

**THE  
MACARONI  
JOURNAL**

**Volume 59  
No. 4**

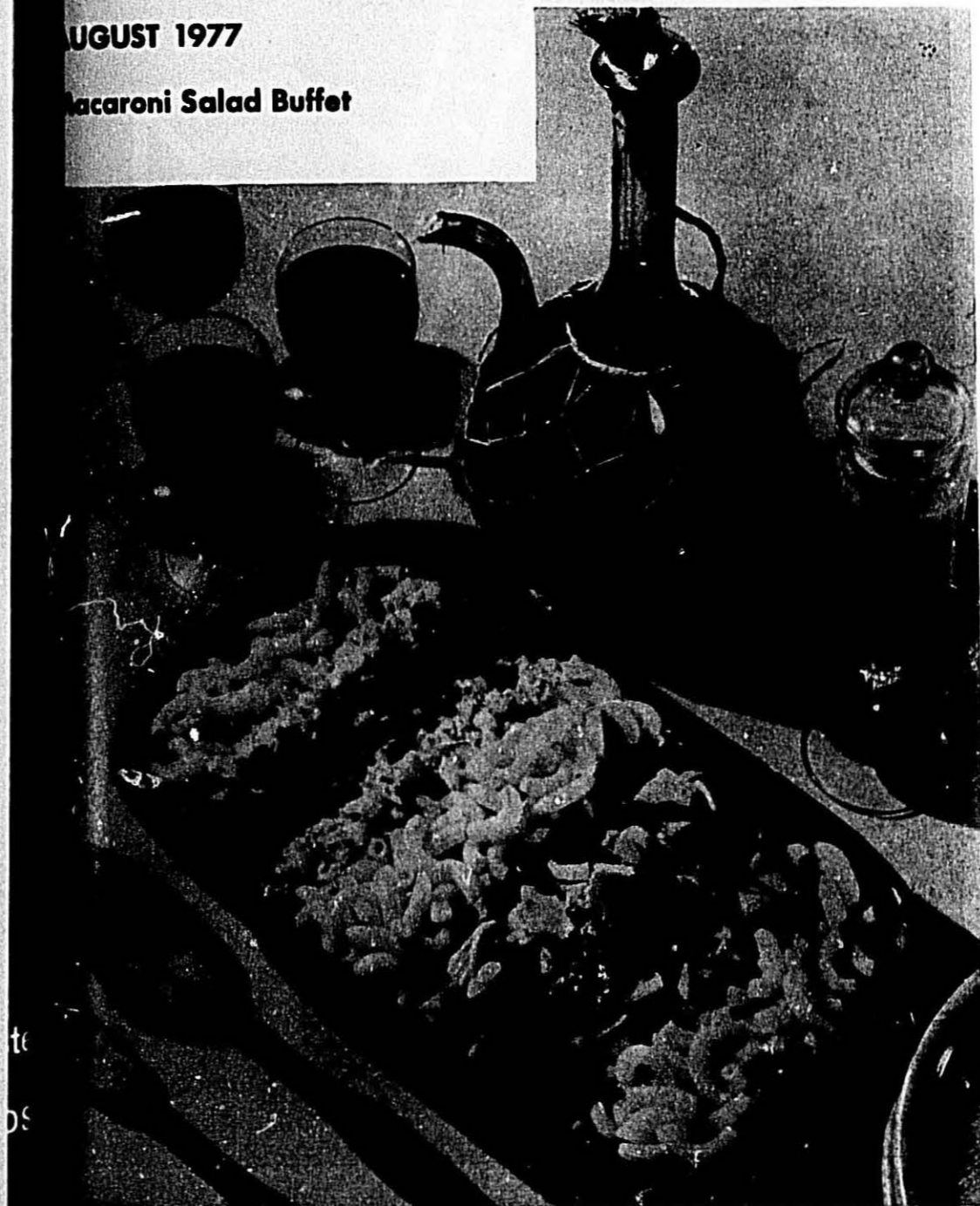
**August, 1977**



# *Macaroni Journal*

AUGUST 1977

Macaroni Salad Buffet





# package appeal is appetite appeal

Fibreboard builds appetite appeal into pasta packaging. In fact, we do this for the best Pasta manufacturers in the business. Our unique combination runs and understandings of Pasta packaging provide a money saving must for you.

Want more appetite appeal in your package? Call Fibreboard 201/568-7800

Fibreboard Corp., San Francisco, California. Eastern Carton Operations, 560 Sylvan Avenue, Englewood Cliffs, New Jersey 07632



## The Macaroni Journal

59  
No. 4  
August  
1977

Official publication of the National Macaroni Manufacturers Association  
1801 North Beaman Street, Suite 200, Chicago, Illinois 60642  
Telephone: (312) 646-1200  
Subscription: \$10.00 per year (in advance)  
Publisher: M. Gordon, Editor  
P.O. Box 107, Englewood Cliffs, N.J. 07632

### Officers

Pres. J. D. Williams  
1st V. Pres. V. V. V. V.  
2nd V. Pres. V. V. V. V.  
3rd V. Pres. F. R. F. R.  
Dist. Secretary R. M. G. G.  
Dist. Treasurer J. F. W. W.

### Directors

Vice  
Joseph P. Viviano  
Anthony H. Gioia  
Manuele Ronzoni, Jr.  
Nicholas A. Rossi  
Carter R. Thurston, Jr.  
Paul A. Vermeylen  
Gen. Secy.  
Joseph Sadi  
Lloyd E. Skinner  
Julius A. Villanue, Jr.  
Lawrence D. Wilburn

Vice  
Robert DeDomenico  
Gelo Guido  
Robert Wilburn

Gen. Secy.  
E. Ronald

Vice  
M. G. Andy Anderson

Gen. Secy.  
J. J. J. J.

Vice  
K. S. K. S.

Vice  
L. S. L. S.

Vice  
M. S. M. S.

Vice  
N. S. N. S.

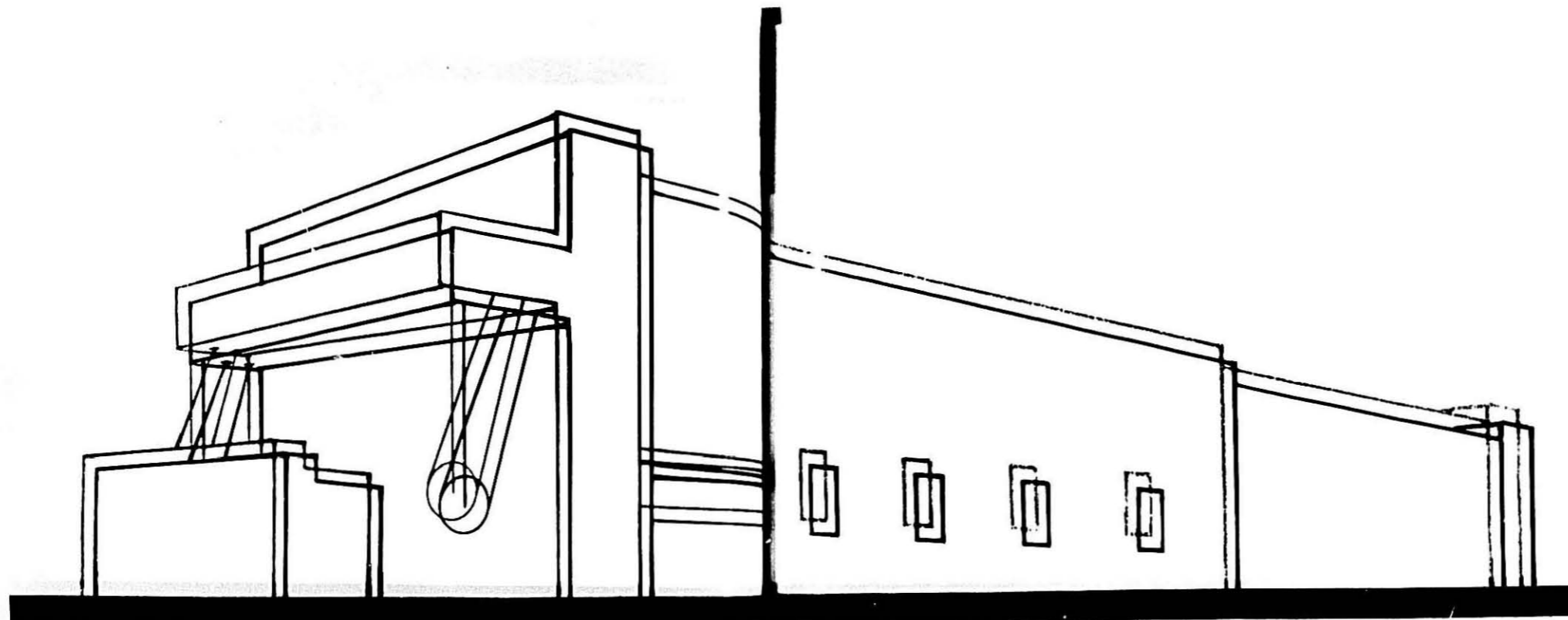
### In This Issue:

Editorial  
Special Report  
W. B. W. B.  
W. H. W. H.  
E. J. E. J.  
C. S. C. S.  
F. Y. F. Y.  
A. L. A. L.  
W. M. W. M.  
E. A. E. A.  
E. M. E. M.  
W. L. W. L.  
E. S. E. S.

### Ad Campaign in Britain

Macaroni manufacturers in Britain are launching a major advertising campaign to promote the product. The campaign will focus on the benefits of macaroni as a healthy and economical food. The manufacturers are working closely with the advertising industry to create a series of television and radio spots. The campaign is expected to run for several months. The manufacturers are confident that this campaign will increase the popularity of macaroni in the British market.





# The Demaco Dryer.

Higher temperatures, straight-through,  
uncomplicated mechanical operation  
assures you of:

- BETTER QUALITY
- BETTER COLOR
- BETTER COOKING RESULTS
- BETTER BACTERIA CONTROL

*Call or write for illustrated literature, or for immediate assistance,  
a factory trained field representative, without obligation.*

## DE FRANCISCI MACHINE CORPORATION

280 WALLABOUT ST., BROOKLYN, N.Y. 11206  
Western Rep: Hoskins Co., Box F, Libertyville, Illinois 60048  
Phone: 312-362-1031

Please note our new phone number  
**(212) 963-6000**



## Trends

Trends in the food industry—and trends within trends—were discussed recently by A. C. Nielsen executive vice president Donald R. McCurry. Among the highlights: Population growth for the 5 year period through 1980 is seen in only 4% overall, but 3 age groups will exceed the average—the “under-5-years” and the 65-and-over, each with a 5-year projected growth of 9%, and the 20-34 age group, with a 14% projection. Urban vs. rural for the period 1970-1990 will see the largest cities grow by only 6%—but medium and smaller cities by 27% and 21%, respectively, and rural areas by 17%. Thus, within the much-publicized “flat” population trend, there are subcurrents that represent marketing opportunities—including growth in young marrieds, infants, and senior citizens, and renewed vigor in rural areas.

## Dietary—and Implications

Consumption of overall calories in the U.S. has remained relatively constant since 1910, although the “mix” is somewhat different, notes Dr. Willis A. Gortner, executive officer of the American Institute of Nutrition. Sixty years ago, about 50% of protein came from grain and vegetable sources, and the other 50% from animal products; today, 70% of protein consumed is of the more expensive animal variety.

### Carbohydrates Down

Carbohydrate consumption has declined in the 60-year period—with starch, flour, and cereal grain products showing a particular decline (but with a marked rise in consumption of total and refined sugars). However, innovations in the processing and marketing of potatoes, along with new emphasis on high-fiber diets, could continue to reverse this particular downward trend. More fats are being consumed now than then—particularly the polyunsaturated types—reflecting an increase in consumption of edible oils, margarine, and shortening. Cholesterol intake 1910-1970 rose only 10%, with less emphasis on eggs, lard, and butter. Consumption of key vitamins and minerals has become better over the years—partially due to such practices as the enrichment of flour and cereals.

Unfortunately for today's consumer, the same intake of calories as his 1910

ancestor “doesn't look as good on him;” thanks to a more sedentary lifestyle and a taste for highly refined foods, he's more likely to be obese, and to suffer from artery, heart, or intestinal difficulties.

## Food For Thought

“The Way We Eat” is the title of a series of articles being published by the Wall Street Journal.

Reporter Joann Lublin notes: “The average American today consumes proportionately more meat, dairy products, eggs, salt and sugar than his turn of the century counterpart. And he eats less vegetables, fruits, and grain products.”

“This regimen, high in protein as well as fat and cholesterol, is controversial. It has, in the opinion of some authorities, increased our average height and lowered the age at which we reach sexual maturity. Others, however, are alarmed by the contrast between this enriched fare and the sedentary lives we lead these days. “Rather than eating well, most people are eating themselves to ill health,” states D. Mark Hegsted, professor of nutrition at Harvard University.” The booming diet-book business and the natural foods movement suggest these warnings are being heard. But how well they are being heeded is another matter.

### Suspect Diet

Our diet today is suspected to be a factor in such illnesses as heart disease, cancer, stroke, diabetes, hardening of the arteries, and cirrhosis



of the liver. Specifically, scientists believe that meats and dairy products which are high in both saturated fat and wax-like cholesterol, seem to lead to the buildup of fatty deposits in arteries. When these deposits block a heart artery, a heart attack occurs; a clogged artery to the brain causes stroke. Other researchers are trying to determine exactly how eating habits play a role in the nearly 400,000 annual cancer cases suspected to be related to nutrition. Fibers, the tough structural portion of vegetables that is often lost during processing and cooking, are thought to somehow dilute cancer-causing chemicals in the intestine while aiding elimination. But, sees one food researcher, “We don't even know what it is” in fibroid foods that seems to benefit the digestive system.

### Skimpy Diets

Skimpy diets, the bane of depression era Americans, still affect some of us. The academic failure of many poor school children, for instance, is partly blamed on a lack of nutritious food. Some say this malnutrition is severe enough to inflict brain damage, but other experts disagree.

Another popular theory holds that an inadequate supply of vitamins, minerals, and nutrients can wreak biochemical havoc in the minds of adults, causing everything from schizophrenia to headaches. The answer, proponents believe, is megavitamin therapy. But critics charge that the megavitamin advocates have failed to test scientifically the theory's merits.

Despite the concern with the state of the nation's eating habits, experts still can't agree on what kind of diet will permit healthy persons to stay that way, or what normal people should eat to function best at work and play.

### Spaghetti Diet

“You can eat spaghetti every night of the week and still lose an average of eight pounds a month,” says Philip V. Brennan, Jr. in the National Enquirer.

The diet, developed by Mrs. Chris Bruhn, lecturer in food science and technology at the University of California at Davis, said: “On the spaghetti diet you will eat well, lose fat, and retain muscle tissue. It offers you a daily treat that is an incentive

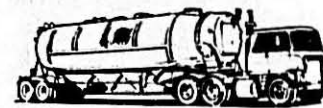
(Continued on page 8)

THE MACARONI JOURNAL

# semolina stackup

It's a situation that's hard to avoid when your product has to travel long distances from the mill. Even with today's highly-computerized movement of railroad cars around the country it's virtually impossible to prevent widely-varying delivery times and the resulting stackup of cars waiting to be unloaded.

Stacked up cars. Demurrage charges. Profit eaters. But if you're in Seaboard's Super Semolina Service Zone—the New York/New Jersey, Boston or New Orleans Metro Areas—you can get bulk truck-delivered freshly-milled No. 1 Semolina in a few short hours. And cut down those demurrage charges.

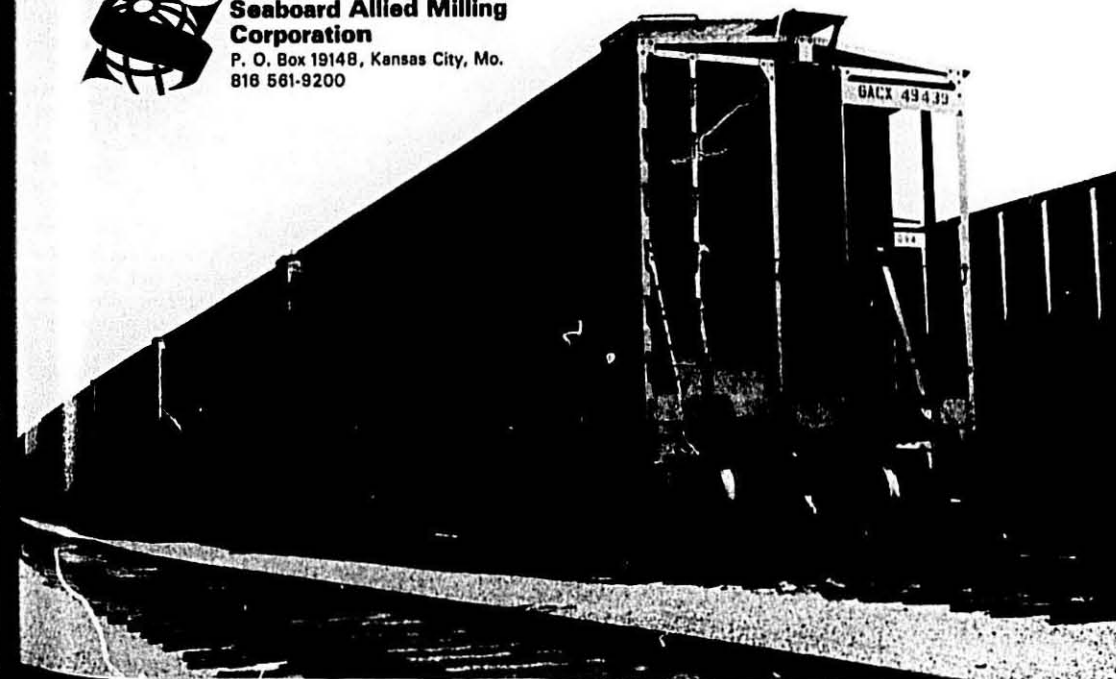


LET'S TALK ABOUT YOUR SEMOLINA REQUIREMENTS.  
Seaboard...the modern milling people.



**Seaboard Allied Milling Corporation**

P. O. Box 19148, Kansas City, Mo.  
816 561-9200





## Spaghetti Diet

to keep dieting. Measure what you eat, and you will have a well-balanced intake of only 1,400 calories."

Need variety? You can substitute different carbohydrates for spaghetti, and three ounces of meat plus one vegetable for the sauce. Substitute one cup of some other variety of macaroni for the spaghetti or substitute either two medium slices of French bread or two small dinner rolls. You can further modify the recipe by using in place of ground round either scallops, crab, shrimp, lobster, or chicken.

Here is the spaghetti diet with a day's sample menu:

**Breakfast (305 calories):** 1 poached egg; 1 slice toast; 1 tsp. butter or margarine; 6 oz. orange juice or 1 cup tomato juice; ½ glass low-fat milk or buttermilk; coffee or tea (artificial sweetener only permitted.)

**Lunch (390 calories):** 3 oz. broiled round steak or fish, fowl, or cheese; 1½ cups marinated green bean salad; 8 oz. low-fat milk, 1 apple, tea or coffee.

**Dinner (739 calories):** 1 cup spaghetti with sauce; 1 cup asparagus spears with 1 tsp. butter or margarine; 1 stick celery; ½ glass low-fat milk; 1½ cups fresh strawberries topped with 1 tsp. sugar and ½ cup low-fat milk; coffee or tea.

Fruits you can substitute for fruits in the sample diet: 1 medium peach; 1 small pear; 1 small orange; 1 large tangerine; ¼ cup cranberry or cranapple juice, sweetened; ½ small grapefruit; ½ cup grapefruit juice; ¼ cup sweetened gelatin dessert.

Vegetables you can substitute for vegetables in the sample diet: ½ cup serving of: beets, carrots, corn, green peas, pumpkins, turnips, winter squash, cauliflower, celery, asparagus, cucumber, eggplant, spinach, lettuce, string beans, summer squash, peppers, tomatoes, radishes, watercress, bamboo shoots.

Foods allowed as desired: bouillon; clear broth (without fat); dietetic catsup; unsweetened gelatin; pickles (dill, unsweetened or sour); mustard; soy sauce; spices; sugar-free soft drinks; sugar substitutes; vinegar; Worcestershire sauce; coffee and tea (artificial sweetener only).



**Spaghetti Sauce Recipe for Spaghetti Diet**  
Classic Spaghetti Sauce for four (with 1 cup spaghetti, 425 calories per person).

2 chopped onions  
1 lb. ground beef  
16 oz. can tomatoes  
8 oz. tomato sauce  
¼ cup grated Parmesan cheese  
2 cloves garlic, crushed  
1 tsp. oregano  
½ tsp. sweet basil  
salt and pepper

Saute onions while browning ground beef. Drain fat. Add canned tomatoes, tomato sauce, and spices. Simmer 15-30 minutes until thick. Serve over spaghetti, topped with parmesan cheese.

### Five Star Spaghetti House

Attention to detail has helped elevate Tony's of St. Louis to move up from a modest spaghetti house to a top rated restaurant still featuring Italian cuisine, reports David P. Garino in the Wall Street Journal.

Tony's has received the highest Mobil Travel Guide rating—five stars. Only nine U.S. restaurants hold that rating. "If there's such a thing as a 24-carat restaurant, it's Tony's," says Robert Balzer, restaurant and wine editor for Holiday magazine. "I think it's impossible to get a bad meal there." Proprietor and owner is Vince Bommarito. He exhorts waiters to keep notebooks so they will be able to discuss food choices with customers intelligently. They describe dishes and wines and tell how they complement one another.

Attention like this is what has moved Tony's to the top.

"How to Cook Macaroni", training filmstrip, \$1 from the National Macaroni Institute.

## Diet Recommendations

A Senate Select Committee on Nutrition and Human Needs proposed dietary goals which, if adopted voluntarily by the consuming public, would radically change the eating and food buying habits of most Americans.

Basically, they call for returning to 19th and early 20th century emphasis on fruit, vegetables and grain products as diet mainstays, and sharp downgrading of fat and sugar intake.

The committee, headed by Sen. George McGovern (D., S.D.), found that these two dietary elements alone now comprise at least 60 per cent of total caloric intake, up 20 per cent since the early 1900s.

The committee, citing testimony by doctors and nutritionists it had consulted, concluded that "these and other changes in the diet amount to a wave of malnutrition—of both over and under consumption—that may be as profoundly damaging to the nation's health as the widespread contagious diseases of the early part of the century."

### Six Dietary Goals

After marshalling the medical and allied evidence, the Senate committee recommended six basic "dietary goals" to the public, saying that while genetic and other individual differences means the guidelines may not be applicable to all, there is "substantial evidence indicating that they will be generally beneficial." The goals:

—Increase carbohydrate consumption to account for 55-60 per cent of the energy (caloric) intake.

—Reduce over-all fat consumption from about 40 per cent to 30 per cent of energy intake.

—Reduce saturated fat consumption to account for about 10 per cent of energy intake, and balance with poly-unsaturated fats, which should account for about 10 per cent of energy intake each.

—Reduce cholesterol consumption to about 300 mg. a day.

—Reduce sugar consumption by almost 40 per cent (to account for about 15 per cent of energy intake).

—Reduce salt consumption to about 3 grams a day.

### Recommended Changes

The study translated the goals into recommended changes in food selection.

(Continued on page 10)



# Pearls of Pasta

For a rare adornment of pasta flour, we recommend ADM's golden blends of Durum flour and Semolina. Clean. Radiant. Pasta-perfect flour. Precious consistency.

Enhance your treasure with ADM pasta flour. Your customers will think you're a gem!



## ADM MILLING CO.

4660 West 108th Street, Shawnee Mission, Kansas 66211  
Phone (813) 381-7400



## Diet Recommendations

(Continued from page 8)

tion and preparation, which is where the payoff would be for cooperating health conscious consumers and the supermarkets which serve them.

—Increase consumption of fruits, vegetables and whole grains.

—Decrease consumption of meat and increase consumption of poultry and fish.

—Decrease consumption of high-fat food and partly substitute polyunsaturated fat for saturated fat.

—Substitute nonfat milk for whole milk.

—Decrease consumption of butterfat, eggs and other high cholesterol sources.

—Decrease consumption of sugar and foods high in sugar content.

—Decrease consumption of salt and foods high in salt content.

### General Reminders

Also provided by the Senate researchers were what are called "general reminders" for family diet planners. For example: milk, meat, fish, cheese and eggs are high in sodium; vegetables, bread and cereals have moderate amounts of sodium, which vary greatly among vegetables; fruits and fats are low in sodium or have only trace amounts; highly salted snack foods should be avoided; halve the amount of salt, soy sauce and monosodium glutamate used in cooking and at the table; do not add salt to food that has been salted in freezing and canning; try flavorings other than those listed (in the study) under "Foods to avoid;" do not use a salt substitute unless a physician has recommended it; when eating out or buying prepared canned or frozen food, try to avoid food with unlisted salt content.

### Foods to Avoid

The "foods to avoid" list drafted by the committee is extensive. Called very high in sodium are: Salted or smoked meat, including bacon, bologna, corned beef, ham, luncheon meat, sausage and salt pork; processed cheese; cheese spreads; roquefort, camembert and other strong cheese.

Also: Peanut butter (unless low-sodium dietetic); vegetables salted or packed in brine, including pickles, sauerkraut, etc.; pretzels, salted nuts,

and olives; flavorings, including commercial bouillon; catsup, celery, onion or garlic salt; chili sauce; meat extracts, sauces or tenderizers, unless low-sodium dietetic; prepared mustard; relish; salt substitutes, and cooking wine.

The purpose of the study "is to point out that the eating patterns of this century represent as critical a public health concern as any now before us," McGovern said. "We must acknowledge and recognize that the public is confused about what to eat to maximize health." He proceeded to characterize what followed in the report as practical guides for the individual consumer, linked with national dietary goals for the country as a whole.

The study, scheduled for wide distribution and publicity, marshals evidence relating diet to a variety of human ills. Overconsumption of fat, as well as of cholesterol, sugar, salt and alcohol, is tied to such leading causes of death as heart disease, cancer, cerebrovascular disease, diabetes, arteriosclerosis and cirrhosis of the liver.

### Diet Trends

The study suggests current dietary trends also may be leading to malnutrition through undernourishment, since fats and sugar, now prominent in the diet, are relatively low in vitamins and minerals.

Sugar takes a pounding from the committee. Its sharp, increased use, it is suggested, is traceable "in large part to the desire of food manufacturers to create unique food products with a competitive edge." Cited as an example was the recent introduction by Nabisco of an Oreo cookie with double the amount of sugar filling. Also cited was testimony that the addition of sugar to cereal in 1948 had been the direct cause of recovery of slumping cereal sales.

"Since then," the report said, "the varieties of sweetened cereals have grown dramatically. The profusion of varieties of cereals, soft drinks and other products represent efforts to protect market shares."

Why condemn sugar? The Senate committee said the most immediate problem is the danger in displacing complex carbohydrates, high in micronutrients, with sugar (essentially an energy source offering little other

nutritive value). It added that sugar has been "implicated in tooth decay" and "there is some evidence . . . connecting sugar with diabetes." Turning to soft drink sales, the committee said reduction in such consumption was a solid way to cut sugar consumption. For many people, it was suggested, total elimination of soft drinks from the diet would bring at least half the recommended reduction in sugar consumption.

### Scientist Challenges McGovern Nutrition Report

According to Dr. Fredrick J. Stare, former chairman of nutrition at Harvard University's School of Public Health, the McGovern Senate Committee report on nutrition—while embodying some laudatory goals—is essentially a political report prepared by a non-professional staff, and is not accurate.

Dr. Stare made these comments on the 6 goals of the McGovern report:

No. 1—Increase carbohydrate consumption to account for 55-60% of our total calories (currently 45-50%). "A reasonable and attainable goal."

No. 2—Reduce overall fat consumption from 40 to 30%. "Desirable but unrealistic. Few people will consume a diet with less than 32-33% of total calories from fat."

No. 3—Reduce saturated fat in the diet to 10% of total calories, and increase the unsaturated fats. "Desirable and realistic."

No. 4—Reduce cholesterol consumption to about 300 milligrams/day. "Desirable and realistic."

No. 5—Reduce sugar consumption by about 40% to account for about 15% of total energy intake. "Also. Sugar, used in the singular, generally means sucrose, the white granulated table sugar. Sucrose now makes up only 12-13% of the total calories of adults. Thus, it is currently used at the level recommended by the McGovern Committee."

No. 6—Reduce salt consumption by about 50-85%. "I personally agree, but quite unrealistic for most Americans."

### High Cancer Rate

Noting that the cancer largely responsible for the "high cancer rate" is cancer of the lungs from smoking, and also that animal experiments with

(Continued on page 12)



It takes highly skilled, experienced personnel to engrave teflonized extrusion die inserts to the critical tolerances required for producing pasta products of perfect size and weight.

For example, a Sea Shell that is too heavy means bad drying and

checking; too light means packaging problems.

It is a Maldari practice to train young apprentices (photo) to assure the continuance of these special skills so that Maldari dies will continue to produce perfect products, not only now, but also in future years.



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

## D. MALDARI & SONS, INC.

557 Third Ave., Brooklyn, N.Y. 11215

Phone: (212) 499-3555



### Dr. Stare's Comments

Continued from page 10)

astronomical doses of a suspected cancer-causing agent have no relation to reality when the same substance appears in a minute quantity in the diet, Dr. Stare cited what he considers a particular area of weakness in the report: "The report is weak in dealing with the most important nutritional problem in our country—eating and drinking (alcoholic beverages) too much, and not using up enough of these extra calories in muscular activity. Result—obesity. There is no mention in the report of calories from alcoholic beverages."

### Why Bread Prices Don't Drop

Bread prices the past three years have not reflected lower raw commodity prices, because multiregional wholesale bakers are paying higher non-ingredient costs and restoring their profits to 1971 levels, according to a report by the White House Council on Wages and Price Stability.

The council said supermarket chain owned bakeries had increased their share of the bread market 15 per cent from 1967 to 1972, the last years on which census data are available.

"The value of all shipments of bakery products increased from \$5.1 billion in 1967 to \$6.2 billion in 1972, or 20.6 per cent, while grocery store bakeries increased their shipments 39.3 per cent, from \$468 million to \$652 million."

### Commodity Prices Decline

A decline in raw commodity prices the past three years has not been reflected in bread prices.

"The reason," the council said, "is that multiregional wholesale bakers have experienced offsetting increases in noningredient costs and have restored profits per unit to 1971 levels."

The large, multiregional bakeries increased their profitability sharply from 1973 to 1975, but profits seemed to stabilize in 1976.

### Return Not Excessive

While the margin in bread baking seems to be enough to attract investment, "the rate of return on investment was not excessive in 1976 relative to the manufacturing average," the council said.

The report concluded a study of the bread industry that had been going on since April 1975.

### Other findings:

- Chain markets raised their share of bakery shipments 15 per cent between 1967 and 1972. This growth was significant in that it was accompanied by a net expansion of bakery capacity by those stores, and their bakery prices fell relative to those of wholesale bakers.

- Between the first quarter of 1973 and the first quarter of 1975, the retail price of bread increased 49 per cent, more than twice the rate of increase of the Consumer Price Index for all items during the same period. The sharp increase in bread prices was largely a response to the more than doubling of wheat prices in 1973-74. Since the first quarter of 1975, the retail price of bread has fallen 5.9 per cent, while the Consumer Price Index increased 12 per cent.

- Since the third quarter of 1974, wholesale bread prices have kept rising despite significant drops in the prices of basic farm commodities used in bread production. In part, this reflects rising costs of labor, fuel and power, and of packaging since 1974; in part, it reflects increases in wholesale bakers' profit margins.

- Large, multiregional wholesale bakers had significantly higher unit costs of production and distribution in 1975 than did small wholesale bakers, because their nonlabor costs rose more sharply in 1974-75 than did those of other wholesale bakers. This difference was especially pronounced in packaging costs.

- Prices of large, multiregional bakers were significantly higher in 1975 than those of other wholesale bakers. Between 1973 and 1975, the average net wholesale price of bread rose 32.2 per cent for multiregional wholesale bakers, compared with increases of 28.7 and 24 per cent for cooperative and independent wholesale bakers, respectively.

- Bread profits of all wholesale bakers reached a five-year high in 1975, when the after-tax rate of return on the book value of capital invested in bread production reached 13.1 per cent for wholesale bakers. This compares with an average return of 11.1 per cent for food and drink manufacturers and 9.9 per cent for all manufacturing. For 1976, average returns on the book value of invested capital for baking companies, food and drink manufacturers and all man-

ufacturing were 10.7, 12, and 11 per cent, respectively.

- Most major bread markets are relatively concentrated, with the top four brands of bread typically accounting for 59-60 per cent of all consumer bread purchases. The trend of concentration in local areas is not generally known because of the lack of adequate data. However, the top four bakery companies raised their share of national bakery shipments 6 percentage points between 1963 and 1972, the latest year for which census data are available.

### ABA Reaction

The overall tone of the study—that retail bread prices just might be a little higher than they should—was especially disappointing to the American Bakers Association, which, to its credit, worked diligently to educate and provide data to the Council staff from the start. "Our problem," said Robert J. Wager, A.B.A. president, "is that this is the third crew we have had to try to educate because of turnover in the agency. Just when you get one group with a glimmer of understanding, another group comes in."

Over a two-year period, the Council failed to gain, or express, a true understanding of the highly competitive baking industry. Even worse, the study ignores historical price-cost data which provide overwhelming evidence that profiteering in baking at the expense of consumers has been, and is, virtually impossible.

### Will Hamburger Prices Climb?

People who study meat prices say hamburger will start costing more soon.

Hamburger sales normally account for more than one-third of the annual volume at supermarket meat counters and "we think consumers would react to anything over \$1 a pound for hamburger," says Michael H. H. a spokesman for the Jewel Food Stores unit of Jewel Cos. He notes that supermarkets noticed a pronounced decline in hamburger demand during the 1973 beef boycotts when prices approached \$1 a pound.

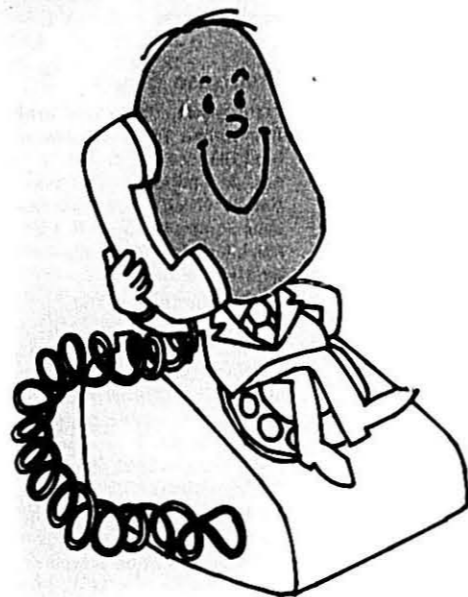
Hamburger is even more of a mainstay in the nation's approximately \$15 billion-a-year fast-food industry.

The U.S. appetite for ground beef appears to be growing. About 40%

(Continued on page 14)

THE MACARONI JOURNAL

# If you want results, call the durum people.



You can measure the results when you start with the best. The best durum wheat is raised on the prairies of North Dakota, and the North Dakota Mill uses only the best durum wheat for our durum flours. If you want the best results, start with Durakota No. 1 Semolina, Perfecto Durum Granular or Excello Fancy Durum Patent Flour. Call us today — you'll get the results you want. The best.

the durum people

**NDM**

NORTH DAKOTA MILL  
Grand Forks, North Dakota 58201  
Phone (701) 772-4841



## Hamburger Prices

(Continued from page 12)

of the beef U.S. consumers ate last year was ground, compared with 20% in 1970. The share could be as much as 60% by 1980, partly because ground beef is a staple for fast, convenient meals, which appeals to the increasing number of housewives who have jobs outside their homes.

Ground-beef supplies are dwindling. The number of mother cows in the U.S., which are a main source of hamburger because their meat is leaner and cheaper than that from younger, grain-fed animals, dropped 7.6% by last Jan. 1 to 52.4 million-head from 56.7 million two years earlier. The total number of U.S. cattle dropped 6.8%, to 122.9 million in the same period.

## Beef Industry Advertising

Cattlemen are getting set to vote on a controversial checkoff program designed to raise money for beef promotion, advertising and research.

If the referendum is approved, the program could raise an estimated \$30 million to \$40 million annually to fund the program.

Both its backers and its critics are calling for a heavy turnout.

"The industry's future is in your hands. . . . Vote 'yes' for a more profitable future in the beef industry," the American National Cattlemen's Assn. says.

The checkoff program and the promotion and research will "solve our problems and strengthen our markets," a beef development task force campaign flyer added.

## Critics

Critics, including officials of the National Farmers Union, said they're campaigning against the checkoff program because millions of dollars spent on beef advertising and promotion might provide little help for cattle producers.

"The records show that consumers tend to spend a steady percentage of their disposable income for red meat. This means that economic conditions like per capita income and employment have more to do with red meat sales than any promotion programs," said Robert Mullins, an NFU staff aide.

"Advertising isn't really going to change the amount people eat. And

if it increases sales of beef, it would only be at the expense of other farm products like pork," Mullins added.

## Referendum

Registration for the referendum will continue through June 16. Anyone who owned even a single beef or dairy cow in 1976 can register. Voting will take place from July 5 through July 15.

If the plan is adopted, all cattle sold would be subject to a deduction of three-tenths of 1 per cent off the selling price. Any producer who objected to the contribution could request a refund, although critics like the Farmers Union complain the refund procedures are complicated and unlikely to be used by many small producers.

If the checkoff program is adopted, the producer money would be spent through a 68-member Beef Board whose members would be nominated by cattle industry organizations and appointed by the agriculture secretary.

## Slaughter Lags

Cow slaughtering so far this year is lagging the year-earlier rate by 8% at federally inspected packing plants. Omaha livestock terminal prices of slaughter cows climbed more than six cents a pound to their highs for the year in April from their lows in January. Beef Belt economists say part of the rise was due to normal calving patterns which tend to hold cows off the market—and enhance their prices—during the spring. Cow prices have slipped about three cents a pound to a current range of 26 cents to 26.5 cents a pound as ranchers started weaning more calves and shipping the cows to market.

## Food For Today

Food For Today is the title of a new text book written by Helen Kowtaluk, former associate food editor of Better Homes & Gardens Magazine, and Alice Orphanos Kopan, former supervisor of home economics, Chicago Public Schools. The book is published by Chas. A. Bennett Co. of Peoria, Illinois 61614.

This comprehensive work covers food habits, food safety, health, nutrition, meal patterns, daily food guide, weight control and meeting special food needs. Then there is a section

on the consumer in the marketplace, buying guides to food, how to store food, kitchen appliances and equipment, sanitation and safety, and kitchen ecology.

## Preparation

In the chapters on preparation there is one on dairy foods, others on breads and cereals, fruits and vegetables, meat-poultry-fish and eggs, preserving food at home, serving and eating food. There are other chapters on the art of creative cooking, food around the world, regional foods in the United States, outdoor cooking careers in food and nutrition and how to get and keep a job. Appendices include data on the metric system, recommended dietary allowances, nutrition label, anatomy of a food label, important sources of nutrients, customary abbreviations and equivalents.

## On Pasta

On pasta, there is information on how to buy it and how to prepare it as well as background as to how it is used in Italy.

## Progresso Sauce

Progresso, "America's first family of fine Italian foods," is featuring Seafood Sauces in full-color magazine ads in regional editions of July Family Circle, Better Homes & Gardens and Ladies' Home Journal, reaching 9,000,000 readers in the Midwest and East.

With the theme "Make it Progresso, or make it yourself," the ad gives readers two different recipes for Spaghetti with Seafood Sauce. The first recipe—"Make it Progresso"—involves two simple steps. The second recipe—"make it yourself"—involves seven complicated steps and numerous ingredients.

Progresso's magazine campaign will also be featuring recipe ads for soups and Bread Crumbs as well as Seafood Sauces during the year. In addition, Progresso will be running saturation schedules on television, radio and in newspapers in their major marketing areas. These efforts will be further supplemented by consumer and trade programs.

Progresso spokesmen credit their magazine advertising not only with supporting their broadcast campaign but with playing a major role in the development of new marketing areas.

## Fast Foods Cut Super Sales

The fact that the supermarket share of consumer spending has declined 5 per cent in the past five years, while the portion going for fast food and convenience food continues to rise, indicates supermarket operators may be entrenched in promotion methods that no longer work, and may no longer know their marketplace. So said Howard Green and David Rogers, president and vice president, respectively, of Howard L. Green & Associates, during a recent FMI's advertising conference. The two were speaking on maintaining the supermarket's share of the food dollar—alternative marketing strategies to the fast food challenge.

Rogers, who presented statistics compiled by the Bureau of Labor Statistics on how food expenditures were allocated between food eaten at home and food eaten out during the years 1960-61 and 1972-74, reported that three demographic variables have had the greatest impact on the way the food dollar is spent—family income, family size and age of family members.

According to the BLS figures, families earning less than \$3,000 a year were spending 15% of their food dollar on food consumed away from home in 1960 and 17% during the years 1972-74. For families at the other end of the spectrum, those earning \$15,000 a year or more in 1960 spent 31% of their dollar at eat-out establishments. By 1972 those earning \$15,000-19,999 were spending 30% of the food dollar away from home; those earning \$20,000-24,999 were spending 32% and those earning over \$25,000 were spending 37%.

## Family Size

Family size also affected the way the food dollar was spent. Single households spent 38% of the food dollar on food eaten away from home in 1960, and 40% by 1972. Families of five or more spent 16% of the dollar on food consumed away from home in 1960 and 20 per cent by 1972.

Young people, according to the BLS statistics, tend to spend more of the food dollar at eat-out establishments, with those under 25 spending 26 per cent of the total in 1960, and 36 per cent by 1972. There also is a greater portion spent on food consumed outside the home by the middle-aged (35-64) category—21 per cent in 1960,

up to 25 per cent by 1972. This category represents the "empty nester" family—the couple whose children are grown, and who are at the peak of their earning potential," Rogers said.

These figures indicate that "large families are the strength of the supermarkets," he said. But he noted that because the birth rate is declining, large families may not exist in a few years.

Green said demographic trends—more working women, declining birth rate, an improving economy—point to an even greater increase in market share for fast food, convenience food and specialty food outlets in the future. It is estimated that by 1980, convenience stores alone will be taking 8 per cent of the food dollar.

## Grocers' Response

The problem, Green said, is the way supermarkets are responding to the fast food and convenience food competition. Traditional reactions—such as discounting, price wars, mergers, market exits or expanding into non-food lines—not only no longer work, but in some cases are actually counterproductive, he said. For instance, reducing store services to cut costs may only drive customers away. One of the prime reasons people are going to convenience stores is because they're convenient," Green said.

He contended markets are going to have to make a commitment to offering better prepared food; putting departments such as delicatessens up front "instead of buried against the back wall," and generally rethinking some old promotion ideas. "I think we've carried the price, price, price thing so far that we're wearing blinders to the other elements of a store's image that can attract people," he said.

## Problem of Price

The price feature of supermarkets doesn't explain why people are still going to fast food and convenience store operations, Rogers noted. "And price and slow front ends in the supermarkets will only increase customers going to other food outlets."

Rogers questioned whether traditional supermarket promotions any longer have a place in today's market. "McDonald's doesn't give away stone-ware or encyclopedias or coupons—they advertise their operations as convenient and exciting places to be."

## Fast-Foods Slow Up On Breakfast

Supermarkets are concerned that people are eating more meals away from home and that fast-food chains are taking the play.

Fast-food chains, to make better use of their facilities, have been promoting breakfasts heavily in recent months, but now they are taking a beating. Higher commodity prices of orange juice, bacon and coffee are making them take another look at their prices and promotions, and they are also making customers look harder at their tabs.

In the New York market, McDonald's, Burger King and Chock-Full-O-Nuts, Corporation have raised coffee prices by 20 percent.

The obvious reason for promoting breakfast was to optimize hours of operation but with labor, energy costs and now commodity prices pounding the breakfast items, the fast-food chains will have to watch both their volume and profit margins.

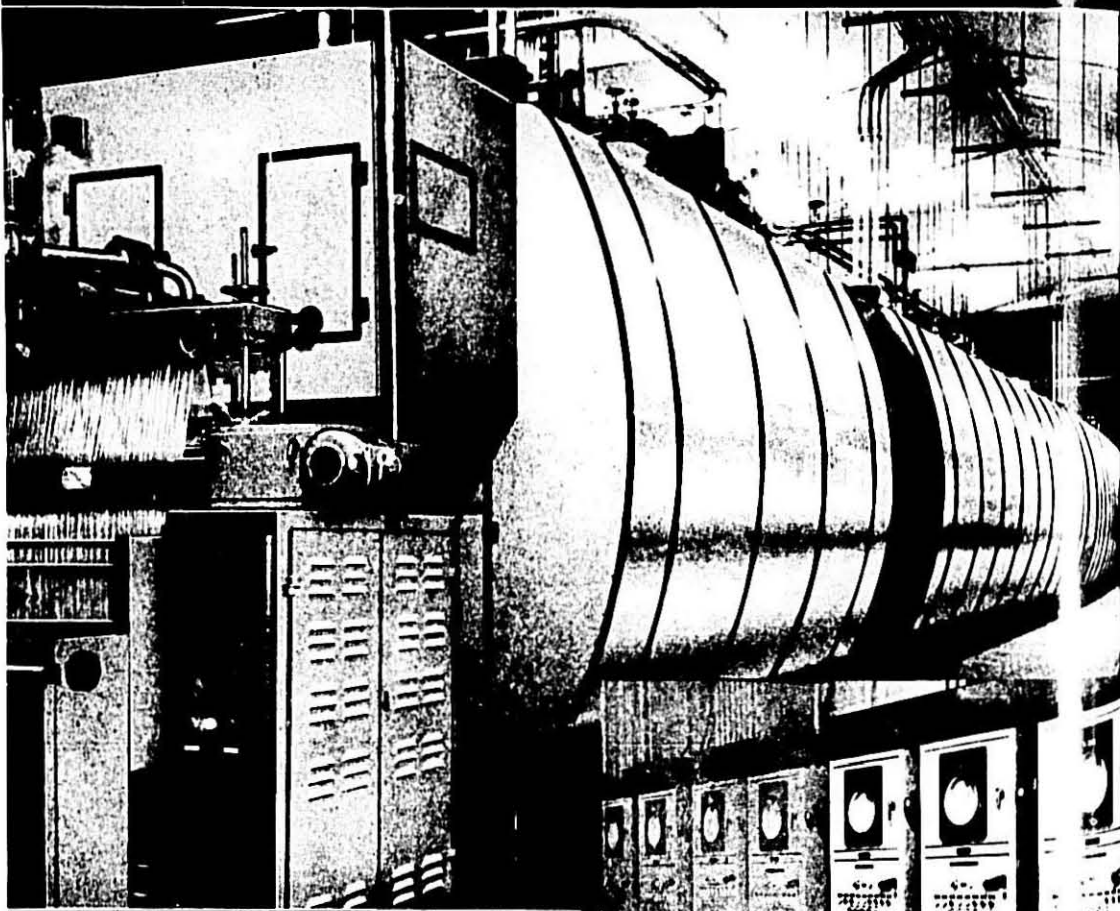
One franchise operator commented: "Breakfasts aren't costing as much as dinners yet, but with the higher prices, people are certainly changing their eating habits."

## Facing Fast Food

Americans now eat about one-third of their meals outside the home, and the proportion could grow to one-half by the mid-1980s if the current trend continues. That has alarmed the nation's supermarkets, which fear they will lose more and more business to the fast-food chains, says Nation's Restaurant News. The publication observes that supermarkets are meeting the competition head-on by expanding their selections of frozen and packaged foods and increasing the amount of space they put aside for delicatessens, takeout food and bakeries. Their promotional literature emphasizes the bargains of eating at home—hamburgers, for example, at less than half the price of those at a fast-food chain. Banquet Foods Corp. is spending \$4 million on an "eat in and bank it" advertising campaign. So far, consumers have not been especially responsive to the appeals to frugality, but the recent increases in wholesale food prices could change that.

Feed a friend a spaghetti dinner

**RELIABLE.**



**NEW BUHLER LONG GOODS DRYERS**  
are built to give performance you can rely on!

Operation of entire dryer line  
shown above is controlled  
from one location

**Completely re-designed**

with features that make them

**THE MOST RELIABLE  
IN THE INDUSTRY!**

**New Conveying system never stops.**

Product moves slowly and continuously from spreader to accumulator. No starts and stops. Simplified design means greater reliability, since there is less wear than conventional start and go dryers.

**Product is consistently excellent**

Because drying action is always steady. You can count on the product to come out with appealing color and texture. Uniform and constant every time. Ideal for handling with automatic weighing, transporting and packing machines.

**Climate zones are  
positively separated.**

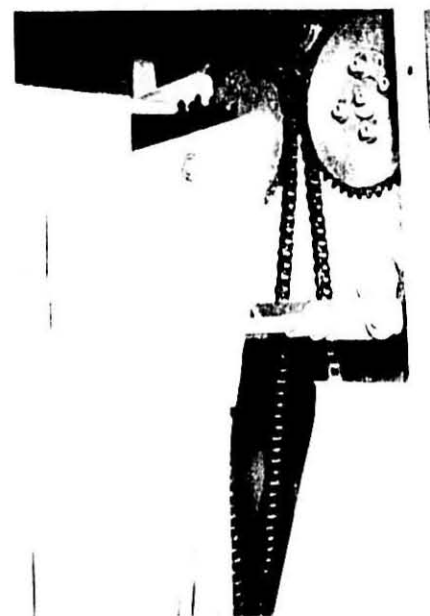
Extremely tight enclosure with Buhler patented humidity control allows high temperature, low humidity drying environment.

**Capacity range 500-4,000 lbs/hr.**

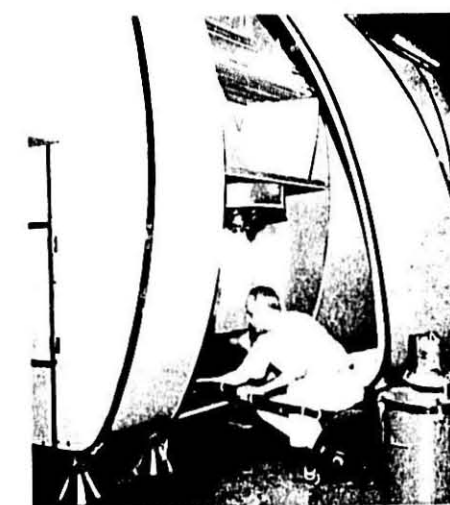
Standard stick lengths: 60 or 80 inches.

**Ask for details**

To learn the reliability of Buhler dryers, visit our research equipment. Call us or write: ER-MIAG INC., P.O. Box 9497, Minneapolis, MN 55440. (612) 545-1401. East Coast Office: 580 Sylvan Ave., Englewood Cliffs, NJ 07632. (201) 871-0010. ER-MIAG (Canada) LTD., Don Mills, Ontario. (416) 445-6910.



Each spaghetti strand travels exactly the same path.



Super sanitary design, easy maintenance.

Complete Macaroni Plants by

**BUHLER-MIAG**



## CORRUGATED AND SOLID FIBRE BOXES

Carter B. Morris, Manager, Marketing Services  
Container Corporation of America

As we have seen, when it comes to products, markets, and even people, we can take nothing for granted except change. Measurements for predictability have increased, but so has "future shock"—coping with the rapid changes in society.

Wouldn't it be nice if we could count on something remaining the same? Or would it?

For instance, my topic of discussion corrugated packaging. Can we really think of it as the good old brown box, exactly as it was conceived?

No, even the brown box must adapt to changing needs, indeed, it even has a role in shaping these changes.

But partly because it is so widely accepted, corrugated is often accused of being a static material. Fair or not, that's its image.

In preparation for this assembly, we surveyed a cross-section of corrugated users. One of the questions we asked them was what they considered to be the most important corrugated advance of the last five years. A disheartening number replied "nothing."

This is our fault for not doing a better job of communicating, because corrugated is making very real progress. We can't compete for drama with some more flamboyant containers such as plastic beverage bottles or folding cartons printed in 14 colors. But in the way of gradual, steady, practical improvements, we're competing very strongly.

### Nature of Material

It's important to any discussion of corrugated that we first understand the basic nature of the material.

Number One, unlike metal or plastic producers, paper mills have little freedom of product composition. They can mix hard or soft woods, and they're making increasing use of chemical additives. I might point out parenthetically here that while this is causing some short-term problems, it promises many long-term benefits. Still, despite all the chemical tinkering, a tree essentially remains a tree.

Second, corrugated thickness can't be infinitely controlled, as can metal

or plastic. Corrugating equipment is relatively inflexible. So while it's possible to offer a reasonable range of choice—for instance, A, B or C flute, single or double wall—for plants to produce a precise thickness of, say, 0.49 inches, isn't possible.

Third, other materials can be more readily converted into unusual shapes. Corrugated designers today can work wonders of configuration from the same flat sandwich—some of it solid fibre, but mostly two plies of liner-board with lumpy flutes between.

Finally, and most compelling, despite our customers' complaints, corrugated is low in cost. It's such a workhorse at such a bargain price, that there isn't great incentive to change it significantly. To gild it would be to cancel out many of the reasons for its popularity. And any packaging material used for 95% of consumer goods shipped in the U.S. must be doing something right.

But no product, however widely accepted, is without flaws. Nor can it be allowed to stagnate. Its producers must respond positively to changing customer needs. So I'll take this opportunity to discuss the six main problems indicated by our survey and what the industry can do to help solve them.

I'll also report to you on what seems to us at CCA to be the most important developments coming up.

### Variety of Problems

Our survey showed that corrugated users have a wide variety of problems. Many are specialized and peculiar to one particular firm. But a few were mentioned so often that they are clearly paramount. These include: rising box prices; inconsistent compliance to packaging specifications; failure in stacking strength or due pact; failure in stacking strength due to moisture; too many box sizes; and equipment downtime.

The rising cost of board and boxes is unquestionably the major worry to the biggest segment of our respondents. Almost all of them said they expect to spend more for the same number of corrugated boxes by



Carter B. Morris

the end of this year compared with last.

The percentage of anticipated increase, however, varies widely, from a low of 1% more to one poor soul who claims he's been socked with 25%. He packages expensive automotive parts, and it's quite probable that he's upgraded his boxes to reduce the impact damage he says had been severe for his company.

The average expected 1976 increase for the group as a whole was 5.7%. A handful of packagers reported that they expect to maintain the same corrugated outlay as last year. These were all food producers except for one mail order house.

Only one fortunate buyer hopes to reduce his corrugated cost this year—by 8%. His firm manufactures furniture and floor coverings and was the only one in our sample that uses no other packaging material than what he describes as "carrier designed corrugated boxes." Who his suppliers are, of course, we don't know. But in a period of rapidly rising costs some enterprising designer has devised for him a less costly construction that will save a tidy sum, namely \$540,000.

Actually the price of converted boxes has risen much less than have converters' operating costs, with liner-board up \$20 a ton and chemicals, labor and freight rates all up as much as 15% just in the past year. Fibre Box Assn. figures for the industry as a whole, as of August 28, showed that '76 box prices had risen only an average of 2.3%, although an overall aver-

(Continued on page 20)

## WHY YOU MUST PUT YOUR BEST FACE FORWARD

These are basic facts of selling in today's market:

1. Shoppers have a food budget. It may be rigid—it may be flexible but, by-and-large, food purchases are contained within decided amounts.
2. Aside from predetermined items on a list, the vast majority of purchases are made on impulse. If a shopper buys Item A, Item B is out for that trip.
3. Packages designed to catch the eye and sell have a far greater appeal and are selected more frequently than outmoded "winners". But styles change, competition comes from even dissimilar products. Some dominant appeals of yesterday are "old hat" today.

While the Rossotti Method is distinctive—we and several other producers can print excellent cartons and labels. But **designing** selling packages that are individually yours is a unique talent. Rossotti has created and produced resultful packages for a great many of the leading organizations throughout the country. IN ADDITION we offer a marketing service that is uncopied to date. Under the guidance of our Marketing Director, who has attained a background of international accomplishments . . . we will analyze your products as related to your market and make specific recommendations that promise greater profits from your sales.

There is no cost . . . all that is needed is an appointment for a preliminary discussion.

### ROSSOTTI CONSULTANTS ASSOCIATES, INC.

2083 Center Avenue

Fort Lee, New Jersey 07024

Telephone (201) 944-7972

Established in 1898

CHARLES C. ROSSOTTI, President

JACK E. ROSSOTTI, Vice President



## Boxes

(Continued from page 18)

age hike of 5 to 7% is likely by early '77.

That box prices haven't risen more sharply is mainly due to the high-speed equipment and accessories that most big boxmakers are installing. It's a mixed blessing. Start-up has meant more board waste, a serious drain on profits. But more effective jam detectors, off-bearers, automatic splicers, electronic monitors and other modern converting machines are alleviating this and returning our proportion of waste to more acceptable levels.

### More Efficient Handling

More efficient box handling is another promising means of controlling costs. Our box plant at Carol Stream, Illinois, is fully conveyerized, as is Owens-Illinois' new one near St. Louis, and some others. There will be more, providing, of course, that boxmakers can come up with the money. They must be able to justify such capital expenditures based on expected returns on investment.

It's been lamented so many times that I will moan only briefly here. The paper industry must find more capitalization and improve its ROI. Our cost/price squeeze is acute. The industry's bill for pollution controls from 1960 to 1975 was \$3 billion. By 1984, we'll spend another \$7.7 billion. At the present time, one-third of our capital spending is for pollution control—non-productive assets. Of course, this reduces the amount of new capacity investment, but we continue to spend for production improvements and necessary additions to capacity. Further, there's a worldwide tightening in the supply of long-fibered softwoods, and the lumber companies can afford to pay more for it than we can.

Considering all these factors, there's little likelihood in the foreseeable future that box prices will decline. Nor will freight rates. So the obvious answer for cost-conscious box users is to get more for their money in both regards.

### Freight Rates

Freight rates are rising faster than box prices. This year's rate of increase is 6% for truckers, 7% for rails, more than twice that of corrugated boxes.

And carriers are paying increasing attention to density as the prime basis for establishing rates. It behooves every corrugated user to make a regular re-evaluation of his shipping containers to make sure he's getting the most product possible into a given space.

Shipping classifications aren't carved in stone. Many packagers don't realize that the docket of the national classification board of the motor carrier industry, regulatory arm of the truckers, changes almost every month. A classification can frequently be revised downward by only minor changes in the product and/or package, or even just the product description.

As a rule, though, the best opportunity to cut freight costs lies in increased density of the pack. We can expect greater use of wraparound shippers and other product-conforming containers, not necessarily square. There are still problems with wraparounds in shipping glass without partitions. Only a few test permits have been issued, by the truckers only, and breakage rates aren't yet in line. But partition-less is coming, and it should save a lot of board and a lot of cube.

The tighter wraparound cases of tomorrow should interlock more securely on pallets. This is a plus. Countering it on the minus side is the fact that their close conformity to product configuration will probably mean a wider range of case sizes. Hence more difficulty in determining the best pallet pattern.

### Computerized Programs

That's where new computerized programs come in. Ours is called CAPE. The letters stand for Computer Assisted Packaging Evaluation, and that's exactly what it does. O-I has a similar program called Compak. These programs can't work miracles, but they do save endless hours of manual calculation. More important, they help to insure that the optimum pattern isn't overlooked by a packaging engineer groggy from figuring.

I'll only cover the highlights here. Much simplified, CAPE accepts all the data relevant to palletizing—such as shipper dimensions, preferred type of deck pattern, allowable underhang and overhang, stacking height, the

specs and locations of divider and flaps—along with the selected pallet size. It then rates all possible patterns within the pre-set parameters. You reduce or even eliminate voids, which means less shifting and possible damage, along with better utilization of cube.

That's only the palletizing side of the CAPE program. It can do much more, as I'll explain shortly.

### Specification Problems

The inconsistency of compliance to packaging specifications tied with stacking failure as the No. 2 problem. Nearly half of our respondents complained—some vehemently—that their board purchases, specified exactly the same, vary from supplier to supplier. This is most troublesome to big-volume users of high-speed casing equipment.

In defense of our industry, I must insist that most board shipments today are closer to spec than they were five years ago, thanks to improved flexo folder/glueers, new rotary die-cutters, electronic wrap controls and several other significant manufacturing advances. Also to the voluntary standards jointly agreed to by members of FBA and PMMI, which are continually being expanded and distributed to members of both groups via special bulletins.

But I must also concede that our customers have a point when they complain about inconsistency, for this reason.

Much research is being done with various chemical additives for strengthening the furnish. They interact with the wood fibers in different ways. Thus two samples of 26# test with the same 26# medium may both technically meet the same specs, yet have noticeably different properties in creasing, scoring, line color, ink receptivity, etc. The problem will be resolved as the better-performing additives prove themselves.

As paperboard packaging magazine commented earlier this year, the situation is similar to that which occurred when Fourdrinier was replacing cylinder mill operations 25 years ago. It will gradually stabilize.

Meanwhile, an important step is being taken that should enable packagers to obtain board weights closer to their specific needs.

A technical committee of the Fibre Box Assn., after 3½ years of work, has submitted its proposal for changes in the Railroads' Rule 41 and the Truckers' Item 222 involving corrugated.

The proposal would change five critical factors:

1. Bursting strength requirements
2. Minimum weight of facings
3. Box dimensions
4. Maximum gross weight of the box and contents
5. Test procedures to determine bursting strength

If accepted by the carriers—a procedure that will surely take several years even if all goes well—it will be the first revision of this magnitude since 1945. And no one needs to be reminded of how many changes have taken place in our distribution system in the last 31 years.

Instead of the present five standard grades of single wall combined board, having a burst strength of 125, 175, 200, 275 and 350# respectively, there would be six grades: 125, 160, 200, 250, 320 and 370#. Thus the gap between the two lightest grades would be narrowed appreciably while an additional grade would be added at the top.

For double wall combined board, there would be seven grades instead of five. The present 200, 275, 350, 500 and 600# would become 225, 275, 320, 400, 440, 520 and 575#. Again the gaps would be narrowed and made more uniform. The smaller intervals between grades would permit most boxes to certify closer to the specific demands of the products they contain.

This is a product actually needing 220# test single wall now must go into a 275# box. Under the new proposal it would certify at 250#. The new high grade in single wall would permit some packagers to cut back from the double wall box they now must use.

There are many other potential benefits, not the least of which is that the new grades convert easily to even metrics, without decimals. And they're projected to save at least 4% of the fiber now being used for corrugated packaging in the U.S.

Back to our user survey.

### Product Damage

Product damage from stacking strength failure or impact tied with inconsistency or compliance to packaging specifications in seriousness among the users we surveyed. Many of the points I've already covered can help to reduce crushing. We're also getting excellent results from new boxmaking techniques.

One is selective lamination, or use of inner packing. By reinforcing the sidewalls of an RSC with either die-cut pieces of corrugated or laminated liners, we maximize performance. The glue line acts as a bridge to reduce liner crushing. There's a synergistic effect that gives more strength than the same weight or even greater weight of non-laminated liners. And selective lamination often permits users to reduce their main box walls from double to single at significantly lower cost.

Another technique pioneered by International Paper, with which the industry is experimenting widely, is upgrading the medium rather than the outer liner. The standard 26# medium can be beefed up to 30#, 33#, 36#, 40# or laminated 26#/26#, and even higher grades that we at CCA call Duo-Arch.

The cost advantage is clear. When you increase lineboard strength from 42# to 69#, you hike your cost about 20%. If you retain the 42# liner, but increase the medium from 26# to 36#, you pay only about 6% more in material. Performance isn't equivalent for all products, but for many it's perfectly acceptable.

For strengthening corrugated, there's research and development underway on a number of fronts. For instance, the Canadian firm of Consolidated-Bathurst has recently introduced a new board reinforced with Polypropylene Scrim. It's called CB-TUFF. There will probably be U.S. licensees, although none to date so far as we know. This is no packaging material for the bargain-minded. It costs about 50% more than regular corrugated of equivalent weight. However, its exceptional resistance to moisture, puncture and tearing should be attractive for heavy-duty specialized applications, especially for multi-trip containers. And nearly everyone in this audience can attest that un-

der-packaging is almost always false economy.

### Moisture Problems

Not surprisingly, corrugated failure from moisture or humidity was rated as the No. 4 problem by the users we surveyed. Corrugated is a form of paper. Paper is weakened by moisture. That's a physical fact.

It's now possible to give corrugated virtually 100% moisture resistance with enough plastic coating or impregnation. For instance, International's Surf-Corr is said to contain no fewer than nine different resins and polymers.

The drawbacks to such boards, of course, are their relatively high cost and their poor recyclability. They're extremely valuable for certain specialized applications, but we consider it more economical and logical to aim for better control of moisture-laden environments than simply to pile on more coatings or impregnations.

Stretch and shrink film wraps for pallet loads are reducing much of the exposure to moisture that corrugated boxes once encountered.

Some products will always cause a serious moisture problem for corrugated, but most packagers can cope with moisture if they select the right grade of board in the first place, keep a close eye on storage conditions for the box blanks and rotate their inventories properly.

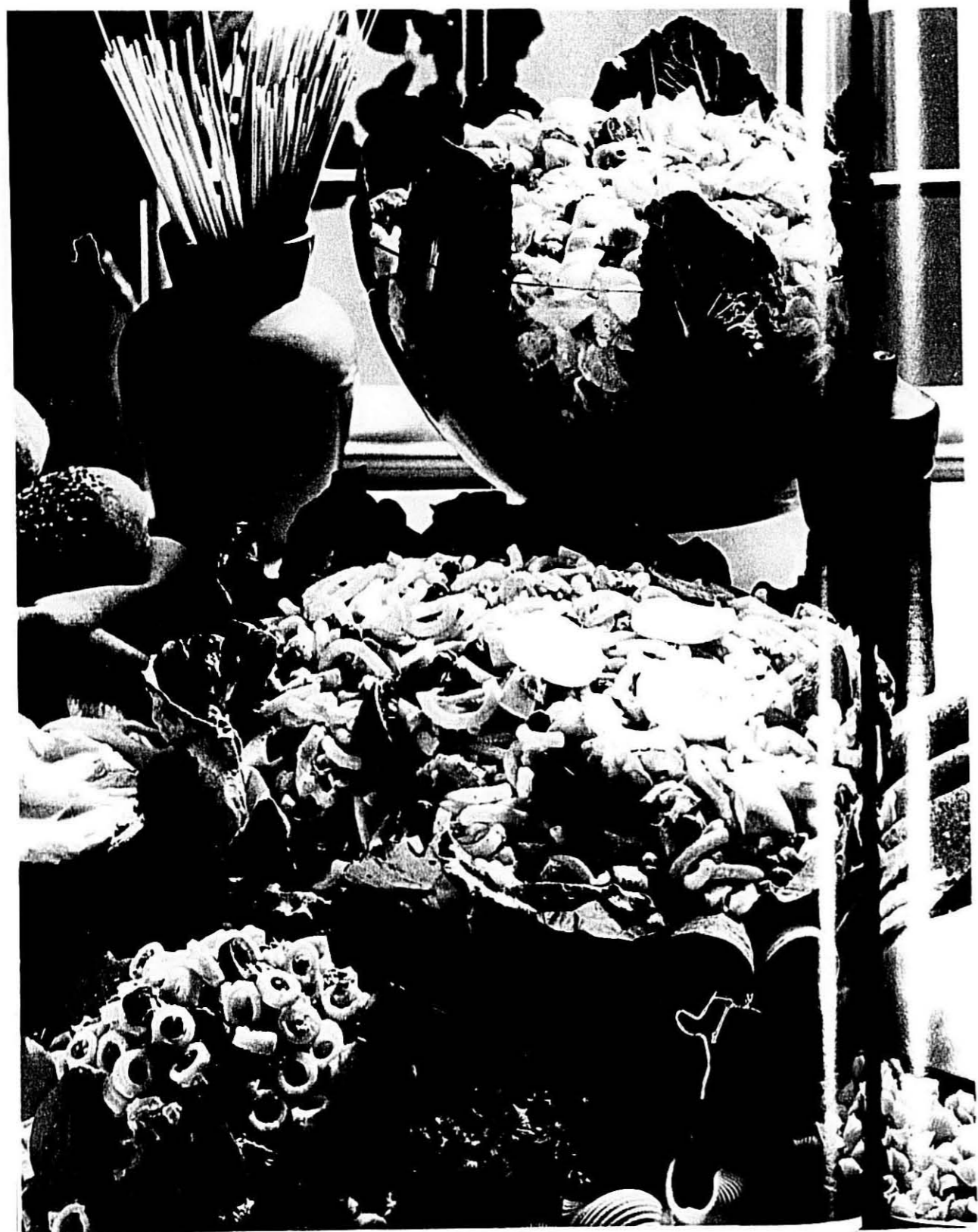
Research is given interesting new insights into stacking performance of corrugated cases under end-use conditions. Our latest effort will be disclosed in detail at the technical Association of the Pulp and Paper Industry Container Conference in Cincinnati. It's a study of humidity effects on the moisture content of palletized corrugated boxes, under actual warehouse conditions. All previous work of this type has been either on single boxes or on pallet loads that were in equilibrium with the surrounding atmosphere.

In real life, of course, the atmosphere cycles. Warehouse humidity goes up and down. Exposed panels pick up quite a bit of moisture while the shielded panels pick up little or none.

Our findings show that mean ambient relative humidity should be used in our compression formulas rather

(Continued on page 24)





# Pasta Masters.



Super cool summer salads start with pasta made by Peavey experts from our fine Semolina and Durum flours.

At Peavey, there's a long-standing tradition of searching out ways to make our products perform a little better for you. In our miniature macaroni press and dryer operation, for example, our own pasta experts actually make test batches of pasta so they can precisely analyze its color, nutritional content, and shape retention. We've found this is a proven way to constantly improve our products. We're also very willing to work with our customers on their new product ideas, using our miniature equipment. Naturally, we're very discreet about keeping their secrets.

Another reason why Peavey's such a popular name with pasta manufacturers is the consistently high quality of our King Midas Semolina and Durum flour. We start with Durum wheat from the North Country. Then mill it in our modern, well equipped facilities that were designed specifically for producing the best Semolina and Durum flour available today.

Our pasta masters even develop recipes utilizing pasta in mouth-watering new ways, as in the cool summer salads shown here. Recipes are available to you without obligation. Just drop us a line and we'll rush them to you, plus answers to any questions you may have.

Peavey Technology. Continuously probing the future to get better results for you.

## Peavey

Industrial Foods Group

Peavey

Sales Offices



## Boxes

(Continued from page 21)

than the extremes. For design purposes, a good approximation of this can be obtained from national weather service records for the areas where the boxes will be warehoused.

We've now incorporated this weather data into the CAPE computer program mentioned earlier. It's used as one of the criteria for determining box specs and pallet patterns.

When the data suggest it, more moisture resistance can be obtained at a reasonable cost from such combinations as our new 36# wet-strength medium combined with laminated liners, which can increase strength without upgrading basis weight. They give superior column stacking strength and flat crush, and the finished board is also less susceptible to in-plant caliper loss. Board combined with water-resistant adhesive has even better wet-strength capabilities.

The use of a flute is also a consideration when used with a high-strength medium—36# or better—to increase stacking strength, as much as 12% greater than C flute.

### Too Many Sizes

An excess of box sizes is still a problem for many of the respondents in our survey. Too many box sizes hike costs and cause inventory problems. Yet trying to counter them by switching to stock boxes is generally not very satisfactory. Damage goes up, shipping density goes down, and any financial advantage goes out the window.

CCA is working on a box consolidation program that we hope to have commercial within the year. First we'll run the customer's entire product line through the CAPE computer; next, analyze the product and the primary package—carton, can or bottle; then, analyze means of resizing and rearrangement, so that the number of box sizes can be reduced.

In addition, we will recommend the most efficient pallet pattern for the shipping container. This would also be an excellent time to evaluate such variable-depth systems as the new ones from Pemco and Hayssen.

Once the number of sizes is down to a bare minimum, we'll design generic graphics; ship the box blanks pre-printed with all common graphic

elements; and supply a high-quality Flexo Imprinter with which the customer will individualize his boxes on-line.

We think the plan has excellent potential for cutting our customers' overall costs without any sacrifice of product protection or printing quality.

We fully expect that this imprinter will be capable of producing as good quality as can pressmen and equipment. Including the distribution code, if, indeed, we or any of our illustrious competitors can print the code to scan acceptably.

As with the universal product code for retail packages, the concept for cases sounded alluring in theory but the realities less so. Since contrast between the printed code and the box substrate is all-important, it's unfortunate that this additional problem had to be introduced at a time when substrate color is varying widely because of recycling research, pollution control and other efforts more vital to the national interest.

The distribution code will come in time, no doubt. It's to be hoped, however, that reason will prevail and that neither we nor our customers will have it rammed down our throats as an unrealistic and unattainable standard. In fact, many interim systems are now working quite successfully.

Like everything else, one can look on change as a problem or as an opportunity.

The imminent advent of the distribution code and of metrication—while sure to cause some difficulties for almost all of us—both offer an unparalleled opportunity for packagers to improve their corrugated case graphics over-all.

### Litho Labels

For packagers needing a boost in retail sales appeal, it will be a good time to consider a switch to pre-printed, full-color, lithographed labels rather than direct printing. Many box-makers now have this capability.

If full-color labels break the budget, there's a new middleground; Bobst has just introduced a direct-to-board letterpress printer for corrugated whose printing quality lies about halfway between litho labels and standard flexo printing. The cost should also fall roughly between the two.

And don't forget the fine graphic capabilities of the corrotone and mezzotint processes. Or the fact that ex-

cellent two, three, four or more color printing capabilities are available at many corrugated plants.

It's our opinion, though, that most box users should take the chance to achieve less clutter rather than more. For boxes that are viewed only on the truck and in the warehouse, it's pointless to "sell the stockboy."

Concentrate instead on crisp, easy-to-read graphics that are electronically scannable. Be sure the placement of elements is correct. Devise more effective symbolism for warehouse personnel who may be only semi-literate.

In an important recent breakthrough, pioneered by mead, elastomeric photopolymer printing plates teamed with ultraviolet-cured inks are giving finer detail along with improved abrasion resistance and gloss—all vital to warehouse efficiency whether eye-read or electronically scanned. We'll see a lot more of this, since UV printing is also essentially pollution-free.

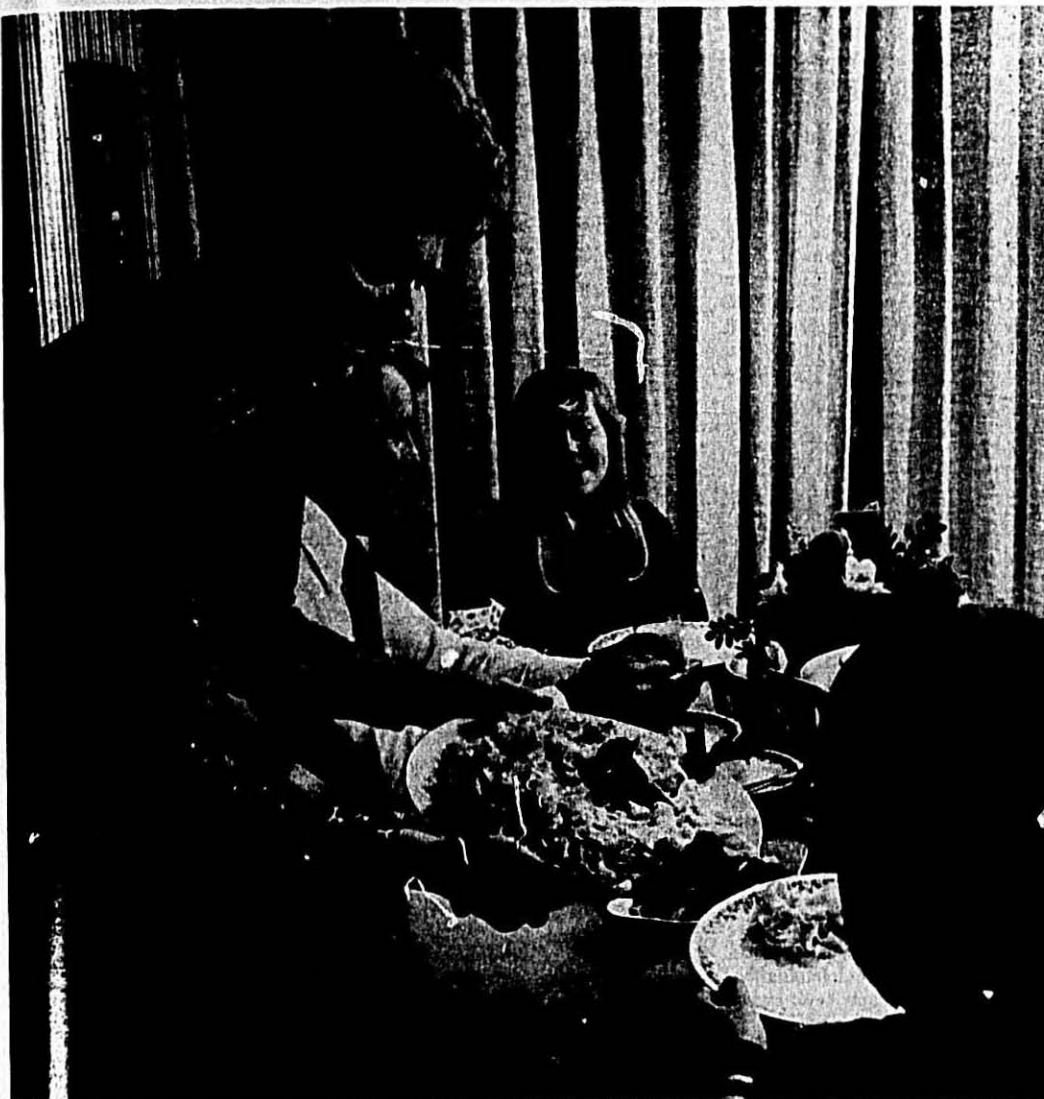
### Casing Equipment

The last of our customers' major problems with corrugated—although surely not least to the guy plagued with a breakdown—are those encountered with automatic casing equipment. Excessive downtime caused by poorly cut blanks tied with gluing or taping difficulty in frequency of mentions. Loading and coding problems are relatively rare. And not one respondent reported that he's having serious trouble with automatic insertion of partitions or other inner parts. This impressed me, because it wasn't too long ago that automatic partitioning was considered a very tricky business.

As an aside, only a small portion of the sample complained about rising equipment costs compared with the large portion who fumed about box prices. Probably the reason is that really efficient equipment pays out so quickly these days—with labor cost at better than 15 cents a minute—that the price, however high, seems less of an obstacle.

I'm not a machinery expert, and I won't attempt to cover the engineering side of corrugated casing other than to point out the many recent advances in random case sealing, both tape and glue; in wraparound casers; in economical and quick-setting cold glue sprays; and in computerized

(Continued on page 26)



Food cooks always give good reviews when the cook serves up good-tasting, wholesome noodle dishes.

**The cook with  
fussy customers  
has to use  
her noodle.**

Sometimes the people hardest to please are sitting right around the family table. So the smart cook really uses her head...and serves up good-tasting noodle dishes.

But the best noodle dishes begin long before they reach the table. They begin on the farms of the northern plains, where the nation's best durum wheat is grown.

From this durum wheat, Amber Milling mills fine pasta ingredients...Venezia No. 1 Semolina, Imperia Durum Granular, or Crestal Fancy Durum Patent Flour.

At Amber Milling, we're serious about pleasing our customers. We know you're fussy about quality. So we deliver semolina and durum flour that makes it easier for you to please all your "fussy" customers. Specify Amber!



**AMBER MILLING DIVISION of THE GRAIN TERMINAL ASSOCIATION**

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





## Boxes

(Continued from page 24)

label printer/applicators, to name just a few.

Come spring our own engineering department will introduce a loader for frozen dinners that will automate what has been a tedious manual operation, because of the product's slick surface and often erratic shape. We'll also have an automatic inserter for bag-in-box applications that cuffs the bag over the flaps for filling.

As labor costs continue to rise, our engineers foresee a steady increase in total systems, especially for cartoned pouches. These will start from roll-stock and run uninterruptedly through cartoning, case-packing and automatic palletizing, the whole thing monitored by electronic watchdogs.

Not all packagers, of course, have the volume to justify such high output and investment. But they, too, have soaring labor costs. Of interest to them is a new style or box with an automatic bottom that permits very fast set-up. There have been a number of automatic bottoms in the past, but all were fairly costly because of the additional board needed for overlapping lock flaps. This newcomer, the Stolmar Redi-Set, uses a pressure flap along with patented over/under design to achieve a tight bottom with very little extra board.

### Other Improvements

Other structural improvements are coming. You can look for better resin adhesives that minimize delamination. There's work being done with spray-on chemicals for selective strengthening of box pressure points. Case designs employing cross-fluting for more strength aren't commercial yet, but they're well past the gleam-in-the-eye stage.

There's even a new process under development by the Japanese that would produce corrugated board without the use of a steam source. I'd mislead you by implying that this is just around the corner. Our technical people estimate that success is at least ten years away. But if it works out, it could mean an improved board with tighter specs, warp-free, with less washboarding—produced with less energy and very little noise.

Closer down the pike, what do we see?

First of all, of course, is metrication with all its opportunities for posi-

tive change. It can be a nightmare, or a tremendous boon to packaging, depending on how it's handled.

We expect more pre-use container testing. We already have some very sophisticated test procedures, with more coming along all the time. There will be closer liaison between users, suppliers and carriers before damage occurs. The transition to metric board weights will be an ideal time for this.

There will definitely be more bulk packaging for a wide variety of products from loose tobacco to men's shirts. In many ways this packaging/material handling relationship is the last frontier of huge potential savings.

Now that the railroads are charging for use of their equipment after only 24 hours rather than 72, and the truckers are making noises about charging for docktime on an hourly basis, it's no longer sensible to load and unload cases one at a time. There will be broadened use of such equipment as the basaloid attachment for top fork lifting of one-piece containers; more special slipsheet-handling units for use with disposables like our palapads; more boxes with side reinforcements specially designed for clamp-truck handling.

Increasingly, bulk containers are serving as substitutes for expensive racking. Often they permit use of older, sub-standard warehouse space instead of specially designed and equipped new structures built at today's prices.

You'll see more octagonal bins, because every corner added to a container gives it more rigidity and strength. The octagonal was originated by Tri-Wall Container, using triple-wall corrugated. Now we, Inland and probably others are working with laminated double wall that adds one-third more strength. These big bins—holding up to a ton of product—have countless industrial uses. They also have many advantages for produce and meat. Potatoes and watermelon are two successful ventures to date, as well as meat trimmings.

We think there will be a continuing trend to larger-sized packages at all levels of distribution, and corrugated will play a leading role.

### Containervac System

Our Containervac System—comprising a laminated nylon/polyolefin has proved itself for the bulk packages of frozen fruits, nuts, pickles and

other foods. The next market concentration will probably be far ahead—for water-based latex paints. We expect it to shave 40% off the cost of conventional 5-gallon steel pails. It's also lighter in weight, more efficient in cube and more easily disposable. You ask, why the vacuum for paint? It evacuates trapped air, improving product quality and shelf life.

On other fronts, we see increasing use of corrugated point-of-purchase displays and sales promotion items to help motivate consumers' inclination to buy.

Another new and interesting use of corrugated is for exhibits in trade shows, lobbies and showrooms. We call these low-cost, fire-retardant exhibit systems, perimeter.

All the preceding sounds very upbeat—and it is. But we in boxmaking are realistic enough to know that there are some shoals ahead.

### Possible Problems

The corrugated market historically has increased at a greater rate than the gross national product because of market extensions. This is still taking place to some extent, as evidenced by the wine, paint, soft goods and other newsworthy developments that I've already described. But the opportunities for new market penetration are declining. The future growth of corrugated may be more nearly equal to GNP growth, and in some areas there will be erosion.

In the past two years, corrugated has lost about 1% of board sales, something more than 2 billion square feet, to shrink and stretch films, primarily for case wraps and bundling. The penetration now is estimated at about 4 or 5%. It may go as high as 10% by 1980.

We will also probably suffer a very small loss to plastic corrugate for certain specialty markets. However, the really big markets just don't seem to be there for plastic corrugated. No matter how much its price may come down—and there are no signs of this—plastic corrugated plants would have to be nearly as widespread geographically as fibre box plants are today to make a real impact.

Another cause of unhappiness for us right now is the relatively low vitality of recycling, though corrugated is faring somewhat better than the average.

Despite these negatives, we all know that recycling is the only long-term solution for an uninterrupted corrugated supply. It must come.

Overall, we in boxmaking are very optimistic about the future. There will be minor adjustments here and there, but we see much progress ahead for the packaging industry in general and corrugated in particular.

But, in the unlikely event that our packager customers should ever decide they no longer want our product, we have back-up markets.

We can assist aquariums such as Shedd here in Chicago to gather exotic samples from the South Seas. We can heat plants and homes. We can replace the traditional canvas bags so dear to the postal service. We can provide a private spot to vote in for only \$2.25, compared with \$40 for a wooden booth. We can feed cattle. We can even house them—and maybe people too.

That's pretty fair versatility from a flat sandwich with only lumpy flutes between. And as we said at the very beginning, we've only just begun.

## Corrugated Shipments Up in 1976

Shipments of corrugated and solid fibre boxes reached 216.4 billion square feet in 1976, according to preliminary data released by the Fibre Box Association.

The figure represents an increase of 11.2 percent over 1975 shipments, virtually an even recovery from that year's 9.9 percent decline. The 1976 total is also the second highest in the industry's history, the record year having been 1973.

The new figure pushed the industry's average annual growth rate in the decade of the '70's up from a scant 1.0 percent (1970-1975) to 2.7 percent (1970-'76). This is a significant improvement, but still well below the 5.4 percent average for the 1960-1970 period.

Forecasts of box demand prepared for the Association by Merrill Lynch Economics estimate that 1977 shipments will be up 6.1 percent, to 230 billion square feet, and that volume for the 1977-1981 period will grow at an average annual rate of 4.8 percent.

The 1976 recovery—actually a continuation of the levels reached late

in 1975—was spread evenly across the country. Eastern Division shipments reached 79.6 billion square feet, up 11.2 percent. The largest region, the Central Division, gained 11.9 percent to a total of 103.0 billion square feet, and the smallest, the Western Division, reached 33.8 billion square feet with a gain of 10.0 percent.

Preliminary data will now be refined through audit and census procedures. Final figures will not be available for several months.

## Corrugated Shipments Up in First Quarter

"We are continuing to project growth in fibre box shipments of 6 percent this year and 5 percent next," economist S. Paul Moscarello told industry executives at the Spring Meeting of the Fibre Box Association. However, "future forecasts on the order of 1/2 to 1 1/2 percent, are not inconceivable," he warned.

Corrugated box shipments, "though showing a definite upswing in the last four weeks of the first quarter, have failed to demonstrate as firm a tone as we had hoped for," the Merrill Lynch Economics vice president said. The forecasting firm had projected a first quarter gain of 5.6 percent over the first quarter of 1976. Actual growth, slowed by the severe winter, was only 1.8 percent.

### Forecast Update

The forecast update of 6 percent for 1977 is slightly below the 6.4 percent projected earlier. Total shipments are now expected to reach 229.3 billion square feet for the year. The 1976 total was 216.4 billion square feet, valued at \$6.4 billion. Fibre Box Association members produced 89 percent of the volume.

The revised projections for the remaining quarters of the year indicate gains of 6.3, 7.0 and 9.8 percent, in that order.

A recently completed analysis of corrugated's end use markets for 1976 "provides some revealing insights that seem to have been at work in box markets since the early 1970's," Moscarello said. "It appears that certain markets have experienced loss of position and others gains in the 1972-1976 period, with the net effect being a possible setback of substantial magnitude."

He went on to explain that "The implications for future growth of corrugated could be serious if losses in paper-industry markets continue or if erosion in the durable goods markets maintains its recent pace. Gains in other end uses, particularly food, are slowing, and future overall growth could therefore be sluggish," he added.

## Metrication Is A Management Task

Metrication is more than changing one set of dimensions and numbers for another set. It's an opportunity to take a good, hard look at overall operations with an eye toward increasing your capabilities and efficiency. But you won't make the most of this opportunity unless you thoughtfully plan and manage it.

That's what "Managing Metrication in Business and Industry" can help you do. It was written by experienced metrication managers to help other managers establish a management program for conversion. This hard-bound book starts with a comprehensive look at preliminary planning and investigation: setting priorities, conversion strategy, establishing company policy. The effects of metrication on specific company operations are examined: engineering, manufacturing, marketing, data processing, and training. A special section on cost management points you toward the minimum-cost approach.

*Managing Metrication in Business and Industry* is available from American National Metric Council, 1625 Massachusetts Avenue, N.W., Washington, D.C. 20036, for \$25.

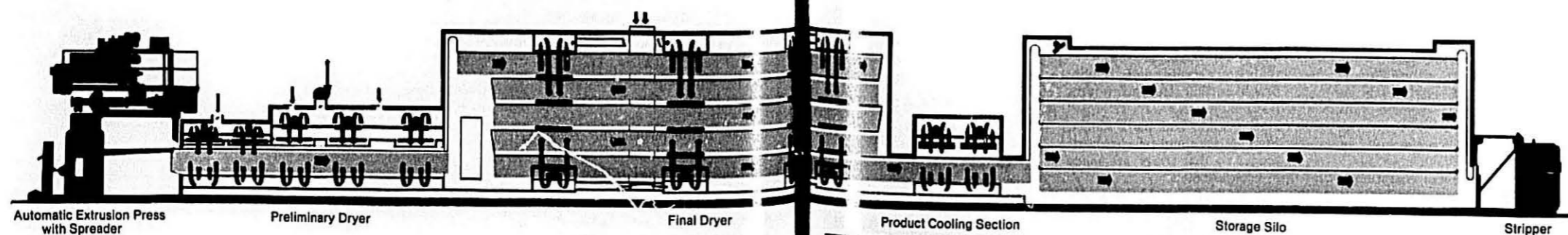
## Think Metric

A "Think Metric" outdoor advertising campaign, designed to demonstrate the effect of billboard communication on the public, is being conducted in many parts of the country.

In the southeast the billboards say, "There are 2.54 centimeters in an inch," in the northeast and midwest, "There are 28 grams in an ounce," and in the west, "There are 3.8 liters in a gallon." Mel Grayson, executive vice president of the Institute of Outdoor Advertising, said it would be difficult to measure the impact of a theme as broad as the metric system, so single facts of linear, weight, and liquid measure were chosen.



# ATR: The hotter, faster, cleaner dryer.



Automatic Extrusion Press with Spreader

Preliminary Dryer

Final Dryer

Product Cooling Section

Storage Silo

Stripper

**Braibanti** corporation  
60 EAST 42ND STREET-SUITE 2040 - NEW YORK N. Y. 10017  
PHONE (212) 682.6407-682.6408 - TELEX 12-6797 BRANY

Practically reduces the time required in the production cycle.

Higher drying temperatures reduce plate counts to well below industry standards while enhancing product flavor and quality.

Electronic controls sequentially start and stop fans as the product moves by.

Pneumatic controls regulate relationship between time, temperature and relative humidity.

At the end of the final dryer, a power-driven cooling section reduces product temperature to a safe packaging point.

Braibanti ATR—newest in the long line of Braibanti pacesetting Pasta Dryers.

Braibanti, the world's foremost manufacturer of Pasta Equipment.



Plate Counts Slashed.



Side Panels Open for Easier Cleaning Lock Tight to Conserve Energy.



Cooking Qualities Improved. Stickiness Eliminated



Drying Time Chopped.

# Braibanti

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



## Is Your Plant A Likely Candidate for a Teamwork Effort?

by Robert C. Scott,  
Vice President,  
The Eddy-Rucker-Nickels Co.  
4 Brattle Street  
Cambridge, Mass. 02138  
Self-testing Checklists

Corporate annual reports, trade journals and texts on wage and salary administration contain more mentions than ever before of the successful uses of various programs for encouraging better teamwork and employee cooperation toward productivity improvement. Gains in output provide extra profit to the companies and extra income to their employees.

The era of partial coverage individual incentives seems to be giving way more and more to broad coverage programs which strive for improvements in many more ways than simply more units per hour by following established methods. Not only is there a greater need for coordination and cooperation between individuals and small groups but a need for continuing change in methods, tooling, machines and even in products.

There is no longer much confusion in peoples' minds between the two main types of full coverage incentive—Profit Sharing and Production Sharing. Profit Sharing is often very volume sensitive with rising payoffs when volume increases regardless of productivity changes—and nearly impossible goals when volume falls. Production Sharing programs provide a productivity-related opportunity regardless of normal volume swings.

One key to successful operation of a plant-wide productivity improvement program is a continuing and comprehensive idea program aimed at reducing wastes, solving production problems, and increasing the proportion of paid-for time spent actively working.

Productivity improvements from a plant-wide incentive will improve profitability, increase capacity, improve employee relations and provide an ability to pay future wage increases without reducing profits. But such programs are not applicable to

every business. The "where" and the "when" must be rather selective. Here are some filters you can apply to your own situation:

### Phase A

You should be able to answer "yes" to at least four of the following:

- Do you have at least 60 plant employees?
- Has the operation been reasonably profitable in recent years?
- Do you anticipate continued operation at the same site?
- Is there a variety of end products going to a variety of markets or customers?
- Can a growing volume of output be marketed?
- Would it be reasonable to expect improved cooperation by employees?

### Phase B

This is a basic listing of the types of ideas which often come from plant employees during the operation of a plant-wide productivity sharing incentive plan.

Check off those which would have potential in your own shop. The higher the proportion of items you check, the better the odds for success with a teamwork program.

- Smoothing the flows of shipments to reduce end-of-week and end-of-month jam-ups.
- Reducing errors and quality problems that lead to returns from customers.
- Setting aside bad parts sooner.
- Finding out about off-spec parts sooner so that fewer are made in each instance.
- Improving the yield from raw materials.
- Making sure of full weight and count for purchased items.
- Reducing consumption of all types of shop supplies including maintenance and shipping materials.
- Helping to save on electricity, gas and fuel oil.
- Decreasing the number of times machines go down unexpectedly while waiting for parts or for repairs.

- Shortening the time a machine is down once it has been stopped.
- Combining two machining or assembly operations into one.
- A jig or fixture which will make an assembly task simpler or easier.
- A task that is still called for but which may no longer be really necessary.
- A machine that could be modified to decrease its downtime, improve its output, or improve the quality of what it makes.
- A tooling modification which will allow faster production, require less tool maintenance and repair, or improve the quality of parts being made.
- Reducing the instances of mixed parts or the number of parts involved in each instance.
- Reducing the number of times that production has to stop while someone is waiting for material, information, parts, maintenance, or set-up assistance.
- Reducing the number of times that raw material, parts, and finished products are moved from place to place, not adding value.
- A way to share a better work technique with others who have same task.
- A workbench layout change that will make work flow smoother or easier.
- Reducing the number of instances when too few or too many parts are made as well as the amount of the over-run or under-run.
- Ways to prevent parts falling onto the floor or into the wrong container.
- Ways by which good supplies can be salvaged and used or re-used—chemicals, oil, packaging materials.
- Shortening the time, or reducing the number of times, necessary to set-up for a given production or assembly run.
- Keeping scrap clean and segregated as to type or kind so that the best price is obtained when it is sold.

# A SEECO BIN STORAGE SYSTEMS

## BIN STORAGE

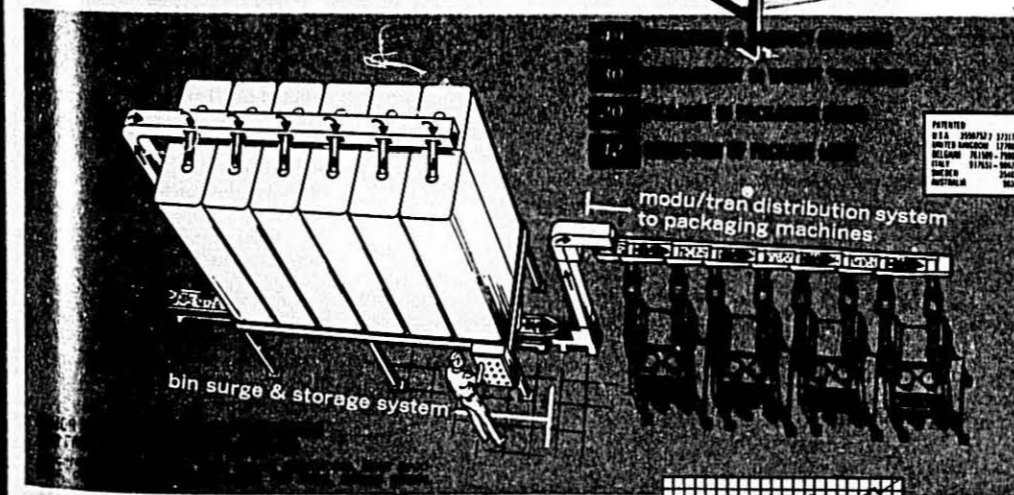
A fully automatic bin storage system for free flowing materials—Product is conveyed from processing into the Aseeco Bin Storage System by means of conveyors. The operator can fill any bin by operating a selector switch at floor level. In a few hours, when the bin is full and a signal is actuated, the next bin can be selected manually or automatically.

Material is discharged from bins on demand from packaging or processing machines. Automatic discharge gates at bottom of bins control material flow into belt or Vibra-Conveyors.

Bins are available in sanitary construction with bolt or weld on support structures. Optional equipment provides for a complete automated storage system for surge storage or overnight storage.

## OPTIONAL EQUIPMENT:

- Bin Full Signal System
- Bin Empty Signal System
- Bin full light indicators
- Bin empty light indicators
- Lucite view ports on side and bottom of bins
- Y type multi discharge outlets
- Spiral lowerator chutes
- Multi-station infeed conveyors
- Under bin collector conveyors
- Pneumatic control panels
- Electrical Control and indication panels



services offered: Plant Engineering and Layout  
Electrical Engineering and Control Panels  
Erection and Start-up

Write for your nearest representative.  
ASEECO 8857 W. Olympic Boulevard, Beverly Hills, Calif. 90211  
(213) 852-5760 TWX 810-480-2101





### For a Teamwork Effort

(Continued from page 30)

- Ways to train people who are new to a given job easier, quicker, better.
- Ways to improve communications between shifts.
- Reviewing dimension tolerances and surface finish specifications to make sure that they are not too tight as well as tight enough.

### Phase C

What is your best estimate of the time now being wasted by the average employee which could be devoted to production if he wanted to, was expected to by his fellow workers and if external delays were reduced by better work performance on the part of others in the organization? Note: a conservative guess of the number of minutes per day for the average employee for each of the following:

	Minutes per day
Starting to work late	—
Stopping early for coffee breaks	—
Ending coffee breaks late	—
Stopping early for the lunch period	—
Ending the lunch period late	—
Stopping to wash up early	—
Looking for hand tools	—
Looking for jigs and fixtures	—
Unplanned adjusting of machinery	—
Waiting for machinery to be repaired	—
Waiting for information and instructions	—
Waiting for materials to be brought to him	—
Waiting for parts at a storeroom	—
Waiting for something at a tool room	—
Waiting for the next work assignment	—
Unplanned material handling	—
Excessive conversations unrelated to production	—
Total	—

It is not unusual for even the most conservative estimates to total 90 minutes a day. If this could be cut in half, net applied working time would be increased from 6½ hours to 7¼ hours—an improvement in over-all productivity of 11½%.

### Summary

Changes brought about in the conditions enumerated in Phase B lead

to the better application of personal time listed in Phase C. The productivity improvements from "smarter thinking" and from more consistent application of personal time are additive and lead to very significant gains during actual operation of well administered plant-wide production sharing incentives.

### At Last—an Energy Policy

Inevitably, in view of the wide-ranging nature of the proposals, there is room for legitimate disagreement with some of them. But they do have one overwhelming virtue. Taken together, they constitute the makings of a national energy policy—a rational replacement for the incomplete, jerry-built, largely outmoded, and mostly inappropriate set of rules that we have today. Considering that the Arab oil embargo is three years in the past, it's about time.

Conservation is at the core of the President's program. By itself, the push for conservation is laudable. So is the principal means for promoting it—by pricing scarce oil and gas more in line with the high and rising cost of developing new supplies. It would be preferable if the determination of prices were left to the workings of market forces rather than to arbitrary government decision. But at least the Administration has recognized that prices of domestic oil and gas have until now been held by government ceilings at levels that encourage the use of these fuels to a degree the nation can no longer afford.

Allowing the laws of economics to influence energy demand—even in this incomplete way—should certainly constrain consumption. Unfortunately, the same economic laws would not, under the proposals, be allowed to operate fully to promote maximum output of domestic oil and natural gas. Prices received by oil producers would remain controlled, with adverse effects on cash flow for new investment. And even the higher price permitted for newly discovered oil would have a ceiling that is likely to be under the world price in future years. For some gas—that sold within the state where it is produced—prices would be controlled for the first time, and in some cases reduced.

In this respect, the program represents little if any improvement on the present unsatisfactory set of regula-

tions. Development of new gas supplies may continue to be discouraged. And dependence on unreliable foreign sources of oil will continue to be greater than it needs to be.

### Too much stick? Not enough carrot?

In somewhat the same vein, the program is deficient in the area of incentives for increased use of energy from domestic sources other than oil and natural gas. There is heavy reliance on penalties, in the form of taxes, and on ultimate outright prohibition against using oil and gas in some cases.

The process of converting to coal will place heavy financial burdens on American industry—especially so if strict environmental regulations on coal-burning are maintained. It is probable that much of the required investments for conversion will be financed with funds that otherwise would have gone into equally desirable investments in new industrial plants. That could slow down the nation's growth rate. More generous use of investment tax credits and rapid amortization could both speed up conversion and reduce damaging side effects.

But the fact that the program is imperfect is far less important than the fact that it exists. The painful process of facing up to the realities of our energy situation has finally begun.

### Highlights of the National Energy Plan

**Gasoline Taxes:** Would go up a nickel per gallon starting January 15, 1979, if gasoline use increases by 1 percent or more over a set target in 1978. Another nickel would be added each year if consumption continues to rise. Total impact could be a 1-cent increase over 10 years.

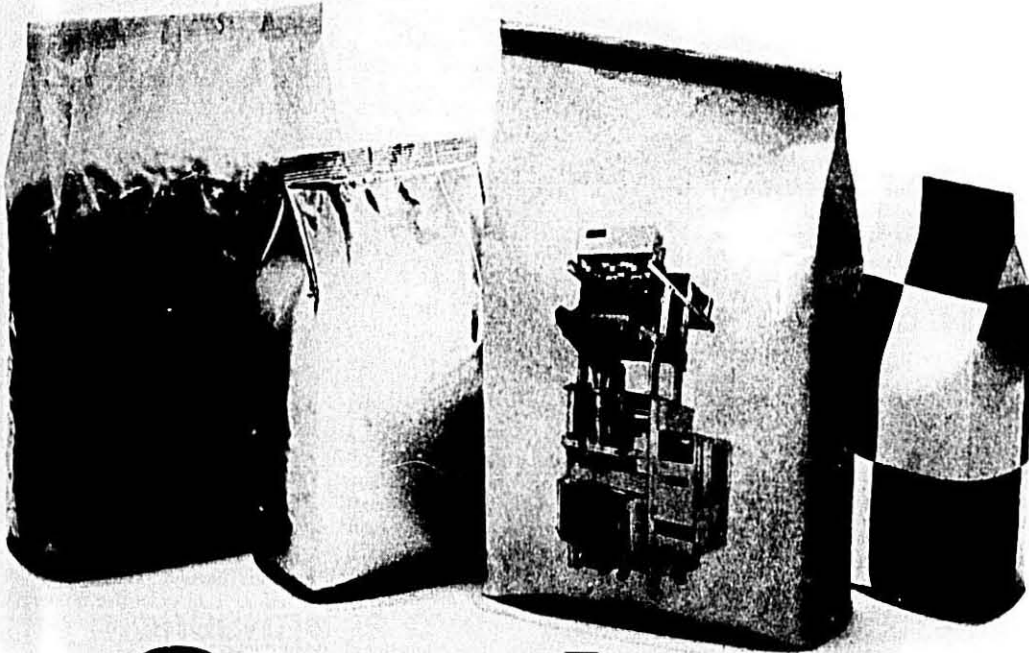
**New Cars:** A graduated excise tax on new automobiles with fuel efficiency below the fleet average levels required under current legislation; the taxes would be returned through rebates on automobiles that meet or do better than the required fleet averages and through rebates on all electric automobiles.

**Insulation Rebates:** Homeowners would get \$410 if they spend up to \$2,200 in a single year between April 20, 1977, and December 31, 1984, on

(Continued on page 34)

THE MACARONI JOURNAL

# Stand up.



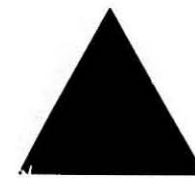
# Stand out.

Put your product in our flat bottom bag.

Show your product in flat bottom bags that really stand-up. Our Pulsamatic II FBB's exclusive system relaxes the film while flat bottom gussets are formed and preventing product from entering the folds to spoil your product. This gives you a true flat bottom bag that stands erect.

You can run the Pulsamatic II FBB System with our Flexitron 1600 net weigher, or our Volumetric or Auger feeders. Whatever way, you get all the speed and economy of flexible packaging, plus outstanding Pulsamatic II features like no cam shaft to adjust, simple dial tuning, film runout alert, diagnostic monitoring lights, integrated solid

state electronics and plug-in printed circuit boards. Make stand-out packaging that stands-up. Make it Pulsamatic II FBB System. To get the facts write: Triangle Package Machinery Company 6655 West Diversey Avenue, Chicago, Illinois 60635. Or Call (312) 889-0200.



Turn a profit. Turn to TRIANGLE



## Energy Plan

(Continued from page 32)

insulation or weatherstripping. Businesses would qualify for a 10 percent tax credit for insulation.

**Natural Gas:** Prices would go up to a uniform \$1.75 per thousand cubic feet on new natural gas for both interstate and intrastate deliveries.

**Domestic Oil:** U.S. crude oil would be taxed to raise prices to the world price, now at \$13 to \$14 per barrel—adding about seven cents to the cost of each gallon of crude oil and refined products, including gasoline.

**Tax Redistribution:** Revenues collected from gasoline and auto taxes would be rebated through the income tax system or direct payments.

## About Job Creation

An educational program to disseminate facts about job creation in the private sector has been launched by the Chamber of Commerce of the United States.

Keystone of the Chamber program is a 22-page booklet, "Who Is The Real Employer?—The True Source of JOBS," written by Dr. William H. Peterson, economist and educator. His work presents in lucid, logical fashion the process through which jobs are created in the American economy—and he also notes the forces contributing to joblessness as well.

The true source of jobs, the author asserts, is the consumer who controls the number of jobs available through purchases in a free marketplace. But he goes beyond this explanation by discussing the myriad other forces affecting the expansion of the job market: Capital formation and its offspring of productivity; the varying types of unemployment and government forces that have an impact on job creation and destruction, among others.

### Wage Unemployment

Much of today's unemployment is wage unemployment, Dr. Peterson says, explaining that wages have frequently risen beyond the point employers can pay workers, particularly the inexperienced new worker.

There is an answer to today's high rate of unemployment, Dr. Peterson says, namely reinvigorated wage flexibility, capital investment and consumer sovereignty. "More specifically,"

the author elaborates, "the solution lies in changes in laws—labor laws, welfare laws, 'full employment' laws and tax laws," all of which inhibit in some form or another the private sector's efforts to supply the nation's work force with the requisite number of jobs that consumer demand creates.

Since "unemployment is made in Washington," what is needed is "a positive new attitude toward freedom and free enterprise. . . We need an appreciation of the market system of supply and demand for goods and services, especially the services of workers. We need a realization that the law of supply and demand cannot and will not be repealed. We need to reaffirm the sovereignty of the consumer," Dr. Peterson concludes.

### Educational Program

This booklet is designed to be used in conjunction with a series of six professionally-produced public service announcements. National Chamber members can obtain these ads in reproduction proof form and they can be used with or without the Chamber's logo in employee publications and community newspapers. Each public service announcement can be used alone. All carry the message underscored in the booklet.

You can broaden this educational program even further by providing copies of the booklet for high schools, colleges and universities. Order the booklet and the public service announcements from Robert H. Moxley, the National Chamber's Director of Promotion.

### What Minimum Wages Can Do

Winn-Dixie Stores, Jacksonville, Fla. is advising Congress that higher minimum wages are forcing it to eliminate jobs for bag boys.

James E. Davis, Winn-Dixie chairman, told Sen. Jesse Helms (R., N.C.) that further minimum wage hikes, being considered by Congress, could erode supermarket profits and lead to additional service cutbacks.

Davis reported that Winn-Dixie's minimum for bag boys is \$2.30 an hour, with most of them earning more than that figure.

"If it were raised to \$3 an hour," Davis told Helms, "their pay would

be 5¢ a minute. It is not possible to spend 10 minutes wheeling cart of groceries out and unloading them into an automobile."

The Winn-Dixie chairman reported his chain had almost scrapped its "carry out" service already and thus had eliminated many jobs for youngsters who are "at an age where meeting the public, learning to sell and exercising discipline is paramount."

### Profit 1.9%

Winn-Dixie's profit last year was 1.9 per cent on sales, or "19¢ on a \$10 order," Davis said. "This could easily be wiped out by any number of changes in Government regulations."

Helms told the Senate that "it strikes me as odd that the Administration proposes to spend billions of dollars of the taxpayers' money to create make-work jobs for our young people, while simultaneously endorsing minimum wages that will destroy productive jobs in the private sector."

### Workplace Product Liability

The current workplace product liability crisis facing capital equipment manufacturers and sellers is a "tremendous burden" and, if left unresolved, says an executive representing the nation's packaging machinery manufacturers, "could have a widespread negative impact on the industry and, by extension, on the Nation's economy in general."

Claude S. Breeden, Jr., executive director of the Packaging Machinery Manufacturers Institute, called on the business community in general and on the federal government to seek "positive cures for the cancer of workplace product liability."

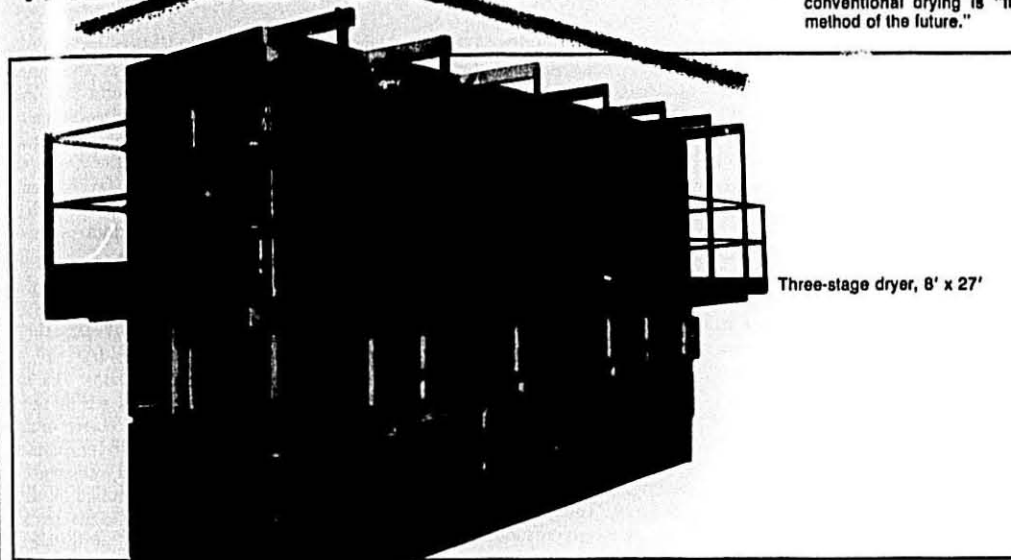
Speaking at a Washington seminar sponsored by The Packaging Machinery Manufacturers Institute, Breeden said that many of the 148 member companies of NMMA were already having difficulty obtaining or maintaining product liability insurance.

"Several of our companies," he reported, "have been denied product liability insurance at any price and others have recently experienced premium increases ranging up to 1000 percent."

**NMMA Washington Meeting  
Hotel Mayflower  
September 15, 1977**

THE MACARONI JOURNAL

## THE DRYER OF THE FUTURE



Three-stage dryer, 8' x 27'

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

## TODAY'S DRYER

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

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

Reduces infestation up to 99.99%. Kills: bacteria, Salmonella, E. Coli, Coliforms, mold, yeast, weavils and eggs.

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

Makes richer looking product; no blanching.

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

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

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

Compared with conventional dryer

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

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

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



**MICRODRY CORPORATION**

3111 Fosteria Way, San Ramon, CA 94583  
415/837-9108

New! Diewasher by Microdry. More compact; 2000 p.s.i. water nozzle pressures.

AUGUST, 1977



## Facts About Microwave Macaroni Drying

by Al L. Katskee, Vice President, Microdry Corporation

Microwave drying is a revolution that is more extreme than any phase of development of the Macaroni Industry since its inception. We have gone from screw presses to hydraulic to continuous in a rather orderly manner. The same is true with drying . . . until now. Finally we have the ability to do what we have been trying to achieve for hundreds of years—drying macaroni products from the inside out. Until now we have had to wait for the product to "sweat" or "rest" so that the moisture would migrate to the surface, where we could again dry some more . . . in small stages. We had to be careful not to "case harden" the product so the moisture would not get trapped, thereby causing the product to keep drying on the outside, but not properly, and "check" at a later date, when that interior moisture finally did make its escape.

Microdry greatly reduces the propensity of a product to check. The critical tolerances are much wider with Microdry because the electrical energy penetrates to the center of the wall of the product and drives, by force, to the surface, that easily trapped moisture that used to be the bane of the Macaroni Industry's existence.

### Advantages

There are many other advantages to Microdry processing. The following is a review of the advantages to a Macaroni Manufacturer in using the Microdry Microwave Dryer for processing his products.

1. **Space Utilization:** you get three to four times the production in the same square feet of floor space. With building costs soaring it only makes sense to keep them as minimal as possible. You could ultimately avoid an expansion of building for production purposes by utilizing Microdry.

2. **Time Utilization:** It only takes 1½ hours from the press to the dryer discharge with the Microdry. Of this time 45 minutes is drying and 45 minutes is inert equalization. Using the same hours in your production schedule as you use with conventional drying (8 hours) you increase productivity 5.42% on a five day basis.

3. **Product Quality:** The Microdry actually produces a better quality product than conventional processes. The quality superiority is in the cooking strength and "bite" when ready to eat, and color enhancement and microbiology when presented in the package. We will be pleased to submit samples of product made on the same pre-dry die, same raw material, but on a conventional and Microdry units. You will readily see the color differences, cook and taste the bite differences, and measure for yourself the starch sluff off of each product.

Attached is a total plate count comparison of egg products on 15 consecutive days in a plant that has exceptionally good manufacturing practices. The comparison is of two lines, one conventional, one Microdry, running the same product from a common raw material source.

### Microbiological Kill

By measurement Microdry kills Salmonella, Staph, E. Coli, Coliforms, Mold and Yeast. One manufacturer who uses only Microdry runs microbiological tests daily and after almost a year of operation has yet to have a total plate count of over 200 in an industry where 50,000 has generally been considered acceptable.

The color enhancement is achieved because of exact humidity control during processing combined with the fact that less oxidation of the pigments occurs with the Microdry process. We claim that practically the same color will come out of the dryer in finished form as goes into the dryer wet off the press.

We believe the superior cooking quality is a result of the high heat achieved in the Microwave section that causes an enhancement of the gluten quality along with a melding of the starches to create a more cohesive product that better resists the breakdown of starches during the boiling process.

4. **The sanitation advantages** of the Microdry are numerous. It takes only 6 man hours to clean the Microdry as opposed to 24 man hours and up in a conventional dryer. Dryer for dryer, you will save at least \$100 each time

you clean. The Microdry has complete accessibility from the outside. A unique product guide that drops down with a flip of a handle permits complete access to all areas between the screens. Because the dryer is all stainless steel it can be washed or steamed down if desired. It is equipped with floor drains.

5. **Construction:** The Microdry is all stainless steel and uses polyurethane foam for insulation. Even the racks, structural members, and chains utilize stainless. The Microdry is pre-assembled in our plant. The fans, screens, radiators, and wiring are all in the unit. The dryer comes in three basic pieces—top pre-dryer, bottom-microwave/cooler, and microwave air system. It can be installed in about 1000 hours as opposed to 6000 to 8000 man hours consumed in installation of conventional European units. Your plumbers must complete the piping from the radiators. The electricians only need to wire from terminals in the dryer to the control panel and from panel to main. They must also wire from the main to the Microwave Power Generator. Western Globe Products of Los Angeles installed their unit in 830 man hours, including those expanded by Microdry personnel.

6. **Operating costs** are considerably lower with Microdry. A study conducted by Lipton in 1972 indicated that total costs of operation of two units, one Microdry, one conventional were \$4.67 per hour for the conventional and \$3.44 for the Microdry or \$1.23 per hour less for the Microdry or a 35% savings. These costs included utilities, sanitation, maintenance, and power tube cost.

Some preliminary tests conducted by ourselves in cooperation with some macaroni manufacturers indicated that Microdry used from 25% to 50% less BTU's for drying than conventional dryers. Four tests conducted, drying identical product, 2 Microdry units and 2 conventional units, resulted in the following BTU consumption.

"D" Conventional=470 BTU's Per Pound of Finished Product

"B" Conventional=397 BTU's Per Pound of Finished Product

"A" Microdry=318 BTU's Per Pound of Finished Product

"B" Microdry=242 BTU's Per Pound of Finished Product

A and B Microdry Units were exactly the same design except B had an insulated air system. A did not.

Another operating feature of the Microdry is the tab system used as a shield over the screen chains. If product should get under the product guide the tabs will prevent it from becoming contaminated in the chain.

Each pass of the dryer has a self-cleaning feature that causes chips and small pieces that should work their way between the screen to discharge out the side of the dryer instead of working their way back into the product stream.

Microdry has attempted to reduce waste to a minimum. One manufacturer who regularly produces over 500,000 pounds per week runs a waste factor of about 400-600 pounds per week. Many conventional dryers run this much per day with considerably less product throughput.

7. **Operating ease—**Microdry has attempted to create a dryer that takes a minimum of skill to operate. As Golden Grain's San Leandro Plant Manager, Bill Hoffman so aptly expresses it, "I can take a man off the street who has never seen a macaroni plant before and have him competent to operate a Microdry in two days. I would consider myself lucky if that same man could competently operate a conventional dryer in two years."

One of the advantages Microdry offers is for you to send your production people into the Golden Grain Chicago plant for a few weeks of familiarization so that when the unit comes to your plant your people will know enough about the unit to competently operate it. We also send a person, knowledgeable in Microwave macaroni drying, into your plant to start-up.

The entire dryer is operated from a graphic panel that shows every function occurring in the dryer. All drives are driven with SCR controllers that can be infinitely varied with great accuracy. The instruments utilize electronic dew cell sensors that eliminate the need to keep wicks constantly wet and water bottles replenished—all of which usually manage to clog up or run dry, as you are well aware, at two or three A.M.

The three stages of the dryer are controlled in terms of relative humidity.

The first stage, or pre-dryer, is a high static pressure unit with vane axial blowers instead of fans. It has an accuracy of  $\pm 1/2\%$  across the screen. Conventional units sometimes vary as much as  $\pm 5\%$  across the screen. We dry in the first stage to a target level of 17½ without fear of case hardening the product. Operating temperatures are in the 160-180 F range. Product is in this stage about 30 minutes.

The second stage or Microwave portion of the dryer has the ability to bring the product down to the target finished moisture in 10 to 20 minutes, depending on the product and load. The microwave energy penetrates to the center of the product, drives the moisture to the surface where the hot air system carries it away. The microwave energy can drive the moisture to the surface in minutes where in a conventional dryer that moisture migration to the surface takes hours. Because of the force of the microwave energy we don't have to be as concerned with case hardening or trapping moisture in the product as we do with conventional drying. The air temperature in this stage is 180-200F. Product temperature gets over 200F.

The final or third stage of the Microdry process is the cooling and equalization stage. It is just as vital to the process as the previous two steps. We maintain a relative humidity condition here of from 70 to 80 percent. Because the product comes off the microwave at extremely high internal temperature and is drying so fast, this process must be arrested and the product cooled as well as the wall temperature equalized so that the temperature differential between the product and the ambient air, to which it finally will be exposed, must be close enough that it will not cause the product to check or the bins into which it goes, condensate. Generally we exit from this stage with the product temperature at about 110F, although it is stable at higher levels. We attempt to do no drying in the third stage. The time in this section is about 45 minutes.

With the above listed advantages of the Microdry system it rapidly becomes evident to the successful forward thinking manufacturer that the drying system we have always considered as a "Someday we'll have . . . etc." is here, at hand, available and practical for all noodles and all short cuts. Long goods is not far away. We are in the final steps of prototype development. We have successfully dried long goods on a laboratory machine.

Microdry is a revolution that is more extreme than any phase of development of the Macaroni Industry since its inception. We have gone from screw presses to hydraulic to continuous in a rather orderly manner. The same is true with drying . . . until now. Finally we have the ability to do what we have been trying to achieve for hundreds of years—drying macaroni products from the inside out. Until now we have had to wait for the product to "sweat" or "rest" so that the moisture would migrate to the surface, where we could again dry some more . . . in small stages. We had to be careful not to "case harden" the product so the moisture would not get trapped, thereby causing the product to keep drying on the outside, but not properly, and "check" at a later date, when that interior moisture finally did make its escape.

### Handling Steam Process Operations

1. Steam can damage pump seals, instruments, and other equipment, depending upon the design and materials of construction. Block off or bypass equipment that can be damaged.

2. Sudden application of steam to cold equipment can cause failure by thermal shock or water hammer. Turn steam on slowly.

3. Steam heating can cause tremendous pressure in blocked-off vessels or pipes that are completely full of liquid. Make sure there is either adequate vapor space or pressure relief mechanism before applying steam.

4. Use of steam is a frequent way of unintentionally adding water to hot oil, either by direct injection or through leaking steam coils. Take proper precautions to prevent foam-overs.

5. Steam can condense to 1/1800th of its original volume. This reduction in volume can cause high vacuums. Provide adequate vents or vacuum breakers.

6. Always open the exhaust valve of a steam turbine before the inlet valve is opened.

7. Steam can generate static electricity. Take proper precautions such as grounding to reduce sparks.

8. In purging, the appearance of steam issuing from a vent is not a reliable way of telling the amount of air in steam. Use a noncondensables meter to determine completeness of purging.

9. When steam is used for blanketing to exclude air, be sure that sufficient steam is used to keep the temperature up to at least 180 F.

10. Steam is hot. Exercise caution to help prevent serious burns.



## Record Earnings for Multifoods

International Multifoods Corp. reported record earnings for its first quarter of fiscal 1978.

Net earnings rose 6 percent from \$3.8 million to \$4.0 million, and earnings per share rose 6 percent from 48 to 51 cents. Sales were \$200.2 million versus \$200.1 million in the first quarter last year.

Multifoods Chairman William G. Phillips told shareholders at the firm's annual meeting that he is confident of Multifoods' ability to produce a 10th consecutive year of earnings improvement.

"Last year in the second quarter we earned a record 62 cents," Phillips said. "I would expect our second quarter this year will be in that general area. In the final two quarters of last year we earned \$1.46 a share. Looking at our various plans and projections from our operating areas, I expect that we should be able to improve on that performance."

Multifoods has generated annual compound growth rates of 20 percent in net earnings, 16 percent in earnings per share and 9 percent in sales since 1968.

Phillips told shareholders that a strike by all Quebec flour millers in protest against Canadian government wage controls has continued since Feb. 1.

"Last year in the first quarter," Phillips said, "Canada contributed after-tax earnings of about \$950,000. This year, due primarily to the strike and the effects of currency variations on material costs, Canada showed an after-tax loss of approximately \$200,000, a reduction of about 15 cents a share from last year.

"Our company today has broadened its base to the point where an action such as this, serious as it is, is not crippling to the entire corporation," he said.

### President's Review

President Darrell Runke, reviewing the performance of Multifoods' four market areas, said that Consumer and Away-From-Home Eating were significantly improved from the year before, and Industrial and Agriculture were both down.

Runke cited a number of profit centers as improved in the quarter. Among these were bakery flour in Venezuela, export and durum flour in the United States, Robin Hood Flour

worldwide, the Canadian glass goods line (principally Bick's Pickles), Kretschmer cereal products, Supersweet Feeds, Mister Donut and the U.S. restaurant group which was led by Boston Sea Party.

Runke pointed out that the King Foods frozen portion-control meat operation, which had been unprofitable for some time, operated in the black for the first quarter.

He also said the company was pleased with the performance of its newly acquired Lynk's seed corn operation. "We are going to actively pursue additional acquisitions in other parts of the corn belt," he said. "In many ways we expect this business to grow in the same manner that we experienced when we built our U.S. Supersweet formula feed business over the past 25 years."

Runke said that areas which did not perform as well as last year included the bakery flour and export operations in Canada which were affected by the strike, as well as the company's U.S. egg and animal health and veterinary supply operations. The decorative accessories group did not achieve its planned sales growth and was down from last year, he said.

### Peavey Earnings Decline

Net earnings of Peavey Company in the third quarter ended April 30 amounted to \$829,000, contrasted with \$3,596,000 in the same period of last year. The quarter's net this year was equal to 14¢ a share on the common stock, contrasted with 83¢ a year earlier.

For the nine months ended April 30, Peavey's net earnings totaled \$6,801,000, or \$1.17 per share, against \$12,352,000, or \$2.15 a share, in 1976.

Net sales for the third quarter were \$120,386,000 and for the nine months ended April 30, 1977 totaled \$369,595,000, compared with \$128,724,000 and \$380,355,000 a year earlier.

Third quarter earnings were favorably impacted by the restoration of \$705,000, equal to 12¢ a share, of foreign income taxes previously provided for which have been deemed no longer necessary due to liquidation of a foreign subsidiary.

F. H. Corrigan, chairman, said, "The third quarter's disappointing earnings were primarily due to a serious loss from the grain merchandising operations of the Agricultural Group in the first two months."

He said earnings from the Consumer Foods and Retail Groups of Peavey were ahead of a year ago, both for the third quarter and first nine months. Industrial Foods earnings were up for the nine-month period, but were slightly lower than a year ago in the third quarter. Flour volume was described as strong in the third quarter, although dollar sales decreased due to lower selling prices.

Mr. Corrigan said Peavey's Retail Group, with strong building supply and farm store activity, and the Consumer Foods Group, led by increased volume of Brownberry Ovens specialty breads and croutons, both registered "impressive" sales gains.

"The worst is behind us," Mr. Corrigan noted. "April was a profitable month for our Agricultural Group, and earnings were improving."

### Corrections

Dr. Brendan Donnelly of North Dakota State University calls attention to some errors in the copy under "Cereal Technology" in the report on Plant Operations Seminars on page 4 of the June, 1977 issue.

Item (2) "Yellow berries cut flour extraction" should read "Yellow berries cut semolina and increase flour extraction."

Item (3) should read "Moisture of the wheat should run between 12% and 14%, higher percentages lead to mold and spoilage while lesser averages lead to dryness and breakage problems."

Item (5) should read "Protein should run between 12½% to 15%. Protein levels higher than 15% will tend to lower test weight. Protein levels lower than 12½% could affect milling quality."

Item (6) should read "Legal levels are required on semolina ash in some European countries such as Italy and France. In general the semolina ash levels obtained from semolina processed in our laboratory usually range from 0.55 to 0.6% on a 14% moisture basis. These levels are well within the legal limits required in these European countries."

### Crop Progress

Warm dry weather was generally favorable for crop growth but timely rains are needed.

Eight percent of the durum crop was in the milk to dough stage, one-third flowering, one-third in boot stage by the end of June.

**Milan 3-9 October, 1977**  
Milan Fairgrounds

Section: **MACHINERY FOR THE FOODSTUFFS INDUSTRY**

Machines and equipment for the:  
soft drinks industry  
confectionery industry  
dairy industry  
mills and fats industry  
production of bread, "gritain", biscuits, etc.  
Analytical appliances for the foodstuffs industry

Section: **PACKING AND PACKAGING**  
Section: **MECHANICAL HANDLING**

Offices IPACK-IMA - 20149 Milano (Italy)  
Via C. Ravizza, 62  
Tel. (02) 49.52.25-49.53.85  
Telex 39124 Ipackima



Put a feather in your Cap!  
Send a copy to a key man.

TO: **MACARONI JOURNAL**  
P.O. BOX 336  
P/ ATINE, ILLINOIS

Please enter one year subscription:

\$10.00 Domestic  12.50 Foreign

Name \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_

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

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

## JACOBS-WINSTON LABORATORIES, Inc.

EST. 1920

Consulting and Analytical Chemists, specializing in all matters involving the examination, production and labeling of Macaroni, Noodle and Egg Products.

- 1—Vitamins and Minerals Enrichment Assays.
- 2—Egg Solids and Color Score in Eggs and Noodles.
- 3—Semolina and Flour Analysis.
- 4—Micro-analysis for extraneous matter.
- 5—Sanitary Plant Surveys.
- 6—Pesticides Analysis.
- 7—Bacteriological Tests for Salmonella, etc.
- 8—Nutritional Analysis

James J. Winston, Director  
156 Chambers Street  
New York, N.Y. 10007



### Why Johnny Won't Eat —

The Chicago Tribune ran a Task Force Report on the National School Lunch program and turned up the amazing finding that at least \$600,000,000 worth of food in the \$4,000,000,000 federally subsidized program was being wasted every year.

Investigators William Gaines and Monroe Anderson spent ten weeks surveying and tasting school lunches. They also commissioned a chemical analysis of the subsidized meals.

They found all the meals tasted at least had no ill effects on their health. The food ran the gamut from meals as tasty as home-cooked to a spaghetti and meatball lunch with minuscule, unseasoned meatballs; watery, tasteless tomato sauce; and noodles reminiscent of cardboard.

They ate tough green beans, apples slurped with tomato sauce, and peas that had gotten into the blueberry back-up muffins that came with the frozen TV dinner meal.

### Big Business

The School Lunch Program is big business. It has become the fourth largest purchaser of food in the nation. The program was born out of great intentions after World War II to improve the health of the nation's children, particularly poor children, by giving them at least one balanced meal a day.

Congress enacted the law. The United States Department of Agriculture, Food and Nutrition Service, interprets the law and issues regulations while State Office of Education, School Foods Services Director distributes federal and state money and commodities to schools.

Local school boards set policy, decide what type of lunch service to provide. They are sometimes assisted by county school superintendents with paperwork. Lunch room managers or Food Service Directors in each school prepare the meals and have responsibility for the quality of the food.

The Tribune team found that schools preparing their own lunch meals every day, even offering cookies and cakes baked from scratch, had better results than those who offered reheated mass produced meals or cold sandwiches. And scratch cooking frequently produced measurably better nutrition.

It costs about the same to serve freshly prepared meals as to serve sandwiches or frozen meals, once equipment is paid for.

School officials often complain that they lose money on the lunch programs. State law requires all schools to supply a free lunch to needy children. This presents a problem for the 1,800 schools districts in Illinois that have no lunch program. But in addition to facilities school officials have difficulties with help. A cook has two responsibilities: first, to present a nutritious meal, then to make a person want to eat it. If one half of the job is done and not the other, then the food is wasted and the child gets no nutritional benefit.

### Food Service Budget

One Food Service Director balances a lunch room budget of hamburger meat at 8.5 cents, buns 3.4 cents, fries 4 cents, labor costs 24.6 cents, paper and packaging 4.5 cents, peach 5.6 cents, cookie 1.7 cents, milk 8.5 cents, total cost 60.8 cents.

But then there is the illustration of the ten-year old boy who didn't want the peach.

"You've got to take it", insists the cafeteria worker.

"But I don't want it", the boy counters.

"It's the law", the worker says—and as soon as the peach touches that child's hand, it becomes waste.

The Task Team found that during one lunch period in a public elementary school pupils threw away an average of more than a third of a pound of food from each lunch that weighed one and a quarter to one and a half pounds.

A cold lunch of luncheon meat sandwich, gelatin whipped, orange, milk; served to 30,000 children showed the following:

Based on Sample of Meals	Offered	Left on Tray	Percent Wasted
Protein (grams)	21.1	9.94	47.1
Calories	624	318	50.9
Vitamin A (intl. units)	470	391	83.2
Vitamin C (milligrams)	106	62.3	58.7
Calcium (milligrams)	438	143	32.6

A hot lunch of hot dog, applesauce, cole slaw, milk, potatoes; served to 205,000 children:

Based on Sample of Meals	Offered	Left on Tray	Percent Wasted
Protein (grams)	21	5.74	27.3
Calories	620	191	30.8
Vitamin A (intl. units)	496	254	51.2
Vitamin C (milligrams)	65	28.9	44.5
Calcium (milligrams)	486	130	26.7

Many children just will not eat vegetables, so the question becomes "Do we educate a child to eat different foods or let him eat what he wants, whether it is good for him or not, to keep down the waste?"

Some school feeding experts believe that placing unwanted food on the trays has an educational benefit—that children eventually will begin to eat the food and accept it.

But there is growing concern among nutritionists and educators that the School Lunch Program has not been delivering what was promised.

### Meals Short on Nutrition

Analyzing seven meals that were served to 361,000 children, the Task Force found that the meals generally fell far short of providing minimum nutritional standards. For example:

- All meals examined were short in calories, and did not provide the 833 calories recommended as daily dietary allowance for one meal. One that was served to children up to 14 years old provided fewer calories than the amount recommended for a two-year-old.
- Because of the amount of food that was left uneaten, the children in two Chicago schools, received the recommended minimum nutrition in only one of nine categories tested.
- All tested meals exceeded the limit of fat content recommended by nutritionists, who suggest a maximum of 30 to 35 percent fat. One meal of hamburger and french fries was 42.9 percent fat.

### For Improvement

Many school lunch administrators think the program would be more effective if parents took a more active interest in what was being served to their children both in the schools and in their own homes.

Suggestions to strengthen the local school lunch program include:

- Serving more varied menus, with at least ten different meals in the eye of lunches to avoid monotony.
- Using foods that have a proven acceptability with the children, occasionally introducing new foods as a test.
- Presenting food attractively in a lunch room that has a comfortable and pleasant atmosphere.
- Giving the children some voice in the selection of food that they will be eating by allowing them to consult cooks and dietitians planning their main menus.

Regulations for a Type A lunch say it must contain the following:

Meat and meat alternatives—two ounces of lean meat, poultry, or fish; or two ounces of cheese; or one egg; or one-half cup of dried beans or dried peas; or four tablespoons of peanut butter; or an equivalent of any combination of those foods.

Vegetables and fruits—three-fourths cup serving, consisting of two or more vegetables or fruits or both.

Bread—one slice of whole grain or enriched bread; or a serving of other bread such as corn bread, biscuits, rolls or muffins, made of whole grain or enriched meal or flour.

Milk—one-half pint of fluid milk as a beverage.

The goal of a Type A lunch is to furnish one-third the recommended daily dietary allowances (RDA) for children of various types.

Says Jane Volchick, consultant to the Task Team: "The Type A lunch is like a short-cut scheme to evaluate the quality of something. It is limited, and there are ways you can get around it and not meet the intent of the program."

The issues caught the attention of the Illinois House Appropriations Committee, which has formed a bipartisan sub-committee to investigate school lunch programs in the State. Schools can lead the kids to food but it can't make them eat and until the horrendous problem of waste is corrected, the children will be short-changed on nutrition, the taxpayer on what he is paying for and the food industry for the bad image they get in this sampling service of the School Lunch.

Educators need education and help.

### Brokers Seek Change in School Lunch Act

The National Food Brokers Association, according to a statement submitted to the House Committee on Education and Labor, opposes H.R. 1139, legislation extending the National School Lunch Act for five years with no changes because the measure "overlooks commodity distribution problems to the detriment of school children's nutritional well-being."

Mark Singer, president of N.F.B.A., said the association advocates giving states and local jurisdictions the option of accepting cash in lieu of commodities under the U.S. Department of Agriculture's school lunch program. "Food brokers support providing for the nutritional well-being of the nation's school children," N.F.A. said. "Moreover, food brokers believe the school lunch program needs improvement and added flexibility to provide school children an adequate variety of nutritional foods."

### For Improvement

The association said the present system of distributing commodities has resulted in a number of problems, "such as plate waste, poor timing of deliveries, excess quantities of certain foodstuffs, refusal of deliveries by school districts, and increasing storage, administrative and processing costs." The option of cash in lieu of commodities, it said, "would give each state or school district the right to elect the method of supplying nutritious school lunches to children that is most effective and economical."

### Cash System

A report by the General Accounting Office, the association added, "offers substantial evidence for revision of the commodity distribution program." The statement also cited a study by Kansas State University that compared the cash program of Kansas, the only state having such a program under current law, with the commodity programs in Oklahoma. "Both reports," N.F.B.A. said, "indicate that the cash system offers greater menu variety at generally lower cost and reduces or eliminates many of the problems associated with the commodity system."

"How to Cook Macaroni", training filmstrip, \$1 from National Macaroni Institute.

### Working Women

Much has been said and written about the influx of women into our labor force. The effects and implications for business are far-reaching.

Between 1970 and 1975, there was a net increase of 5.5 million women who took jobs or began to work. They swelled the nation's total female labor force to 37 million. Most of them are in the 25 to 44 age group—women who in the past tended to stay home and raise children. The percentage of women over 15 in the labor force jumped from 37.2 in 1960 to 46.3 in 1975. According to the U.S. Department of Labor, this figure will reach 48.4 percent in 1980, as more and more married women begin to work outside home. The long-established tradition that children need a full-time mother to look after them is slowly dying out.

Several reasons are cited to explain why so many women are or will be jumping on the payroll handwagon by the end of this decade:

- Effective birth control methods.
- Trend toward later marriages.
- Inflationary pressures on the family.
- Rising divorce rate.
- Increasing number of female college students who want careers.
- Women's Lib movement and downgrading of the job of the housewife.
- More effective Federal and State laws providing greater hiring opportunities for females.
- Larger number of counseling centers that help prepare women for the job.

Marketing will be tremendously influenced by this trend. More working women mean a greater market for readymade clothes, laundry services, labor-saving appliances, and other items designed to make housekeeping easier. The extra income can create a demand for better-equipped homes, newer furniture, second cars, or more expensive vacations.

The food industry, too, will stand to benefit. With ample money in her purse, the working woman is likely to give little thought to the few additional pennies she leaves at the supermarket in return for the built-in services she can take home in her shopping bag.



## INDEX TO ADVERTISERS

	Page
A D M Milling Co.	9
Amber Milling Co.	25
Asseco Corporation	31
Braibent Corp.	28-29
Buhler-Mieg, Inc.	16-17
DeFrancisci Machine Corporation	4-5
Diamond Packaged Products Div.	43
Fibreboard Corporation	2
International Multifoods Corp.	44
IPACK-IMA	39
Jacobs-Winston Laboratories	39
Macaroni Journal	39
Malderi & Sons, D., Inc.	11
Microdry Corp.	35
North Dakota Mill	13
Peavy Co. Flour Mill	22-23
Rosotti Consultants Associates	19
Seaboard Allied Milling Corp.	7
Triangle Package Machinery	33

## CLASSIFIED ADVERTISING RATES

Want Ads .....\$1.00 per line  
Minimum \$3.00  
Display Advertising .....Rates on Application

### FOR SALE

Rebuilt and Guaranteed

NOODLE CUTTERS

Demeco and Clermont

P.O. Box 336, Palatine IL 60067

ANALYSIS AND CONSULTING  
fast . . . reliable . . . low cost  
COLUMBIA LABORATORIES, INC.  
Box 40, Corbett, Ore. 97019  
(503) 375-2287

### European Study Tour

The National Macaroni Manufacturers Association is organizing a tour to visit the IPACK-IMA Show and plants in Italy, Switzerland, Germany and England, October 2-17, 1977.

Cost is \$1,437.50 per person, double occupancy. Single room supplement is \$200. Land rate only is \$925. Deadline is August 15. Write Association office.

### Appointment

William J. Koslo, a 22-year veteran and formerly executive vice president of Diamond International Corporation, was named president and chief executive officer recently.

### Deaths

William G. Canepf, former secretary of DeFrancisci Machine Corporation and one of the founders of the company in 1952, died June 30 at the age of 68.

Jerry Slaby, noodle-maker in Berwyn, Illinois, passed away in mid-June.

### Summer Salads

Veg-All Mixed Vegetables, the leading brand of canned mixed vegetables, will offer delicious new ideas for refreshing summer salads in a full-page, four-color ad in July 26 Family Circle.

The ad tells consumers that Veg-All can be used "in about every salad you can think of" including macaroni, egg, potato, tosserl, tomato aspic, chicken, seafood, ham and others.

Readers will be told they can get free salad recipes by writing to The Larsen Company, Box 500, Green Bay, Wisconsin 54305.

### Major Italian Foods Expand

Macaroni products are gaining popularity in the Northwest according to Ernest Merlino, Sr. and Ernest Merlino, Jr. of Major Italian Foods Co., Inc. of Kent, Washington.

A year ago they opened a 41,500 square foot plant as a replacement for an older establishment. This was the fifth plant with which the senior Merlino, 56, and chairman of the company, has been associated. He worked in his father's plant as a youngster.

With two highly automated lines operating around the clock five days a week the new plant produces 42 different products, and it packages for four private-label customers in addition to its own Majorette brand. Annual capacity is 30,000,000 pounds.

With space for two more production lines, the company already needs more room for storage and handling of output. Just getting under way is construction of an additional 27,000 square feet of warehouse facilities. The investment in building and equipment, including the addition, will run better than \$5,000,000.

### Young President

Ernest Merlino, Jr., 28, who recently moved up to president, is a business administration graduate of Seattle University who has worked in all phases of the operation.

He installed the first bolt in the new plant and intends to place the final one even though Andy Gildore, a graduate mechanical engineer from Manila, is vice president and plant superintendent.

Sales vice president Phil R. DeAngelo with extensive background in food marketing and former owner of a California Italian restaurant, says some national food companies call for 100,000 pounds of product at a time. Expanded warehouse space will help the firm to keep sufficient supply on hand for all customers.

First year's sales from the new plant topped \$4,000,000 and the Merlino's are adding new products with accompanying recipes and anticipating continuing growth.

### Marketing Manager

Warren W. Ashburn has joined San Giorgio Macaroni, Inc. as Marketing Manager. Mr. Ashburn comes to San Giorgio with extensive experience in advertising, promotion and product management. He was previously Manager of Marketing Services, then Director of Advertising & Promotion for Bachman Foods, Inc. Prior to joining Bachman in 1967, Mr. Ashburn served as Assistant Product Manager for the H. J. Heinz Company.

San Giorgio, the Lebanon, Pa.-based manufacturer of pasta and related products, is a subsidiary of the Hershey Foods Corporation. Along with its Kentucky-based Delmonico Foods Division, San Giorgio markets its products in every state east of the Mississippi.

Mr. Ashburn's responsibilities for the company will include all marketing, advertising and promotional activities on behalf of the San Giorgio brand.

In addition to his work in marketing, Mr. Ashburn, a native of Reading, Pa., is an instructor of political science for the Pennsylvania State University.

### Retail Supervisor

Herbert May has joined San Giorgio Macaroni, Inc., according to Jerome V. Guerrisi, Vice President of Sales & Marketing, of the Lebanon-based pasta manufacturer. Mr. May will serve as Retail Supervisor for the Delaware Valley district.

May was formerly with J. W. Riley Company, a Philadelphia food broker. He also worked for A. R. Wagner, Philadelphia, and Pennsylvania Dutch Mfgs, Inc., a division of T. J. Lipton. Mr. May has been associated with the Philadelphia sales area since 1954.

# We've been going together for nearly 50 years.

Our experience in the food packaging industry has led to a wide variety of products and services. We have a long history of providing quality products and services to our customers. Our products are made from the finest materials and are designed to meet the needs of our customers. We have a reputation for reliability and quality. We are proud to be a part of the food packaging industry and to serve our customers with the highest quality products and services.



Diamond International Corporation  
Packaging Products Division







Multifoods natural goodness is always in good taste

 INTERNATIONAL  
**MULTIFOODS**  
INDUSTRIAL FOODS DIVISION