteria and Sanitation Control

- High temperature drying controls bacteria. Dry bulb temperature adjustable from 100°F to 180°F.
- Doors are in front panel for product control during operation. They also give easy accessibility for weekly cleanouts. Swing-out side panels extend entire dryer length, allowing fast cleanout and service.
- Dryer is absolutely tight, yet easy to clean, maintain and supervise.

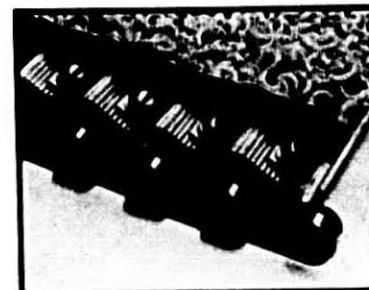
### Top Quality Product

- Each dryer is equipped with a patented, U.S.-built BUHLER-MIAG Delta-T Control System that allows the product to adjust its own drying climate. The result is a stress-free, nice yellow-colored final product.
- High drying temperatures, in combination with ideal drying time, increase cooking quality of final product.
- Product losses are minimized through the entire production process, including startups, shutdowns, production interruptions and die changes.

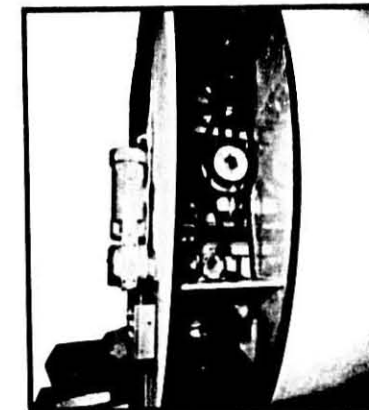
### Product Quality is What Really Counts!

Top-grade quality is yours from BUHLER-MIAG equipment. Your customer recognizes and deserves it. Can you afford to give him less?

Contact us for information on BUHLER-MIAG Short Goods Lines and other Macaroni Processing Equipment



Product conveyor belt made of special heavy duty roller chains, extruded aluminum alloy "S"-shaped elements and anodized aluminum product side guides. Automatic conveyor chain tensioner and lubrication system.



Each dryer is equipped with two drive stations. Special safety device protects drives. Gearmotors mounted outside panels for long life and easy service. AC or DC variable speeds. Standard U.S. built drive components.



**BUHLER-MIAG**®

BUHLER-MIAG, INC., P.O. Box 9497, Minneapolis, MN 55440 (612) 545-1401  
BUHLER-MIAG (Canada) LTD., Ontario (416) 445-6910

### Lift Reduces Bending

(Continued from page 37)

prevent sudden lowering movement of the unit. Scissor stabilizers under the 36" x 84" welded steel lift deck are designed to support loads up to 50 percent off center, allowing workers to unload one side of the cart at a time.

Tsue Chong manufactures over 1,000 cases of chow mein noodles during the three-day week operation. The noodles are shipped to restaurants and institutions along the west coast.

### Food Engineering Corporation

The following is a listing of the various machines and equipment that are manufactured and offered for sale by Food Engineering Corporation, Minneapolis, Minnesota.

1. Conveyor Belt Dryers and Coolers
2. Rotary Dryers, Coolers and Sterilizers
3. Continuous Belt Storage Units (accumulators for dry or finished products)
4. Live Bottom Surge Units (accumulators for wet, doughy or sticky products)
5. Vibratory Conveyors, including Scalpers, Feeders and Distribution Conveyors
6. Rotary Coating Drums (Enrobbers)
7. Slat Conveyors
8. Belt Conveyors
9. Screw Conveyors
10. Flaking Roll Feeders
11. Macaroni Short Goods/ Noodle Dryers
12. Steam Cookers/Conditioners, conveyor belt type
13. Spiral Let Down Chute
14. Rotary Conveyor Belt Doffers
15. Product Distributors for uniform spreading
  - a. Oscillating Chute, constant velocity type
  - b. Oscillating Conveyor Belt, constant velocity type
  - c. Oscillating Vibratory Conveyor, constant velocity type
  - d. Vibratory Conveyor, diagonal slot type
  - e. Vibratory Conveyor, diagonal slot type with product fines or lump removal screens
  - f. Forced Spreader for sticky or non-free flowing products,

- g. rotary "Rams Horn" type
- h. Forced Spreader for sticky or non-free flowing products, reciprocating rake type
- i. Forced Spreader for sticky or free flowing products, stationary plow type
- j. Sweep arm type with troughed round bottom conveyor belt
16. Tailings Reclaim Loop Conveyor System for conveyor belts drain type
17. Bin Storage Systems for bulk finished products
18. Dew Probe Air Sampling Assemblies
19. Machine feet, cone shaped with built in leveling jacks, various sizes
20. Aluminum Retaining Wall Systems for grain storage, earth retaining, etc.

### A Record 102.4 Billion Coupons Distributed in 1981

Distributions of cents-off coupons passed the 100 billion barrier in 1981. Manufacturers distributed a total of 102.4 billion coupons during the year, according to Nielsen Clearing House estimates.

This reflects an increase of 11.8 billion coupons (13%) over the 90.6 billion circulated in 1980. In the last four years couponing activity has increased 65%, with distributions, rising from 62.2 billion in 1977 to 102.4 billion this past year.

Daily newspaper R.O.P. solo offers accounted for 27.3% of total coupon distribution in 1981, while co-op offers in daily newspapers represented 17.7%. Further gains were made by Sunday free-standing inserts, whose share of distributions rose from 14.9% in 1979 to 26.2% in 1981. Magazines held an 11.8% share of coupons circulated this past year. Direct mail offers accounted for 3.3% of total dis-

Coupons Distributed (Billions)	1979	1980	1981
Coupons Distributed by Media	81.2	90.6	102.4
% of Coupons Distributed by Media			
R.O.P. Solo	36.2%	31.1%	27.3%
Daily Newspaper Co-Op (All)	16.1	17.1	17.7
Sunday Paper	9.5	9.0	7.3
Sunday Fr-St. Insert	14.9	18.4	26.2
Magazine	12.2	13.3	11.8
Direct Mail	3.2	3.4	3.3
In/On Pack	7.9	7.7	6.4
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

tribution, while in/on pack promotions represented 6.4% of all coupons circulated by manufacturers. Summarized below are the trends in couponing activity over the last three years:

### Food Spending

From USDA National Food Review

The Nation's consumers sharply increased their expenditures for food prepared at home while cutting back on restaurant dining during the spring quarter of 1981. This spending pattern was a repeat of the first half of 1980. Weakened consumer purchasing power appears to explain much of this spending pattern; however, food-at-home prices fell between the winter and spring quarters, while restaurant prices rose at about the same pace as general inflation.

Second-quarter Personal Consumption Expenditures (PCE) for food, at \$332 billion, were 1.5 percent above the first quarter and 12.5 percent above the second quarter of 1980. But, when adjusted for food-price inflation, apparent volume was only 2 percent above the same period a year ago.

All of the quarter-to-quarter increase was due to a 2-percent increase in grocery store purchases, which rose to \$243 billion. Restaurant meals and snacks remained unchanged at \$89 billion. But, because grocery store food prices dropped about 1 percent, apparent, food-at-home volume was nearly 3 percent higher. Restaurant prices rose about 1.5 percent, so that sales adjusted for price increases were 1.5 percent lower.

The 2-percent quarter-to-quarter increase in disposable personal income, to \$1,880 billion, was almost totally absorbed by inflation. On a per capita basis, real disposable personal income (in 1972 dollars) fell by more than 0.5 percent.

# "Flex time" scheduling ...pinpoint delivery time!



## BUYERS' GUIDE

The following firms support the industry's trade association as associate members and/or as advertisers in the Macaroni Journal:

### DURUM PRODUCTS

**A D M MILLING Co.**, Box 7007, Shawnee Mission, Kansas 66207. Manufacturers of Comet No. 1 Semolina, Romagna Durum Granular, Goldenglo Fancy Durum Patent Flour, Palermo Durum Patent Flour. See ad pages 28 and 29.

**AMBER MILLING**, St. Paul, Minnesota 55184. Telephone: (612) 646-9433. Manufacturers of Venezia No. 1 Semolina, Imperia Durum Granular, Crestal Durum Fancy Patent Flour, and Kubanka Durum Flour. See ad on page 11.

**GENERAL MILLS, INC.**, Sperry Division, Bakery Flour Sales, Western Region, P.O. Box 10-730, Palo Alto, California 94303. Manufacturers and distributors of Royal and Golden Durum Granulars; Sperry Macaroni Flour; Gold Medal Semolina No. 1; Exalto Durum Clear; Gold Medal Durum Flour. Northern California and Pacific Northwest call: Jean Hassell, Marketing Manager (415) 327-0372; Southern California call: Don Anderson (213) 583-4335.

**INTERNATIONAL MULTIFOODS CORP.**, Durum Product Division, 1200 Multifoods Building, Minneapolis, Minnesota 55402. Manufacturers of Duregg Egg Noodle Mix, Como No. 1 Semolina, Capital Durum Granular, Capital Fancy Durum Patent, Ravenna Durum Patent, Bemo Durum First Clear and Naples Durum Second Clear. Duregg (TM). General offices in Minneapolis. Principal durum mills in Baldwinville, New York, and St. Paul, Minnesota. See ad on page 52.

**KERR PACIFIC MILLING CORP.**, P.O. Box 1476, Pendleton, Ore. 97801; Phone (503) 276-6511. Durum products. Mr. Dan Breland.

**NORTH DAKOTA MILL AND ELEVATOR**, Grand Forks, North Dakota 58201. Manufacturers of Durakota No. 1 Semolina, Perfecto Durum Granular, Excello Fancy Durum Patent Flour, Nodak Durum Patent Flour, Red River Durum Flour, and Tomahawk Durum Flour. General Sales Office: W. Leo Cantwell, Director of Marketing (701) 795-7228; V. M. "Skip" Peterson, Sales Manager (701) 795-7224. See ad page 5.

**PEAVEY COMPANY FOOD GROUP** (Milling Division), Peavey Building, 730 - 2nd Avenue South, Minneapolis, Minnesota 55402. Manufacturers of King Midas No. 1 Semolina, King Midas Durum Granular-King Midas Durum Fancy Patent Flour, Kubo Durum Fancy Patent Flour, Uno Durum Patent Flour. General Sales Office, Minneapolis. W. M. Wingate, V.P. Sales (612) 370-7850; William H. Grady, (612) 370-7837; Wayne Mosey, (612) 370-7880. District Sales office in New York: Gerald P. Marron (914) 428-1250. District office in Elk Grove Village, Illinois (312) 640-7122. See ad pages 24 and 25.

**SEABOARD ALLIED MILLING** Department of CARGILL, INC., P.O. No. 2969, Shawnee Mission, KS 66201. Telephone: Area Code 913-677-7400. Lin L. Lundgaard, Henry L. Sumpter, John LaSpina. Complete line of durum products milled in Albany, N.Y. and Port Allen, LA. See ad pages 41 and 42.

### EGGS

**BALLAS EGG PRODUCTS CORPORATION**, 40 North Second Street, P.O. Box 2217, Zanesville, Ohio 43701. Sales office in New York City. Packers of pasteurized frozen and spray dried high color yolks for the noodle trade.

**BROWN PRODUCE CO., INC.**, Farina, Illinois 62838, (618) 245-3301, has been servicing the macaroni-noodle industry for over twenty-five years with a full line of colored egg yolk and whole eggs, special blends made on request. Products are marketed under the brand name of Bake-Rite and distribution is coast to coast. The company is fully integrated with its own feed mills, egg production, and storage facilities and able to quote your short or long term needs.

**CUTLER EGG PRODUCTS INC.**, 612-30 Sedgley Avenue, Philadelphia, Pa. 19140. Mr. Harold M. Cutler—Sales Telephone: Area Code (205) 585-2268. Packers and distributors of frozen eggs and egg solids. Processing plant: Industrial Park Road, Abbeville, Alabama 36310.

**EGG CORPORATION OF AMERICA**, 583 Broadway, P.O. Box 119, Westwood, NJ 07675. "Total suppliers of eggs to the Macaroni Industry." \* Shell \* Liquid \* Frozen \* Dried \* Blends. Seasonal or High Color.

**HENNINGSEN FOODS, INC.**, 2 Corporate Park Drive, White Plains, New York 10604. (914) 694-1000. Manufacturers of Free Flowing Egg Yolk Solids, Free Flowing Whole Egg Solids, Dehydrated Chicken, Beef, Ham and Turkey products. Sales offices in each of the major cities in the United States, Western Europe, Japan, Mexico and South America. Technical assistance available. Samples sent on request. For information, contact: Vito J. D'Agostino, Michael H. Cruger, Kit Henningsen, Richard Reynolds at White Plains, Mid West—Frederick W. Hartfelder at (800) 228-2768; West Coast — Mike Nolan at (714) 598-1016. See ad on page 45.

(Continued on page 44)

## Buyers' Guide

(Continued from page 43)

**MONARK EGG CORPORATION**, 601 East Third Street, Kansas City, Mo. 64106; (816) 421-1907. Manufacturers of all Dried and Frozen Egg Products, including Whole Egg Solids, Egg Yolk Solids, Egg White Solids and blends. Main office in Kansas City. Facilities located in Missouri and Kansas.

**NATIONAL EGG CORPORATION**, P.O. Box 608, Social Circle, Georgia 30279. Telephone: (404) 464-3852. Egg Yolk Solids, Free Flow. Whole Egg Solids, Free Flow. See page 19.

**WILLIAM H. OLDACH, INC.**, #5 Executive Campus, Cherry Hill, N.J. 08002; Phone (609) 665-4664. Specializing in egg products sale and distribution to discriminating food manufacturers with strict adherence to quality specifications. Liquid-Frozen-Dried. See ad on page 33.

**SCHNEIDER BROS., INC.** 5332 S. Western Avenue, Chicago, Illinois 60609. Mr. Morris Schneider, president; Clifford Schneider, V.P. Sales & Marketing, Chicago, IL; Sidney Schneider, V.P. Dried Egg Division; Sandy Seidner, V.P. National Sales, Phoenix, AZ; Don Potts, Sales Manager, Atlanta, GA. Liquid frozen and dried egg products. Telephone (312) 776-0100.

**MILTON G. WALDBAUM COMPANY**, Wakefield, Nebraska 68784. Phone: (402) 278-2211. (800) 228-8176. TWX 9106235000 Waldbaum, WAFL. Dean Hughson, Product and Export Manager, Egg Processor. Fresh shell eggs, fresh liquid egg, frozen whole eggs or egg yolks. Special package size available. Dark color whole eggs and egg yolks available on contact. Experienced exporter. See ad page 35.

## CHEESE

**COMMERCIAL CREAMERY COMPANY**, S. 159 Cedar St., Spokane, WA 99204. Manufacturer of dehydrated products, specializing in powdered sauces for pasta. Telephone (509) 747-4131. Toll free (800) 541-0650. Telex: 326439. Bud Gilmartin, President; Dr. Judy Kintner, Technical Director.

## MANUFACTURING EQUIPMENT

**ASECO CORPORATION**, 8857 West Olympic Boulevard, Beverly Hills, California 90211. Engineers and manufacturers of complete storage systems for noodles, cut goods and specialty items. Product Lines: Aseco overlapping bucket lifts (elevators), belt conveyors-sanitary, accumaveyors, vibratory conveyors and scalping screens, modular distribution systems—vibratory and belt, selectomatic bin storage systems, automatic continuous blending systems. Services: Engineering and plant layout for complete macaroni plants from storage to warehouse. Supervision and installation of all equipment. See ad page 17.

**DOTT, INGG, M., G. BRAIBANTI & COMPANY**, Largo Toscanini 1, 20122 Milano, Italy. U.S. and Canada Office: Braibanti Corporation, 60 East 42nd Street, New York, New York 10165, Phone (212) 682-6407, Telex 12-6797 BRANY NYK. Manufacturers of completely automatic lines for producing long, twisted and short goods. Production lines from 5,000 to more than 200,000 pounds of finished product per day. Pneumatic flour handling systems. All types of specialty machines, including ravioli and tortellini. Free consulting service for factory layouts and engineering. See ad pages 46 and 47.

**ZAMBONI**, Via G. Verga, 3 40033 Casalecchio de Reno, Bologna, Italy. U.S.A. and Canada Office: Braibanti Corporation, 60 East 42nd Street, New York, New York 10165, Phone: (212) 682-6407, Telex 12-6797 BRANY NYK. Manufacturers of coiling machines, ravioli machines, nesting machines. Cartoning, weighing and bag packing machines.

**BUHLER-MIAG, INC.**, 1100 Xenium Lane, Minneapolis, Minnesota: 55440; Telephone (612) 545-1401. Palling, engineering and consulting for complete macaroni factories. Manufacturers of complete macaroni processing lines:

— for short goods; presses, shakers, dryers, coolers, bins as well as belt storage systems.

— for long goods; presses, spreaders, dryers, coolers, cutters, stick and cut product storage units

— for twisted goods; presses, twisters, dryers (also Nidi machine) Specialty Processing Equipment:

— steamer (for instant product)

— extruders for snack foods

We also offer a complete line of laboratory equipment, and a die washer for every size and shape of die used in the macaroni industry. Buhler-Miag's engineering and manufacturing staff can supply you with complete semolina and flour bulk handling systems including dust control equipment.

Sales offices at 590 Sylvan Avenue, Englewood Cliffs, New Jersey 07632; phone (201) 871-0010, and Buhler-Miag (Canada) Ltd., 59 Curlew Drive, Don Mills, Ontario, Canada, Phone (416) 445-0910. See ads on pages 38 and 39.

**DEFRANCISCI MACHINE CORPORATION**, 46-45 Metropolitan Avenue, Ridgewood, NY 11385.

Full range of automatic lines of machinery for both short cuts and long goods including lasagna, from 500 to 5,000 lbs. Full range of high temperature drying equipment. Automatic long goods cutters, automatic sheet formers and noodle cutters. Drying rooms. Die washers, dry egg feeders, hydraulic tube cleaners and conveyors. Direct canning spreaders for filling spaghetti at a pre-determined quantity directly into cans. Fresh pasta presses for restaurants. Concentric extrusion dies. Twenty-five pounds per hour Laboratory Extruders. Pilot and production extruders for snack foods and cereals. See ad page 13.

(Continued on page 48)

THE MACARONI JOURNAL

You noodle-makers know everything about noodles, but Henningsen, the egg people, can tell you something new about eggs.



First, we can save you money on eggs you don't put in your egg noodles. We guarantee absolute uniformity, and tightly-controlled moisture content, which is something a hen can't do. Because we guarantee a minimum of 95% egg solids in our whole egg and egg yolk products, they have a built-in safety margin that keeps your egg noodles safely at or over the 5.5 per cent egg solid minimum content set by Federal regulations. So you don't have to pour in a lot of extra egg for good measure when you use Henningsen egg solids.

And we pasteurize Henningsen egg solids. We also guarantee that they are 100 per cent salmonella-negative, by test. We homogenize our egg solids for uniformity.

We can also tell you ways to save money on the eggs you put into your egg noodles by better methods of handling and blending and storing eggs in your plant. And we know all the ways. After all, we're the egg people.

One more thing. You get fast, on-time, dependable delivery of egg solids from Henningsen. And we have local representatives all over the country to help you out on egg problems.

After all this, we're afraid to suggest that you use your noodle and buy your egg solids from Henningsen, the egg people. But it is a good idea.

**Henningsen Foods, Inc.**

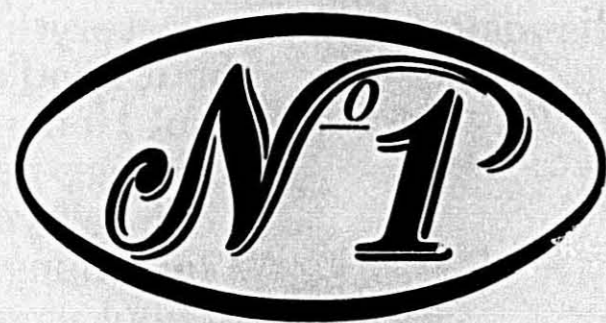
The egg people

2 Corporate Drive, White Plains, N.Y. (914) 694-1000



# Braibanti

is always



- ★ in assuring confidence to pasta factories all over the world
- ★ with the most advanced technology
- ★ because of experience acquired throughout the world

#### BRAIBANTI "HT" lines

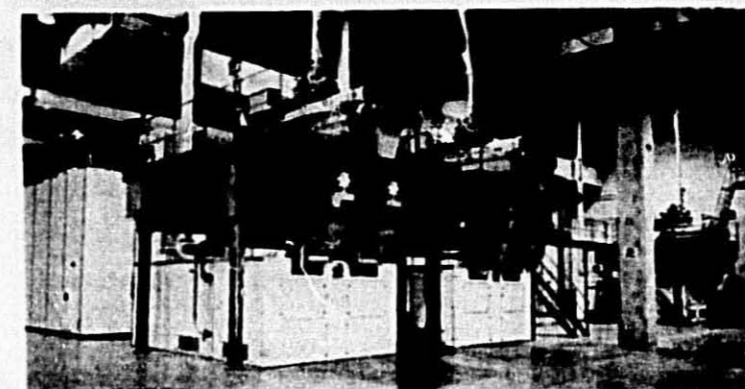
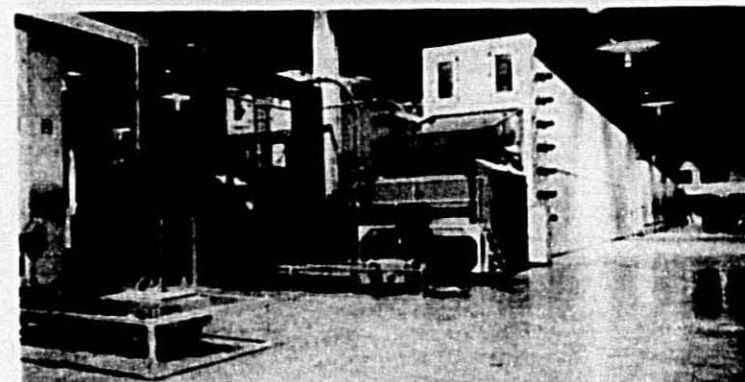
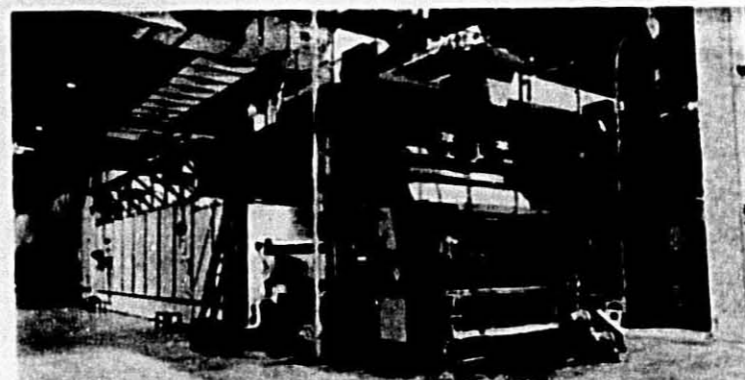
- 48 in ITALY
- 11 in FRANCE
- 10 in U.S.A.
- 8 in JAPAN
- 5 in PORTUGAL
- 5 in SPAIN
- 4 in GERMANY
- 4 in U.S.S.R.
- 3 in VENEZUELA
- 2 in POLAND
- 2 in SWITZERLAND
- 1 in AUSTRIA
- 1 in BOLIVIA
- 1 in CZECHOSLOVAKIA
- 1 in FINLAND
- 1 in GREAT BRITAIN
- 1 in GREECE
- 1 in INDIA
- 1 in IRAN
- 1 in HOLLAND
- 1 in RUMANIA
- 1 in TURKEY

When there is  
"HIGH" Temperature  
to be considered,  
the preference  
of the customers  
is



113 of which 53 are for long pasta,  
60 are for short pasta . . .

. . . besides innumerable lines operating at INTERMEDIATE TEMPERATURE



View of the  
new factory of  
PRINCE-LOWELL-U.S.A.  
with  
"HIGH TEMPERATURE"  
lines

# Braibanti

DOTT. INGG. M., G. BRAIBANTI & C. S. p. A. 20122 Milano- Largo Toscanini 1

## Braibanti corporation

• 60 E. 42nd St. - Suite 2040 • New York, NY 10165 • Phone (212) 682-6407/682-6408 • Telex 12-6797 BRANY •

## Buyers' Guide

(Continued from page 44)

**SALVATORE DI CECCO, RR#1,** Richmond Hill, Ontario, Canada, L4C 4X7, Tel. # (416) 773-4033. Exclusive sales representative for: Ricciarelli Firm: Automatic Packaging Machinery in cartons or cellophane bags for: Long and short goods macaroni; cereals, rice, dried vegetables, coffee, cocoa, nuts, dried fruits, spices, etc., Stamping Machines for Bologna-Style and Noodle pasta. Ricciarelli-Nicolai: Macaroni dies and die-cleaning equipment. Bassano Firm: Complete pasta lines equipment, Rolinox patented processing equipment. High temperature (+ 110°; + 212°F) drying process at drastic reduction of time and space with uniquely successful quality results. See ad on page 35.

**FOOD ENGINEERING CORPORATION,** 2765 Niagara Lane, Minneapolis, Minnesota 55441. Phone: (612) 559-5200. Manufacture, assemble and service a standard line of short goods pasta processing equipment, including Dryers, Coolers, Vibratory Conveyors, Bin Storage Systems, Continuous Belt Storage and accumulating systems and other related equipment. Also suppliers of Dryers, Accumulating Systems, Vibratory Conveyors and other processing machines and equipment for many other food industries. Mr. Ralph D. Burgess, Jr., President. Mr. Donald Lyman, Sales Technical Manager. See ad on page 31.

**MICRODRY CORP.,** 3111 Fostoria Way, San Ramon, California 94583. Multistage drying-pasteurizing using microwave techniques now proven with nearly all types of pasta. Enormous savings in energy, space and time. Also noodle cutters, die washers, belt storage systems.

## DIES

**D. MALDARI & SONS, INC.,** 557 Third Avenue, Brooklyn, N.Y. 11215. Phone: (212) 499-3555. Extrusion dies for pasta, cereals, snacks, pretzels, animal feed, R & D in non-related food fields. See ad on page 9.

**TANZ, INC.,** 6017 N. Milwaukee Avenue, Niles, Illinois 60648, (312) 647-9630. Manufacturer of extrusion dies for the food industry. See ad on page 21.

## PACKAGING EQUIPMENT

**AMACO, INCORPORATED,** 2601 West Peterson Avenue, Chicago, Illinois. Bag forming, filling and sealing equipment for long and short cut macaroni. Low, medium and high speed cartoning equipment for long cut spaghetti and other pasta goods.

**CLYBOURN MACHINE DIVISION,** a division of Paxall, Inc., 7515 North Linder Avenue, Skokie, Ill. 60077. Phone (312) 677-7800. Vertical cartoning equipment with volumetric or net weight filling. Horizontal cartoners for long macaroni products.

**WRIGHT MACHINERY DIVISION, REXHAM CORPORATION, P.O. Box 3811, Durham, North Carolina 27702.** Telephone: (919) 682-8161. Wright Machinery has designed a specialized line of packaging machinery for the macaroni/noodle industry. Form/Fill/Seal systems include the MON-O-BAG Volumetric, an automatic single tube system which permits high speed production when extreme weighing accuracy is not crucial; the MON-O-BAG II and MON-O-BAG III, net weighers employing the Electroflex scales; and the DU-O-BAG III, a net weigher that combines two MON-O-BAGs in one unit. Wright also manufactures the FA IN-LINE unit and the ROTARY NET WEIGHER, for packaging products in rigid containers at high speeds. Call or write Vice President-Sales, Martin D. Cicchelli, for a free technical bulletin. See ad on page 15.

## PACKAGING SUPPLIES

**COOLEY SALES, INC.,** Suite 112, 6025 Martway, Shawnee Mission, KS. 66202, (913) 362-6120, is a pack-

aging consulting organization offering many services to the pasta industry. Specializing mainly in flexible films such as polypropylenes, polyethylenes and their various laminations, we can offer up to six color flexographic print capabilities. Another service includes new film research and package development. We offer complete art department facilities for new graphic designs and/or changes. We have developed proven techniques for supplying your company with the lowest total cost in flexible packaging. The Cooley Sales, Inc. TOTAL PROGRAM analyses stretches your packaging dollar by analyzing your total packaging program. We then propose a program that includes mini-max ordering systems, a raw stock and finished goods inventory program and a system to virtually eliminate your out of stock costs. The companies that we represent to you are strategically located for excellent delivery and service. They are Packaging Products Corp., Mission Kansas, Packaging Industries, Inc., San Leandro, California, and Pan American Industries, St. Louis, Missouri. All are committed to aggressive customer service and have reputations for high standards of quality and dependability. Cooley Sales, Inc. and the converters that we represent will improve your packaging performance and contribute to your bottom line. See ad on page 31.

**DIAMOND PACKAGING PRODUCTS DIVISION,** Diamond International Corporation, 733 Third Avenue, New York, N.Y. 10017.

**DIAMOND INTERNATIONAL CORPORATION,** Diamond Packaging Products Division, 407 Charles Street, Middletown, Ohio 45042. (513) 422-2772. Creators and producers of multi-color labels, folding cartons, and Di-Na-Cal heat transfer labels. Sales offices in 19 principal cities offer nationwide package design service and marketing consultation. Six manufacturing plants are strategically located coast to coast.

**FAUST PACKAGING CORPORATION,** 145 Oval Drive, Central Islip, N.Y. 11722. Creators and manufacturers of multi-color cartons and promotional material for macaroni-noodle products and frozen foods.

**FOLD-PAK CORPORATION,** Van Buren Street, Newark, New York 14513. Eastern Sales Office: 110 Charlotte Place, Englewood Cliffs, New Jersey 07632. Fold-Pak Corporation specializes in the manufacturing of folding cartons for the macaroni and frozen food industry. Manufacturing Capabilities: Offset Printing from 2 to 6 colors, Rotogravure and Flexographic Printing, Die-Cutting, windowing machines and special finishes back up major printing equipment. Mechanical Packaging Systems: In-depth engineering analysis to help assure you of the most efficient packaging system in your plant. This is followed up by continuing service by our engineers. Packaging Design: Professional designers experienced in the pasta and related industries are available for your packaging needs. See inside front cover.

## FORTIFICATION

**VITAMINS, INC.,** 200 East Randolph Dr., Suite 7960, Chicago, Illinois 60601. Phone: (312) 861-0700. Manufacturers of enrichment ingredients used by macaroni manufacturers and flour millers. Also manufacturers of protein supplements including defatted wheat germ and milk proteins of high biological value. Sales representatives: East, Louis A. Viviano, Jr., P.O. Box 374, Plainfield, NJ 07061 (201) 754-9031; Midwest, Jack W. Rogers, Chicago, Illinois 60601; (312) 861-0700, West, William A. Wallace, 17752 Skypark Blvd., Suite 242, Irvine, California 92714 (714) 957-1961.

## Comment from Around the World

The German pasta industry has had flat sales, an intensified struggle for market share among the fifty manufacturers, and increasing imports of low quality Italian goods.

## SERVICE

**HOSKINS COMPANY,** P.O. Box F, Libertyville, IL 60048, Phone (312) 362-1031. TWX 910-684-3278. Answerback: HOSKINS LIBY. Sales representative for DeFrancisci Machine Corp. (DEMACO) in Canada and the Western United States. DEMACO manufactures pasta production lines. Sales representative for Asecco, manufacturer of finished goods conveying and storage systems. Consultant specializing in pasta-related problems. See ad on page 35.

**ROSSOTTI CONSULTANTS ASSOCIATES, INC.,** 158 Linwood Plaza, Fort Lee, New Jersey 07024; (201) 944-7972. Charles C. Rossotti, President; Jack E. Rossotti, Vice President. Professional Consultants in all phases of the Macaroni Industry, including Packaging, Sales Promotion, Marketing, Merchandising and buying and selling of macaroni Plants. See ad on inside back cover.

**WINSTON LABORATORIES, INC.,** 25 Mount Vernon Street, Ridgefield Park, N.J. 07660. Our laboratories, with 62 years of experience, continue to fulfill a vital need of every Pasta producer - Evaluation of product quality. Quality starts with the selection of the best raw materials free of incidental additives such as pesticide residues, pathogenic bacteria, and extraneous matter. Also a continual checking of your egg solid content of noodles and your enrichment concentrations are necessary to insure proper nutrition and compliance with Federal requirements. Have questions concerning nutritional labelling? Know what records must be maintained to substantiate your product claims. The Winston Laboratories Inc. - Specialists in the Chemistry & Bacteriology of Macaroni and Noodles. James and Marvin Winston, Directors. Prompt and Efficient Service since 1920. Phone: (201) 440-0022. See ad on page 7.

Germany is at a disadvantage with France and Italy in that she must import all of the durum she uses. Quali-

fied labor is in short supply and productivity has been falling.

In France thirty pasta plants have enjoyed steady business but they too complain about low quality imports.

The twenty firms in Turkey see future prospects as only fair. Demand for pasta has been slack and monetary matters have been a problem.

Two plants in Trinidad are busy with consumption on the increase. They use a blend of Canadian durum and two-thirds Spring Wheat and sell at the relatively high price of \$2.08 TT per pound - about 86¢ in U.S. funds.

## In Italy

One of the leading pasta producers in Italy says sales have been steady but future prospects are poor.

Of the 300 plants about 50 are large or medium size. They have problems of the price of durum wheat being kept artificially high by the Common Market; there is keen competition; the high cost of money is reducing investments to improve productivity.

In Italy about a quarter of the output is in boxes, three quarters in cellophane. Popular pack is 500 grams; selling price between 1000 and 1500 liras per kilogram.

## Nabisco Acquires Minority Stake in Gamesa of Mexico

Nabisco Brands, Inc., has acquired a minority interest in Gamesa, Mexico's leading producer of cookies, crackers and related products. The purchase price was \$45 million.

## In Brazil

According to World Food Report, published by Canadean of London, two large foreign companies have recently entered the pasta market in Brazil. One is BSN-Gervais Danone, the leading French food company, and the other is Suntory, Japan's leading distiller.

BSN-Gervais Danone has acquired Terra Branch Industria de Massa Fresca, which produces fresh pasta for the Brazilian market. The acquisition was done by BSN-Gervais Danone's Brazilian subsidiary, Laticinios Pocos de Caldas, the leading manufacturer of fresh dairy products in Brazil.

(Continued on page 50)

### CLASSIFIED ADVERTISING RATES

West Ad \$1.50 per line  
Minimum \$5.00

WANTED: Domestic used process, spreaders.  
For information write P.O. Box 336, Palatine,  
IL 60067.

SWISS MANUFACTURER of high quality macaroni, spaghetti and noodles, made from Canadian wheat and soy beans, is looking for an exclusive agent for the U.S. and Canada. European consumers use our products because they do not soften when canned with soup. Also we can minimize the percentage of carbohydrates and increase the percentage of protein. Reply to Box 701332, Munich 8000-70, West Germany.

### In Brazil

(Continued from page 49)

Terra Branca has a 30% share of the expanding Brazilian market for fresh pasta, with 1980 sales of \$8.4 million. Operating two plants, the company distributes fresh pasta the same way as fresh dairy products, "making the diversification ideal for Pocos de Caldas," said World Food Report.

Suntory, through a Brazilian food subsidiary, Vulcania, has launched two noodle products — instant spaghetti and instant Chinese noodles in meat, chicken, and tomato, and soy sauce flavors. The company has established a goal of selling 5 million packs by March 1982.

World Food Report said that Suntory bought Vulcania, a producer of spaghetti and macaroni products, in October 1978. Since then Vulcania's sales have increased by an average of 20% per year. The leader in the Brazilian pasta market is Adria, a subsidiary of Borden Inc. of the U.S., with a 20% market share. Another contender in the instant noodle market is Nissin Food Products of Japan, which claims to produce 100 million portion packs a year.

### Campbell's Brazilian Experience

After three years and an advertising campaign that soaked up \$2 million, Campbell Soup Co. is moving its Brazilian canned soup operation to a back burner. The company's production in Brazil, which was sharply curtailed last May following fiscal 1980 losses of \$1.2 million, is now limited to packaging soup for Brazil's

school lunch program. The Brazilian canned soup debacle is a first for Campbell, which has "never withdrawn from a market anywhere in the world," according to Philip Beach, managing director of its Brazilian subsidiary until mid-1980.

Campbell entered the Brazilian market in 1978, when it joined Brazilian-owned meat producer Swift-Armour S.A. Industria e Comercio to form a company called SOPA (Sociedade Produtora de Alimentos Ltd.). Campbell has a 65% interest in SOPA, with a capital investment of \$6 million. Before going into production, Campbell conducted a marketing effort that won two national awards and generated sales of 200,000 cases of canned soup in the first year of operations, says Milton Shayer, SOPA's present managing director.

### What Went Wrong

So what went wrong for Campbell in soup-conscious Brazil? In-depth but belated household interviews by a company-retained psychologist revealed that the Brazilian housewife felt she was not fulfilling her role as a homemaker if she served her family a soup she could not call her own.

Campbell's offerings—mostly vegetable and beef combinations packed in extra-large cans bearing a variant of the familiar red and white label—failed to catch on. Instead, Brazilian housewives seemed to prefer the dehydrated products of competitors such as Knorr and Maggi, which they could use as a soup starter but still add their own flair and ingredients. If one bought Campbell's soup, it was usually to put aside for an emergency, "like when she was late coming home from a tea party," says Shayer.

Shayer now regrets that market tests were limited to the temperate southern city of Curitiba, and not extended to subtropical areas of Brazil. "We might have seen right away that we needed more than one product," agrees Beach.

Campbell will decide shortly whether it will remain in Brazil. Shayer predicts. Its options include investing in other kinds of equipment to market items such as biscuits and cookies or using existing equipment to turn out "more typical" canned beans and sausage products.

It is also possible that Campbell might try to buy a Brazilian food products company and reintroduce a modified soup line as one of several items. "There has to be some option for a company like ours in Brazil," says Shayer. But, he adds: "It's a bad time to start fooling around with new products in Brazil. During bad times people concentrate on basics, which means rice and beans here."

### Do Not Give Up

But Campbell has not given up on the Brazilian market, says Richard J. Censits, vice-president for finance at the company's Camden (N.J.) headquarters. Censits points out that while Campbell is "not in a position to go forward on soup" in Brazil, "there is the possibility of marketing other products" there.

Campbell has also encountered difficulty farther south, in Argentina. Swift-Armour SA Argentina, a Campbell subsidiary, reported a \$6.1 million loss for the fiscal year ending in August, although nearly half the loss was due to currency translation adjustments.

### Pasta in Austria

A recent issue of Canadian's World Food Report included the following observation on a leading Austrian food company.

"Investment in the newest technology and concentration on specialty products are two major factors which have allowed Fritschmuehle Wels, the largest milling and pasta group in Austria, to maintain good performance in a virtually static pasta market. Per capita consumption of pasta in Austria has stood at roughly 3.3 kilograms per annum for years. Fritschmuehle's sales amount to about \$13.5 million, of which Diamant, a subsidiary making semi-processed items for the baking industry, contributes a small share.

"Fritschmuehle Wels has installed what it claims is the most modern-egg-processing plant in the Austrian pasta industry. Much of the company's output is in specialty pasta such as novelty shapes for children, extra long spaghetti and Indonesian pastas such as Bahmi Goreng.

"In 1979 total production of pasta in Austria stood at 19,800 tonnes, up 3.6% from the previous year, of which 95% was egg-based."

# ROSSOTTI

SPECIALIZED CONSULTANTS TO THE FOOD INDUSTRY  
SINCE 1898

With more than half a century of experience we believe we might be able to help if you have any problems in our areas of experience.

### PACKAGING

—we believe we have undoubtedly modernized more packaging than any other sources. We constantly continue our updating processes.

### PROMOTION

—we have not only conceived many promotional plans, but we have studied many that others have launched throughout the country. We believe we can help promote your products that you have by study, and recommend additional products that might be promoted in your trading areas.

### MARKETING

—rather than depending entirely on advertising dollars, we can show you modern marketing methods which will help capture more of your market. We have done it for others.

### MERCHANDISING

—We can point the way towards new profitable products and lay out merchandising methods for their development.

We have experience in these areas

Charles C. Rossotti, President

Jack E. Rossotti, Vice President

## ROSSOTTI CONSULTANTS ASSOCIATES, INC.

158 Linwood Plaza  
Fort Lee, New Jersey 07024  
Telephone (201) 944-7972  
Established in 1898



*We're dedicated toward enhancing your reputation for good taste. We're Multifoods*



**m** INTERNATIONAL  
**MULTIFOODS.**