

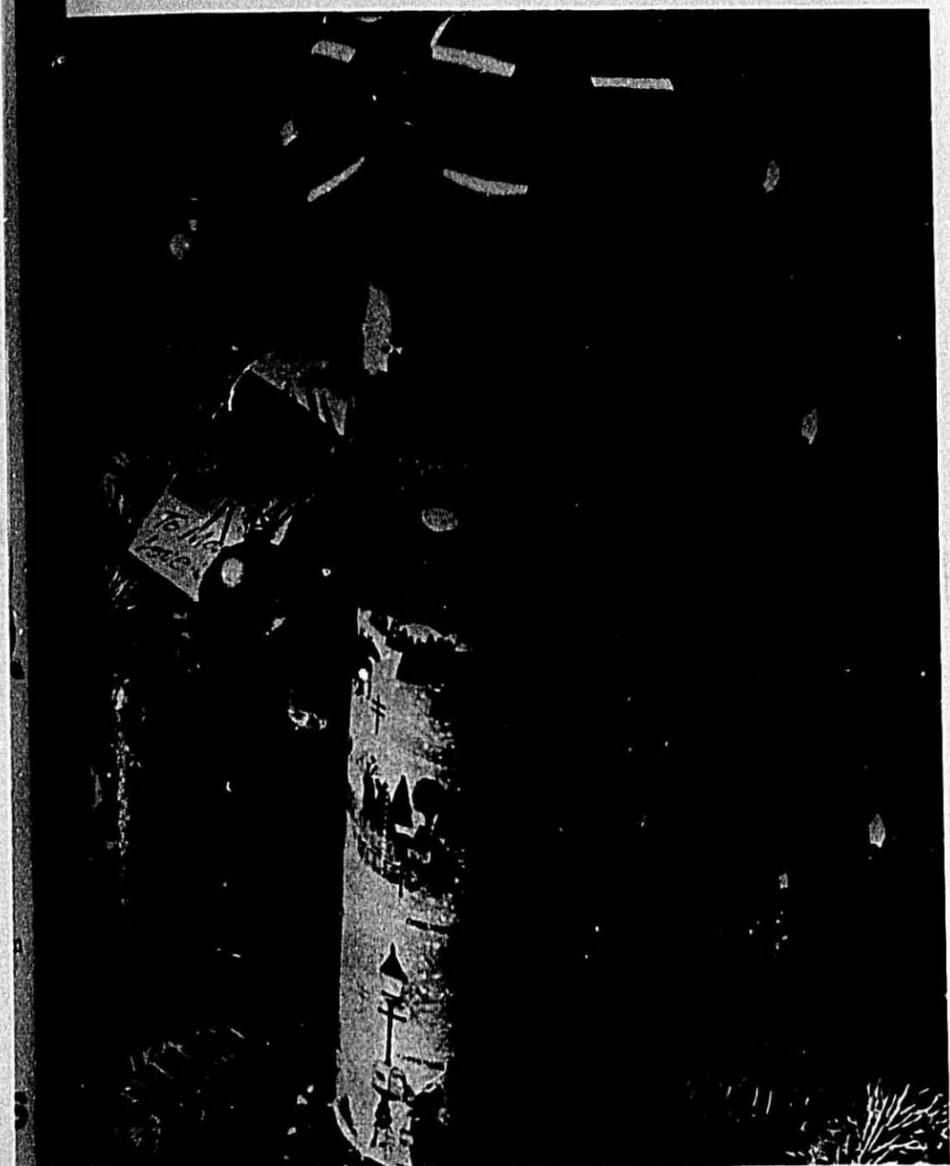
**THE  
MACARONI  
JOURNAL**

**Volume 58  
No. 8**

**December, 1976**

*Macaroni Journal*

DECEMBER, 1976



**Christmas Seals Fight Lung Disease**

# PASTA AL FIBREBOARD.

Pasta packaging with a special touch. From Fibreboard and Rossotti. Not just spaghetti in a box, but folding cartons with a flair. Discover the difference our knowledge of your business can make. Call us for help with package design, money-saving combination printing runs, any folding carton question. Fibreboard Corporation, San Francisco, California. Eastern Carton Operations, 560 Selvan Avenue, Englewood Cliffs, N.J. 201-568-7800.



the durum people



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

# The Macaroni Journal

December  
1976  
Vol. 58  
No. 8

Official publication of the National Macaroni Manufacturers Association,  
19 South Bothwell Street, Palatine, Illinois. Address all correspondence  
regarding advertising or editorial materials to Robert M. Green, Editor,  
P.O. Box 336, Palatine, Illinois 60067.

## Officers

President ..... L. D. Williams  
1st Vice Pres. .... Paul A. Vermylen  
2nd Vice Pres. .... Angelo Guido  
3rd Vice Pres. .... L. R. Thurston, Jr.  
Executive Secretary .... R. M. Green  
Director of Research .. J. J. Winston

## Directors

### Eastern Area

Joseph P. Viviano  
Anthony H. Gioia  
Emanuele Ronzoni, Jr.  
Nicholas A. Rossi  
Lester R. Thurston, Jr.  
Paul A. Vermylen

### Central Area:

Ralph Saril  
Lloyd E. Skinner  
Walter Villaume, Jr.  
Lawrence D. Williams

### Western Area:

Vincent DeDomenico  
Angelo Guido  
Robert William

### Canada:

John F. Ronald

### At Large:

L. M. (Andy) Anderson

## MACARONI JOURNAL

Subscription rates  
Domestic .....\$10.00 per year  
Foreign .....\$12.50 per year  
Single Copies .....\$1.00 each  
Back copies .....\$2.00 each

The Macaroni Journal is registered with  
the U.S. Patent Office.

Published monthly by the National  
Macaroni Manufacturers Association  
as its official publication since May, 1919  
Second-class postage paid at Appleton,  
Wisconsin, and Palatine, Illinois.

## In This Issue:

Cover Photo from American Lug Association, The "Christmas Seal People" .....	Page
Durum Show Report .....	1
Industry Cooperates to Increase Research .....	1
Hen Productivity Increases .....	1
In the Mills .....	1
Canadian Quality Report for 1975 Crop .....	1
Pasta Foods in Britain .....	1
Taking Stock .....	1
In the Industry .....	2
The Energy Crisis .....	2
Energy Reporting Background .....	2
Current Pesticide Laws .....	2
Moisture Testing Equipment .....	3
At the Packaging Show .....	3
Index to Advertisers .....	3
Statement of Ownership .....	3

## SEASON'S GREETINGS



THE MACARONI JOURNAL

## Durum Show Report

Langdon, North Dakota, site of the U.S. Durum Show and the ICBM missile site being phased out, has been hit by two economic punches: 40% of the civilian jobs running into 2,000 to 3,000 government employees have been lost and wheat prices are down below the \$3.00 level.

There was general recognition that the high prices of a couple of years ago had induced greater production not only in the upper midwest, but in Arizona and New Mexico. While durum prices are down, costs are up. The world food situation is much better than it was two years ago, so exports are lower. But the improvement, warned Dale Douglas, of the Foreign Agricultural Service of the U.S. Department of Agriculture, is not improved that we can lower our guard without running high risks that the problem might reappear in the form of even larger food deficits than we saw two years ago.

Of equal concern to the bearish market reports was the poor moisture conditions. Cold weather has moved into the territory. Snow flurries accompanying the change brought only moisture and this totaled only a few hundredths of an inch. Soil moisture in eastern Montana and the Dakotas is poor to very poor and some districts in South Dakota report that it is drier than it was in the 1950s. Much fall plowing and fertilizing was not done as the soil is so dry and top soil has blown during periods of high wind. With the lack of fall rains, serious problems face farmers in this territory and they will only be alleviated by weather conditions next spring.

### Mill Grind Up

Durum growers were encouraged by the improvement in the Durum Mill Grind and the fact that macaroni consumption continues its upward trend. There was agreement that there will be sponsorship in 1977 of another Spaghetti Safari to durum country, sponsored by the North Dakota State Wheat Commission, Business and Industry Development Board, North Dakota Mill and possibly the Durum Millers, along with the National Macaroni Institute.

## 1976 North Dakota Durum Wheat Survey

Grading Information	Key: H = Hard; A = Amber; D = Durum				
	High 1H HAD	Low 2 AD	Average 1 HAD	1975 Average 1 HAD	1974 Average
Vitreous Kernels, %	98	58	88	87	87
Shrunken and Broken %	2.9	0.4	1.3	1.2	1.3
Foreign Material, %	0.4	0.1	0.2	0.2	0.2
Damage, %	1.2	0.3	0.5	0.7	0.9
Total Defects, %	3.7	1.0	1.9	2.0	2.4
Docket, %	4.4	0.1	1.9	1.6	2.1
Test Weight, lbs./bu.	63.1	59.5	61.4	61.5	60.7
Moisture, %	12.1	9.2	10.9	12.6	12.7
Protein, <sup>1</sup> %	16.8	12.1	14.0	13.3	14.5
1000 Kernel Weight, g	47.1	34.7	40.2	40.8	38.5
Wheat Ash, <sup>1</sup> %	1.88	1.43	1.58	1.65	1.60
Kernel Distribution:					
Large, %	55	20	41	36	38
Medium, %	77	41	57	60	57
Small, %	4	1	2	4	5
Falling Number, units	585	313	469	388	370

<sup>1</sup> = 14.0% moisture basis.



Bob Green, NMMA Director, presents Durum Show President Bob Nowatzki with Sweepstakes Award.

### Good Samples

Grain samples in the Show were generally of good quality. Winner of the sweepstakes award given by the National Macaroni Manufacturers Association was Trent Anderson of Warwick, North Dakota, a 4-H Club boy with 63 pound test weight Rolette. A similar sample took second place for James Kirk of Crary. Third place was won by Mike Johnson of Galesburg with a 63 pound Ward sample. In the open class a Ward sample of 62 pound test weight was won by Roger Spidahl of Starkweather. Other winners included Wayne Berdal of Lakota with 62 pound Rolette Steven Lee of Lawton with 64 pound Botno; Tim Schwab of Crary with 64 pound Rolette and Allan Schwann of Devils Lake with 63 pound Ward.

### Wheat Protein Distribution

Wheat Protein*	1976	1975
11.0-11.9	—%	3%
12.0-12.9	18	26
13.0-13.9	29	56
14.0-14.9	35	15
15.0-15.9	12	—
16.0-16.9	6	—
17.0-17.9	—	—

\* 94 percent of the crop should be between 12 and 15.9 percent protein.

### Test Weight Distribution

Test Weight (lbs./bu.)	1976	1975
58.0-58.9	—%	—%
59.0-59.9	3	—
60.0-60.9	20	26
61.0-61.9	56	45
62.0-62.9	18	26
63.0-63.9	3	3

### Grade Distribution

Grade	1976	1975
U.S. No. 1 Heavy		
HAD	21%	20%
U.S. No. 1 HAD	30	31
U.S. No. 2 Heavy		
HAD	4	2
U.S. No. 2 HAD	17	25
U.S. No. 3 HAD	5	6
U.S. No. 4 HAD	1	2
U.S. No. 1 AD	5	4
U.S. No. 2 AD	4	2
Other	13	6

Based on all samples graded, 77 percent of the crop will grade 3 HAD or better.

Governor Art Link greeted the group and underlined the importance of continued research to produce

(Continued on page 8)

When you need a replacement part desperately,

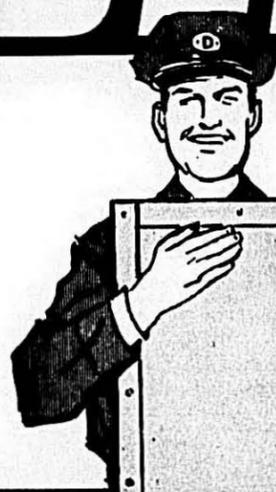
**DEMACO DELIVERS!**

When down-time's going down,

**DEMACO DELIVERS!**

When you need more production equipment,

**DEMACO DELIVERS!**



Ask about  
**DEMACO'S  
24 HOUR  
SERVICE!**

From a single replacement part to a sub-assembly, Demaco will ship to you within 48 hours.

Of course, for larger orders such as Presses or Continuous Lines, more time is required, but . . . when the delivery date comes up on your calendar . . . Demaco delivers!

Isn't that kind of service worth investigating?

For more details? Contact

**FRANCISCI MACHINE CORPORATION**

Wallabout St., Brooklyn, N.Y. 11206 • Phone: (212) 388-4801

Rep: Hoskins Co., Box F, Libertyville, Illinois 60048 • Phone: 312-362-1031



### Durum Show Report

(Continued from page 5)

quality grain that brings premiums in the marketplace.

National Macaroni Manufacturers Association President Lawrence D. Williams extended greetings as did Executive Secretary Robert M. Green. Stuart Seller, Vice President for Purchasing of C. F. Mueller Company in Jersey City, New Jersey attended the show and participated in the open discussions, as did several of the representatives of the durum mills.

Dr. James Quick, Agronomist at North Dakota State University, said the new variety, Cando, will compete with high yielding hard red spring wheats as a semi-dwarf variety. He noted that it also had good bread baking properties in addition to better gluten for pasta.

Dr. Brendan Donnelly of the Cereal Technology Department gave the quality report which indicated that the 1976 crop rates high in all categories. Both he and Dr. Quick will be on the NMMA Winter Meeting Program at Boca Raton, Florida in February to report on their activities.

Dr. Pasquella Barracano, Editor of Molini d'Italia, Rome, Italy, give a foreign importer's view of U.S. durum.

George Odegaard, retired purchasing agent of North Dakota Mill at Grand Forks, was presented a plaque in recognition of his leadership in the durum industry.

Some 800 townspeople were served a spaghetti supper and merchants displayed durum wheat and macaroni products artistically in shop windows throughout the town.

Show President Bob Nowatzki, Superintendent of the Langdon Station, and his Board did an excellent job in putting a fine show together. Other Durum Show officials include Richard Saunders, vice-president; Ray Marchell, treasurer; Morris Davidson, secretary; Howard Nuelle, Arvid Boe, Harold Hofstrand, Alvin Kenner and John Wright, directors.

### Indicated Durum Production

Indicated production of durum wheat October 1 for the United States was 137,901,000 bushels compared to last year's 123,182,000. Yields were down one-half bushel to average 28 bushels per acre.

### Italian Durum Team

The North Dakota State Wheat Commission hosted a twenty member durum processor team from Italy as they visited the state in October. The team, which included representatives of the major Italian durum milling and processing firms, arrived in North Dakota October 18 for a five day stay, according to Tim Nordquist, NDSWC Assistant Administrator, who accompanied the team in North Dakota and the twin cities.

Nordquist noted that Italy is one of the top customers for U.S. durum. "Italian U.S. durum purchases have been as high as 11.5 million bushels per marketing year, as with the case in 1974-75."

"Italian millers and processors like U.S. durum for its color and use it for blending with their domestic durum and durums from other countries to achieve the desired color in the finished pasta product," Nordquist added.

A main stop for the team was the U.S. Durum Show in Langdon. Dr. Pasquella Barracano addressed the Durum Show audience. Barracano is the editor of "Molini D' Italia," the major milling and processing publication in Italy.

### Other Stops

Other stops were for a tour of the North Dakota Mill and Elevator in Grand Forks and an extensive two-day seminar on the NDSU campus in Fargo. The NDSU seminar held at the Departments of Cereal Chemistry and Technology and Agronomy, involved briefings on variety development programs, durum milling and processing techniques and other items of pertinent interest to the team members.

Prior to their stop in North Dakota, the team visited the Minneapolis Grain Exchange and with grain commission firms in the twin cities area, Nordquist said. He added that the delegation will be traveling under the auspices of Great Plains Wheat, Inc., and the foreign Agricultural Service. A. Morgante, GPW Marketing Consultant in Italy, was the team leader.

### Wheat Loan Raised to \$2.25

In an action without precedent in the history of grain price support programs, John A. Knebel, Acting Secretary of Agriculture, on Oct. 13 an-

nounced loan rates for 1977 crop wheat and feed grains and at the same time made the new rates retroactive as immediately applicable to the 1976 crop. This meant that 1976 crop wheat support is raised 50% to \$2.25 from \$1.50 a bu as the national average. National average corn rate is increased to \$1.30 from 1.25, or 20%, with corresponding advance in other coarse grains. Only the soybean loan is unchanged.

Mr. Knebel, who became acting secretary several weeks ago following the resignation of Earl L. Butz, said the change in loan rates is being made now to give farmers timely assistance in the orderly marketing of this year's record crop of wheat, already in the bins, and the projected record crop, as well as large crops of other feed grains.

He cited competitive pressure established U.S. export market brought about by Canada's huge wheat crop, and better-than-expected grain crops in the U.S.S.R. He also referred to serious barge transportation problems caused by unusually low water levels during the peak of harvest.

Many observers, regardless of political affiliation, considered politics as the guiding influence in the move-

### Seaboard Allied

Net earnings of Seaboard Allied Milling Corp. in the first quarter ended Aug. 21 totaled 1,042,715, equal to 77¢ per share on the common stock up slightly from \$1,009,834, or 75¢ per share, in the first period a year ago.

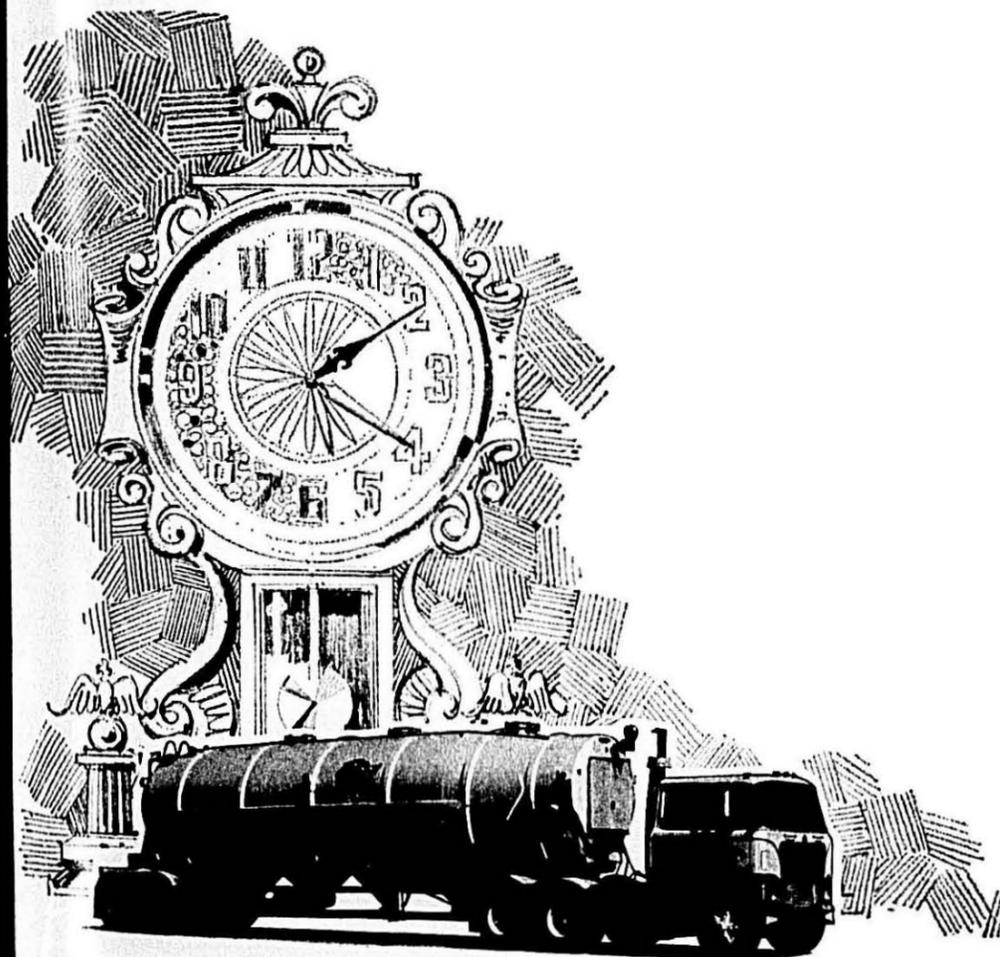
Sales totaled \$74,520,838, up 19% from \$62,614,498 a year ago. "In terms of units produced," the company said, "this was a 13% increase over the first quarter last year—a new record."

"Domestic production is quite strong, boosted by the full operation of the new Albany mill. All overseas operations are progressing satisfactorily."

Seaboard's shrimp-fishing operation in Nigeria, the company said, "is on target, and we are awaiting the arrival of five new trawlers in early November which will double the size."

**N.M.M.A. Winter Meeting**  
Boca Raton, Florida, Feb. 9-11

THE MACARONI JOURNAL



## Super Semolina Service!

Four hour delivery. That's how fast you can get freshly-milled No. 1 Semolina from Seaboard's new Albany mill to your plant in the New York / New Jersey or Boston Metro Area.

Operating its own fleet of bulk trucks, Seaboard has complete control of loading and unloading schedules. And load-cell scaling gives you super-accurate weights.

Check us out!

Seaboard . . . the modern milling people.



Seaboard Allied Milling Corporation • P. O. Box 19148, Kansas City, Mo. • (816) 561-9200

### Industry Cooperates to Increase Durum Breeding Research

A five-year grant of \$23,500 per year has been awarded to the Agricultural Experiment Station at North Dakota State University to expand durum breeding research. The grant, which is renewable on an annual basis, will be utilized for a research project that will be conducted in the NDSU Department of Agronomy under the direction of J. S. Quick, durum breeder, and J. F. Carter, Department Chairman. Assisting in arranging the grant were Melvin Maier of the North Dakota Wheat Commission, Lloyd Skinner of the Skinner Macaroni Company in Omaha, Nebraska, members of the U.S. Durum Growers Association, and staff at NDSU.

Four sectors of the durum industry combined resources to provide the grant: Three donors, (1) the National Macaroni Manufacturers Association; (2) North Dakota farm producers represented by the North Dakota Wheat Commission; and (3) the Durum Wheat Millers, via the Durum Wheat Committee of the Durum Wheat Institute, contributed \$7,000 each; and (4) a group of U.S. durum exporters who together contributed a total of \$2,500. The exporter grants to date came from Garnac Grain Co., Inc.; International Grain Management Corporation; and the Louis Dreyfus Corporation.

#### Comments

Mel Maier, North Dakota State Wheat Commission Administrator noted, "North Dakota durum wheat production is a vital part of the state's economy. Traditionally, North Dakota farmers provide about 85 percent of the U.S. durum production. Durum wheat is an important export and domestic product. The NDSU improvement program needs additional funds to help provide new, improved varieties which will effectively compete with other crops in North Dakota and the U.S."

Lloyd Skinner, Skinner Macaroni Company head added, "The production of higher yielding durum varieties and the maintenance of high quality characteristics will provide an even more desirable consumer product at a reasonable, competitive price." Mr. Billy Goodale of the International Grain Management Corpo-

ration concluded, "The durum improvement program at NDSU must continue to provide improved varieties which will compete with bread wheat for acreage, allowing a competitive price in world markets."

#### Objectives

The additional funds are intended to provide benefits in two general areas: (1) immediate results from short-term experiments and thesis research and (2) improved varieties for future production. The short term results will be immediately utilized in producing new varieties. Varietal development is a long-term effort usually requiring 8-10 years for completion from the final hybrid (cross) of the two parent types. Research Assistant, Roy Johnston, and Graduate Research Assistant, Tom Wilson, are supported by new funds to help carry out the additional program.

The durum breeding project, in cooperation with USDA and NDSU Department of Plant Pathology and Cereal Chemistry and Technology, has been developing new durum varieties for North Dakota and north central U.S. since 1929. North Dakota farmers have produced about 80 to 90 percent of the U.S. durum wheat during each of the past 18 years. Durum wheat is the primary wheat used for the production of macaroni and spaghetti products. About 50 percent of the U.S. durum production has been exported during the past 15 years.

Nearly 95 percent of the durum acreage in the U.S. is planted to varieties developed by the NDSU Agricultural Experiment Station in cooperation with the ARS, USDA. NDSU has the only large durum improvement program in the U.S. and NDSU-USA developed varieties are being grown commercially in several countries throughout the world. The University also provides parent stocks for durum improvement, particularly disease resistance and spaghetti quality, for virtually all durum improvement programs in the world, including the International Center for Wheat and Malze Improvement (CIMMYT) in Mexico, and durum breeding programs in France, Turkey and North Africa.

### Hen Productivity Increases

from the Wall Street Journal

Hens are laying more and more eggs each year, a fact that seems to have considerable implications for future price trends.

The rate at which hens produce eggs has substantially influenced production estimates already this year.

The Agriculture Department reports production through July exceeded 5.4 billion eggs, about 1% more than the earlier output. Paradoxically, the number of laying hens declined a similar 1% in the same period. Conversely, the 5.4 billion eggs produced during August was slightly less than July's output despite a 1% larger laying rate.

Market sources say the rate of lay was the primary factor in both instances: Although the overall output per hen in recent years has steadily increased, hot weather temporarily reversed the trend during August.

An expected higher rate of lay for the rest of this year, combined with a slight increase in flock size, leads to a net gain in egg production from earlier levels going into 1977.

#### Rate of Lay

"Rate of lay is very much a factor when projecting production and prices," says Gene Masters, president of Masters Agri Consultants, a consulting firm based in Athens, Ga. "We believe that each 1% change in the U.S. supply changes wholesale prices by 5% and the prices farmers get by 7%," he says.

Mr. Masters bases those calculations in large part on the inelastic nature of egg demand. In the short run, the housewife generally is going to buy the same number of eggs regardless of the price is 68 cents (a dozen) or 75 cents," he explains. "Therefore, a small change in supply, such as that brought about by increases or decreases in the rate of lay, normally will result in inordinately large price swings."

Despite seasonal factors that can affect the rate of lay from month to month, the rising trend of egg output per hen on an annual basis is unmistakable. Analysts estimate the average national egg output could raise to as much as 236 per hen by the end of this year—three more than in 1975 and 18 more than in 1970 (Continued on page 12)

THE MACARONI JOURNAL



DiAgostino, of 1, cooking and cookbook fame, serves up proof-packed pasta at Minneapolis' popular Sammy D's restaurant.

## The proof is in the pasta!

If it looks good and tastes good. That's good pasta! But good pasta requires good products. Like Amber's Venezia No. 1 Semolina, Imperia Durum Granular, or Crestal Fancy Durum Patent flour.

Thanks to uniform high quality, color and granulation, these ingredients make your pasta operations run more smoothly.

Amber works exclusively with the finest durum wheat grown by farmers of the northern plains. And Amber grinds this fine durum in its modern efficient mill.

And Amber serves you right...by matching your specs and by shipping when promised. And the consumer gets a break, too, because the proof is in the eating. Call Amber now for your own proof.

AMBER MILLING DIVISION of THE GRAIN TERMINAL ASSOCIATION

Mills at Rush City, Minn. • General Offices at St. Paul, Minn. 55165/Phone (612) 646-9413



## Hen Productivity Increases

(Continued from page 10)

years ago. "Each year we think the national average has probably reached its peak," an Agriculture Department statistician says, "but it just keeps inching upward on us."

Most observers agree that increased productivity is mainly the result of genetic research and improvements. A chick is hatched with all the egg-producing equipment it will use in a lifetime. "The name of the game," one researcher says, "is getting that bird to make the most of what she's got."

Increasing use of sophisticated flock-management techniques such as caging birds in insulated buildings rather than letting them run around the hen-house floor also has helped increase output, experts say. "More than 250 eggs (per hen) in a 12-month period isn't uncommon under modern conditions," a researcher says.

Analysts expect the rate of lay to continue increasing steadily at 1.5% to 2% annually. "I wouldn't even hazard a guess as to how long we can keep the rate climbing," a researcher says, "but so far, there are no signs of leveling off."

The increasing rate of lay means farmers probably will have to keep trimming their flocks to maintain a balance of supply with demand. "As long as layers produce more and more eggs," says John Pederson, vice president of United Egg Producers, an Atlanta-based cooperative, "we'll need fewer hens, fewer chicks and fewer eggs going into incubators."

## Peavey Improves Hastings Mill

Peavey Company has begun a major modernization project at its Hastings, Minn., flour mill, increasing wheat flour production by 3,200 cwt to a total daily capacity of 13,000 cwt.

Mark W. K. Heffelfinger, group vice-president for Peavey's Industrial Foods Group, said the project will include construction of a new concrete mill containing one whole wheat, one rye and two hard wheat flour production units.

All new milling equipment will be installed, Mr. Heffelfinger said. Other new buildings will house new packaging lines, facilities for bulk loading of flour and expanded warehouse space. A new office and quality control laboratory are also included.

"Production operations and our ability to serve customers will proceed without interruption while the rebuilding program progresses," Mr. Heffelfinger said.

The new mill buildings will adjoin the recently-constructed durum milling unit at Hastings with the 200 persons currently employed at the mill also staffing the new operations.

The Hastings project, Mr. Heffelfinger pointed out, continues an extensive program of upgrading and modernizing Peavey mill facilities. Modernization projects at Denver, Colo., and Billings, Mont., mills were completed in the fiscal year ended July 31, 1975; operating improvements are now in progress at the Superior, Wisc., mill.

Other Peavey mills are located at Alton, Ill.; Buffalo, N.Y.; Denver, Ogdon and Salt Lake City, Utah. The company's total daily milling capacity currently is 95,000 cwt.

Engineering design for the project was handled by Conkey & Associates, Inc., Minneapolis, and Peavey Company engineers. The first phase of construction is now out for bids.

## Multifoods Reorganization

International Multifoods has announced the reorganization of its Industrial Foods Division. As of October 4, all division activities have been aligned under sales, marketing and production departments.

Heading the departments as division vice presidents are William B. Deatrick, marketing; Theodore C. Rugland, sales and Alan D. Ritacco, production.

Deatrick will continue to be in charge of all division marketing activities and, in addition, will direct the millfeed, export and bakery equipment operations.

Rugland assumes responsibility for the sale of all division products, and Ritacco will take on the added production responsibility for Bakery Mix plants.

Multifoods' Industrial Foods Division markets basic ingredients to the food industry for further processing. Among its products are flour and mixes for the baking industry and durum products for pasta manufacturers.

## ADM

Net earnings of Archer Daniels Midland Co. in the first quarter ended

Sept. 30 totaled \$15,540,000

equal to 53¢ per share on the common stock. Earnings of ADM in the first quarter a year ago totaled \$13,782,476, or 52¢ per share, on 26,580,518 shares outstanding, adjusted for a three-for-two stock split in December 1975. Average shares in quarter ended Sept. 30 were 29,524,057.

Provisions for federal and state income taxes for the first three months of the current fiscal year were \$10,087,000, compared with \$12,855,000

## A & P Improvement

Sales and net earnings of the Great Atlantic & Pacific Tea Co., Inc. for both the second quarter and first half of its current fiscal year exceeded levels for comparable periods a year earlier.

For the quarter ended Aug. 31, A.&P. recorded net earnings of \$10,682,000, or 43¢ per share on the common stock, compared with income of \$3,848,000, or 16¢ per share, in the second quarter of the previous fiscal year. Year-earlier earnings reflected a loss from operations of \$13.3 million after settlement of an antitrust suit, reduction in the company's facilities closing reserve and an adjustment of deferred taxes, the company said.

Sales for the quarter came to \$1,789,063,000, an increase of 14% from volume of \$1,569,652,000 for the same period a year earlier.

## Profit Gap

Here is a generation gap you don't hear too much about.

William de Lancey, president of Republic Steel Corp., points out that the value of profit dollars is declining and that a "new generation" of profit is needed.

He explains: "In both 1964 and 1975, we produced and sold the same tonnage of steel. We made the same profit in both years—\$1 million. What did not stay the same was the value of those dollars."

That \$72 million, he said, will be only as much plant and equipment as \$30 million in 1964.

## Guido Tanzi

Guido Tanzi, 83-year-old die maker in Niles, Illinois, died November 3. Bert Fania and Frank Blatnick will continue the business.



# 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.

4850 West 108th Street, Shawnee Mission, Kansas 66211  
Phone (913) 381-7400

## Canadian Grain Commission Research Laboratory Report on 1975 Amber Durum Wheat

by G. N. Irvine, Director

**Mixing Studies.** Mixing studies of spaghetti doughs in a restricted volume of a farinograph mixer were reported last year under the heading *Rheology of Extrusion*. Measurement of tolerance index, however, is difficult when peak viscosity reaches 900 to 1000 B.U. because of the curvilinear nature of the recording system of the farinograph. If the farinograph curve is lowered by adding counterweights to the lever arm, the tolerance index changes. To overcome this deficiency, a strain gauge was attached to the farinograph to measure the torque on the dynamometer and the resulting mixing curve was recorded on an ordinary recorder. "Farinograms" from this system are linear so that tolerance is not affected by the height of the curve.

Since mixing in a fixed volume is somewhat analogous to dough in an extrusion worm, an attempt was made to apply a vacuum to the restricted volume system for processing into spaghetti. A good vacuum cannot yet be applied so that spaghetti quality is poor because of air bubbles.

With the strain gauge recording system, the effect of mixing speed and temperature was studied. Increasing the temperature from 30 to 50° C. lowers the maximum consistency, reduces band width and slightly increases tolerance index. Lowering the mixing speed from the normal 59 r.p.m. to 20 r.p.m. only lowers the maximum consistency. Time to reach maximum consistency and tolerance index are not affected. Spaghetti processed with a mixing speed of 21 r.p.m. was poorer in cooking quality than that processed at normal speed. It has been assumed that when a peak is reached on a farinogram, the dough is developed. However, it would appear that for low absorption doughs the concept of dough development must be reassessed.

**Spaghetti Making Quality of Durum Wheats at Various Stages of Maturity.** The spaghetti making quality of flour milled from three durum wheat varieties grown at Glenlea, Manitoba, in 1975 was determined at intervals during the last three weeks of kernel development. Yellow pig-

ment levels declined rapidly during this period for all three varieties. The most immature samples, however, tended to be brownish and dull. Cooking quality improved greatly for all three varieties up to one week before maturity. This increase in cooking quality could be explained in part by the marked changes which occurred in the nature of the flour proteins during kernel development.

**Changes in Physical and Chemical Properties of Semolina During Spaghetti Making.** Semolina from the durum wheat varieties Mindum and Wascana and farina from the red spring wheat varieties Neepawa and Thatcher were processed into spaghetti on the Demaco extrusion press. Samples were taken at various stages of processing and examined for changes in their physical and chemical properties. Pigment loss occurred mainly during the early stages of drying, although some loss was detected as the dough passed along the worm. There was a slight loss of sulfhydryl groups prior to extrusion and a very large loss during the first eleven hours of drying. No significant change occurred in the amount of disulfide bonds present in the dough during processing. Exhaustive extraction of protein with dilute acetic acid revealed that the protein in spaghetti was less soluble than that of the semolina. This work is continuing.

**Amylograph Viscosity and Pasta Quality.** Amylograph viscosity is an important factor in the processing of noodles from low protein soft wheat flour but its importance in the processing of spaghetti from durum wheat semolina is not clearly defined. If high amylograph viscosity is desirable, then salt should improve spaghetti quality: the amylograph viscosity of semolina was increased by 200 B.U. by the addition of 2% salt (semolina basis). On the other hand a level of 2% salt in spaghetti processed from either Stewart 63 or Wakooma semolina caused the cooked spaghetti to be softer. In a number of samples with sprout damage (ranging from 4.5 to 45%) where amylograph viscosity ranged from 0 to 90 B.U., cooking quality was not markedly affected. There is apparently no correlation between amylograph viscosity and cooking quality

of the varieties presently in the durum wheat plant breeding program.

**Factors Affecting Cooking Quality.** Gluten quality has been assumed to be of prime importance in spaghetti quality. However, gluten quality assessed in terms of gluten strength, the Berliner turbidity test and farinograph mixing characteristics is not highly correlated with our parameters of cooking quality. Of the varieties in the plant breeding program, there have been some with good gluten quality but mediocre cooking quality and conversely some with mediocre gluten quality but good cooking quality. Thus, gluten quality per se does not indicate good cooking quality. An extensive study is now underway to investigate as many factors as possible that may be related to end product quality—factors such as time of mixing, conditions of mixing, dough development, conditions of drying the spaghetti, the quality and composition of starch.

## TV Campaign in Britain

Britain's first major television campaign in support of dry pasta sales is bringing handsome returns.

Pasta Foods, spending £100,000 in promoting their Record brand to family audiences, report an uplift of 30 per cent in volume sales as compared with an equivalent period of last year.

"The uplift in demand and the maintenance of that demand is unique in our industry", says sales director Miles Seddon. "While it is hard to determine how much of the increase is directly due to the campaign and how much to the shortage and high price of potatoes, it is quite obvious that our television advertising is hitting people at just the right moment. They were looking for an alternative to potatoes and we have provided the answer. The maintenance of demand and right through an unusually hot summer also suggests that the pasta habit is well established. If it's like this summer, what is demand going to be in winter?"

## European Tour

N.M.M.A. is planning a macaroni plant tour in October, 1977. N.M.M.A. plans to attend IPACK-IMA in Milan to attend IPACK-IMA with trips to Genoa, Venice and Parma, or 21 days in all through the continent.

## Pointers on Pasta Prices in Britain

from the Pasta Post

The moving fingers of world events and of international trading agreements have indeed given cause for immense reserves of wit and skill on the part of those who are charged with keeping the price of pasta on an even, British, keel. Since mid-1973 the 'buffets of outrageous fortune'—mostly man-made—have made of it an Herculean task. It was at that time that the Russians, virtually wheatless, swooped on the North American market and completely upset grain buying patterns. Prices for durum wheat, the raw material of quality pasta, skyrocketed, as did those for other grains, including animal feeds. Very soon afterwards the effect was felt at retail level, first in the price of meats and then in bread and almost all processed foods.

Happily, durum prices began to fall again towards the end of '73 and continued downwards until August 1975 when a further world market scare shot them back very nearly to the peak level of '73.

However, even though these were dramatic events, they were well within the skill and experience of established grain buyers. What was new was Britain's membership of the European Economic Community. That changed the rules to the extent that actual world market prices no longer bore any relation to the prices to be paid by member countries.

## Common Agriculture Policy

Under the terms of the Common Agriculture Policy, members must pay a levy on imports of foodstuffs from outside the Community, if such foodstuffs are available from within the Community at a lower price. This applies to durum wheat, even though the quality of North American durum is superior to most of that available in Europe.

However, because Britain is a relative newcomer to the E.E.C., she has a period of grace to adjust to the system. This, in the jargon of Europe, means she can, until January 1978, claim Accessionary Compensatory amounts to offset the levy—in part in whole according to circumstances (1)

In practical terms this means (if you are still with us) that up until August '75, the world market price for durum was sufficiently low to attract a levy within the E.E.C. On the other hand, Britain qualified for A.C.A.s that neutralised the levy. R. H. Clarke, of Gt. Yarmouth, an associate company of Pasta Foods that buys durum wheat, mills it into semolina and sells it on to Pasta Foods to make spaghetti, macaroni and the rest, rightly deduced that in these circumstances (remember, the world market was still falling) it could delay purchases of durum, take advantage of dropping prices and still not pay a higher levy. This worked because dollar prices c.i.f. Rotterdam relate to the delivery situation ruling some two months after quotation.

## Play a Hunch

When prices shot up again in the summer of '75, Clarke again played a hunch. They reckoned the rise would not continue. They shortened their cover from the usual 2½-3 months to six weeks and waited for prices to drop back. It worked—and again the pasta price was saved.

In effect, at this time Clarke's buyers were on familiar ground—working with world market prices and disregarding the plusses and minuses of E.E.C. procedures. But then prices began to fall close to the level to be tolerated by the Community and by December '75 there was the clear threat of levies.

Clarke, however, seized on the fact that under E.E.C. regulations it was possible to book forward 60 days, with the levy fixed at the date of booking rather than at the time of purchase. With the help of their shippers, they obtained very substantial quantities of durum without having to pay any of the newly imposed levy.

Pasta prices were preserved yet again. Then the net was tightened. New C.A.P. provisions limited the fixing of levies more than 30 days in advance, so that the grain buyer can no longer play off world wheat prices against levies to any significant degree. He is locked into the system. Whatever his skill as a buyer in the free market, the ultimate price of his purchases will henceforth be largely governed by the amount of levy payable at any given moment in time.

Britain's payments are, of course,

still alleviated by A.C.A.s until January 1978—or until the men at Clarke's can think up another wheeze.

## Prudence and Pasta

from Pasta Post

Pasta figures firmly in the 'Prudent Diet' because of its high vegetable protein content and it is noted that there is a lower incidence of heart disease among Neapolitans, who have given their name to the onion-and-tomato and entirely vegetable sauce, than among the citizens of Bologna, who add minced meat to make Spaghetti Bolognese.

Spaghetti Neapolitan consists of onion fried in vegetable oil—olive oil if you are genuinely affluent—with added tomatoes. Other vegetables, such as carrots, can be included to provide extra body and variety of texture and lentils will supplement the protein provided by a good quality spaghetti or macaroni.

Soups are also advised, both in main meals and as light snacks, again using noodles to obtain adequate protein without recourse to the over-use of meats which, apart from the obvious fat, also contain some 20 per cent of 'invisible fats'.

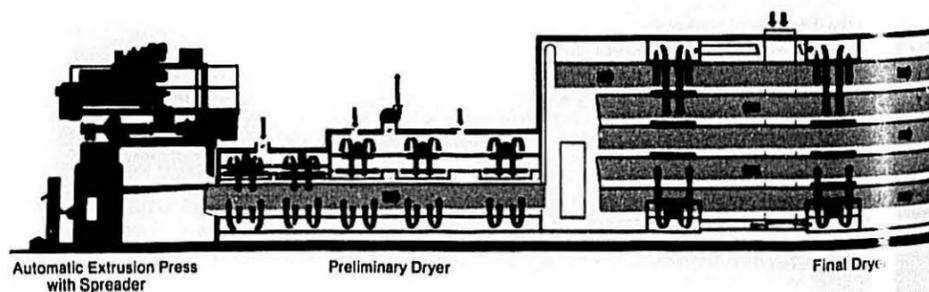
The burden of the argument in favour of prudent eating as a means to reduce the risk of cancer lies not only in the apparent link between a high animal fat diet and the disease, but also in the fact that many vegetables stimulate the growth of enzymes within the body that are actively hostile to cancer-causing chemicals.

And while one is eating vegetables, one is not eating fat.

## Australian Drought

As a result of severe drought, even though broken by recent rains, Australia's 1976-77 wheat crop prospect falls 4 million to 5 million tonnes short of early optimistic forecasts, according to Harlan J. Dirks, U.S. agricultural attache in Canberra. In a report to Foreign Agricultural Service, Mr. Dirks, said that Australia's wheat crop will probably not be much more than 8 million tonnes, contrasted with early forecasts of 12-13 million tonnes. A crop of that size would be about 3.5 million tonnes under the 1972-73 crop of 6.6 million.

# ATR: The hotter, faster, cleaner dryer.



**Braibanti** corporation

60 EAST 42ND STREET-SUITE 2040 • NEW YORK N. Y. 10017

PHONE (212) 682.6407-682.6408 • TELEX 12-6797 BRANY

Drastically 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 pacesetter Pasta Dryers.

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



Plate Counts Slashed.



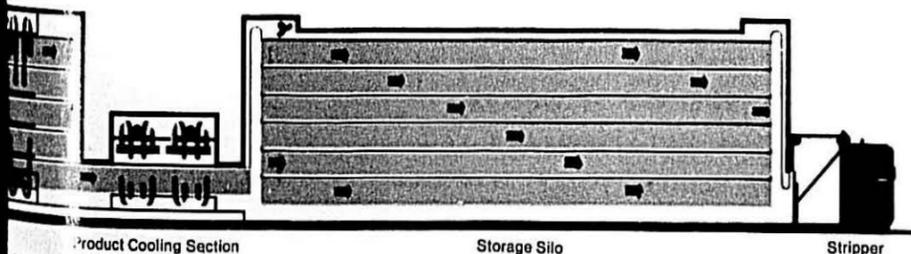
Side Panels Open for Easier Cleaning Lock Tight to Conserve Energy.



Cooking Qualities Improved. Stickiness Eliminated



Drying Time Chopped.



# Braibanti

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

## Taking Stock

At the Annual Meeting following an audio-visual presentation of "200 Slices" by the Sosland Publishing Company, graphically demonstrating the course of history in the Grain Trade in the past 200 years, macaroni manufacturers gathered in round-table discussions by regional groups to take stock.

Paul A. Vermynen, president of A. Zerega's Sons, Inc., of Fair Lawn, New Jersey (oldest commercial macaroni manufacturer in the United States) and a Vice President of N.M.M.A., summarized the discussion of his group, which was typical of all of the round-tables. His comments follow.

Insofar as family life is concerned in the last twenty years, the role of women has been a positive factor. We think the role of children has been recognized as an important factor of family life. We have done a great deal to instill in them a confidence in their own abilities and in the part that they can play in our nation.

### In Our Businesses

Insofar as our businesses are concerned, we think that we have moved from primarily a production orientation to a marketing orientation and we think that this is progress.

We think that we have improved our awareness of the role that we should play insofar as the public is concerned and we think that (despite the fact that there are differences of opinion on this point) we have managed to improve the corporate image generally. Working hours have generally been reduced—although there were a few people who had not noticed this personally. We think we have made progress in encouraging the younger generation to enter into industry. We think that the Macaroni Association has made an important contribution to the growth of our industry, which was leaned on quite heavily. One of our members made the statement that macaroni has moved from the role of an ethnic food to become a basic food, which, of course, sets the stage for tremendous progress for the future. We think we have been successful in improving our image with our customers and this has been done through an awareness and use of means of communication



Paul Vermynen

and also the good work of the publicity of our Association.

### In the Community

Insofar as the community is concerned—we think that we have recognized the part that environmental factors play in community life and we have done a good deal of work in improving our role in that area. We are making progress in reporting on nutritional information, getting this form of information across to the consumer, but this is only a beginning with much more to be done. We have made improvements in integrating minorities into our companies and I doubt that there are many of us who have not made progress in this area.

Despite excessive self-criticism to which our nation and we, as individuals, seem to have fallen prey, we have played a part, generally, in improving the quality of life. That's a statement I don't understand myself.

### In the Nation

Insofar as the nation is concerned, the feeling was that as an aftermath to Watergate we have proved to ourselves that our system can and does work. We feel that it has awakened our personal awareness of the part we must play in preserving our freedom and our way of life. We think that in the economic system particularly we seem to have evidence that it does work and we have a great deal of confidence that it will work in the future. We feel, insofar as the nation is concerned, that improving our re-

lations with China has set the stage for future progress. We think that, insofar as the past is concerned, that was an important plus. We think that we have made a lot of progress as a nation in understanding the universe and the implications it can have for our future life. We think we have learned to respect the necessity to become energy self-sufficient but we have only begun to recognize the problem. Major companies have made important steps in starting to make provisions for this in the future, but there is more progress to be made than we have made in the past. We think we have made progress as a nation in learning to restrain our population growth. We feel the growth in absolute numbers, however, continues high which is a factor that we will have to take into account insofar as the problems it may raise that it also provides many opportunities for us in the future.

We think we have made, as a nation, important progress in the area of cereal grains, the quality, quantity and the free market forces that are now brought into play. We think we made important progress in productivity in cereal grains and minimizing of infestation at all levels.

We think we have made progress in medical research; a tremendous amount of progress in computers that, of course, have changed our lives. As a nation, progress in the environmental field, transportation (with the exception of railroads), continuation of our national highway system, bulk handling, progress in food technology. Education opportunities have been tailored more for the real needs of life.

The emergence of women is another thing that we, as a nation, feel we have made progress. There has been important acceleration to individual participation in sports and personal achievement in sports certainly has been high. Caliber of performance, generally, has been one of great interest.

We have made progress as a nation in providing for safety, the type of safety that OSHA promotes.

I will make my personal comment on the future because we really didn't get into that, but I would say that we concluded on a general note of optimism for the future.

# ROSSOTTI

The first name in Macaroni Packaging  
for over half a century.

Now associated with  
**THE A. L. GARBER COMPANY**

Established in 1896

with folding carton plants in Chicago, Illinois; Ashland, Ohio; Syracuse, New York; and Victory Mills, New York.

Sales Offices in New York City, Paramus, New Jersey; Syracuse, New York; Ashland, Ohio; Chicago, Illinois; Victory Mills, New York.

with complete Packaging and Designing Facilities



Charles C. Rossotti

**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

### St. Louis Proclamations

John Cimino, Sales Manager of American Beauty Macaroni Company in St. Louis, and Louis S. Vagnino, retired executive with over fifty years in active management in the company, were successful in having Mr. Gene McNary, Supervisor of St. Louis County and Mayor John H. Poelker, Mayor of the city of St. Louis, to proclaim National Macaroni Week.

The proclamation stated: "Whereas, the United States of America, in celebrating its bicentennial through remembrances of events, large and small, surrounding the American Revolution, recognizes the importance of food in its history and lore;

"and Whereas, the most common musical theme associated with that period, 'Yankee Doodle,' mentions in its final line that Yankee Doodle 'stuck a feather in his hat and called it 'Macaroni'" refers to the English slang usage of the word macaroni to signify perfection and elegance;

"and Whereas, today, macaroni still represents wholesome value in the tradition of American cooking;

"Now, Therefore, I, John H. Poelker, Mayor of the City of Saint Louis, do hereby proclaim the week of October 7 through October 16, 1976, as National Macaroni Week in the city of Saint Louis."

### Rice-A-Roni on Cooking School Tour

Crowds of happy homemakers, tasty dishes, valuable door prizes and free gift bags are a few of the ingredients which make the Southern Kitchens Cooking School one of the country's biggest food promotions.

As the successful Cooking School resumes its tour of the South this fall, Rice-A-Roni once again is a participant. On stage cooking demonstrations of Rice-A-Roni together with new recipes featuring this popular rice mix are among the highlights of the program.

In each community visited, the Southern Kitchens Cooking School is co-sponsored by a local newspaper or broadcast station and is widely publicized. Local merchants and supermarkets tie-in and auditorium from East Coast to Texas are filled to overflowing.

The traveling school has visited nearly 100 communities. Forty-eight



Left to right: Louis S. Vagnino, Mayor John Poelker and John Cimino.

additional cities and towns are on the fall schedule according to Thomas DeDomenico, Vice President and Sales Manager for Golden Grain Macaroni Co., maker of Rice-A-Roni. This is Rice-A-Roni's second season as a participant.

### Potato Board Advertising

The Potato Board continues its campaign to win over dieters in the coming months with ads in women's magazines totaling over 36 million circulation.

Ads stressing the potato's nutritional and dietary value are appearing in October Good Housekeeping, McCall's, Woman's Day, Weight Watchers and Grit. Ads will follow in November Family Circle and Southern Living, and December Ladies Home Journal, Redbook, Family Health, Sunset and Essence.

In addition, the Board has initiated a national network radio campaign



stressing the low prices of potatoes currently being caused by the industry's record Fall production. Sixty-second spots in three networks for three weeks during September have encouraged consumers to take advantage of the exceptional value offered by potatoes currently.

Public relations has tied into this unique effort with special mailgrams to editors across the country, plus alerts to supermarket home economists, and news releases for radio, newspapers and television.

The Potato Board intends to repeat this three-week effort later this Fall if the price/supply situation warrants it.

### Prima Salsa

The introduction of Hunt's Prima Salsa Spaghetti Sauce looks like the beginning of a major success story, reports Hunt-Wesson Foods, the California-based company that introduced the brand in August after a successful one-year test market in upstate New York and Southern Ohio.

While it is too early to measure progress of Hunt's Prima Salsa in terms of market share, the company is highly encouraged with the initial trade response. "In many areas, virtually every account has taken the entire six-item line," a company spokesman said. "The general consensus is that the total product introduction is one of the most thorough the trade has seen."

### Heavy Advertising

Advertising for Hunt's Prima Salsa began in late September with heavy levels of spot and network television and national print efforts in six magazines. Couponing activity began in October with a roughly five million newspaper coupons. Thirty million magazine coupons are scheduled for November.

Television advertising for Hunt's Prima Salsa features the "Spaghetti Wagon" and actual taste comparisons between Hunt's Prima Salsa and the regular Ragu line.

In addition to the advertising and promotion, Hunt's Prima Salsa will be supported by a major two-part public relations effort. Phase one will consist of spaghetti-eating contests held in large shopping centers across the country. The second phase will consist of a Hunt's Prima Salsa travel

representative who will meet with key newspaper food editors and appear on local TV and radio programs.

The product is available in three flavors—Regular, Meat Flavored, and with Mushrooms—and all flavors can be used as a base to which meat, mushrooms, onions, cheese, peppers, and many other ingredients can be added for variety.

### Kraft Dinners

Kraft Foods suggests that consumers team Macaroni & Cheese Deluxe Dinner with breaded fish sticks and tartar sauce for a hearty meal that's as economical as it is delicious. "How to eat well between paydays" is the headline of the full page color ad appearing in November Family Circle—one of eleven national magazine ads scheduled for November and December.

### Push Pasta

National Macaroni Institute advertising to grocers in Supermarket News says:

Related Sales Idea No. 3—Holidays or Pasta Days.

Macaroni Products go with: Chicken, Turkey, Beef, Ham

Push Pasta and Profit! Related Sales Idea No. 4

January "Push Pasta for Budget Meals Month."

Feature your stores: Pot Roast and Egg Noodles, Short ribs and Macaroni, Spaghetti and Meatballs, Push Pasta and Profit!

### Christmas Helps

Family Circle's new edition of "Helps" pictures a pasta front cover. The 15th annual holiday publication has 144 pages, 48 in full color. The guide contains over 200 gifts to sew, knit, bake, and glue decorations for doors, walls, trees, mantles and tables; holiday recipes with old time goodness. Cover price is \$1.35 (in Canada, \$1.50).

N.M.M.A. Winter Meeting Boca Raton, Florida, Feb. 9-13

DECEMBER, 1976



Norb Bialek supervises collection of soup noodles as they come off the conveyor following the drying process.

### Stouffer's Sresses Prices

Economy is the message of full-page color advertising for Stouffer's frozen prepared foods in Family Circle for November. Four main dishes—Macaroni and Beef, Chili con Carne, Creamed Chicken, and Tuna Noodle Casserole—are available for "about a dollar a serving, or less."

### Efficient Material Handling At Mrs. Grass Plant

Making noodles is big business at Mrs. Grass, Inc., in Bellwood, Illinois. And, as in any food plant, sanitary, economical handling of materials is vital.

President Grant Law believes that his plant manager, Wylie Hargrove, has found a more efficient device for handling soup noodles, one of his company's products. He is using steel RimLift hopper bins from U.S. Steel Products Division to collect, transport and store noodles until they are fed into hoppers supplying the packaging lines.

"What it boils down to," said Law, "is that we have less material handling since we began using RimLift bins."

"We had been using 34-inch by 34-inch by 17-inch corrugated containers to collect and store our soup noodles until we were ready for them on the packaging lines," he said. "But we found that we needed to transport, cut open and dispose of nine corru-

gated containers just to keep one of our three packaging lines operating for an eight-hour shift.

"Now, with RimLift bins, we need only two filled bins to keep the same line operating for a full shift," he said.

### Galvanized Steel Bins

To avoid possible contamination of contents, the 18-gage galvanized steel bins have interiors and box beam bases unpainted. As an added precaution, blind rivets were used.

Each bin, 57 1/2-inches high, is used to collect 1,600 pounds of soup noodles as they come off the conveyor following the drying process. Noodle-filled bins are transported to the second floor of the 125,000-square-foot plant where they are stored until ready for packaging. Steel-reinforced plastic lids with a load limit of 6,000 pounds cover the bins, providing a base for stacking filled bins two high to save warehouse space.

A patch of green chalkboard-type paint, added to the bins after they reach the Mrs. Grass plant, provides a space for workers to label each filled bin after storing.

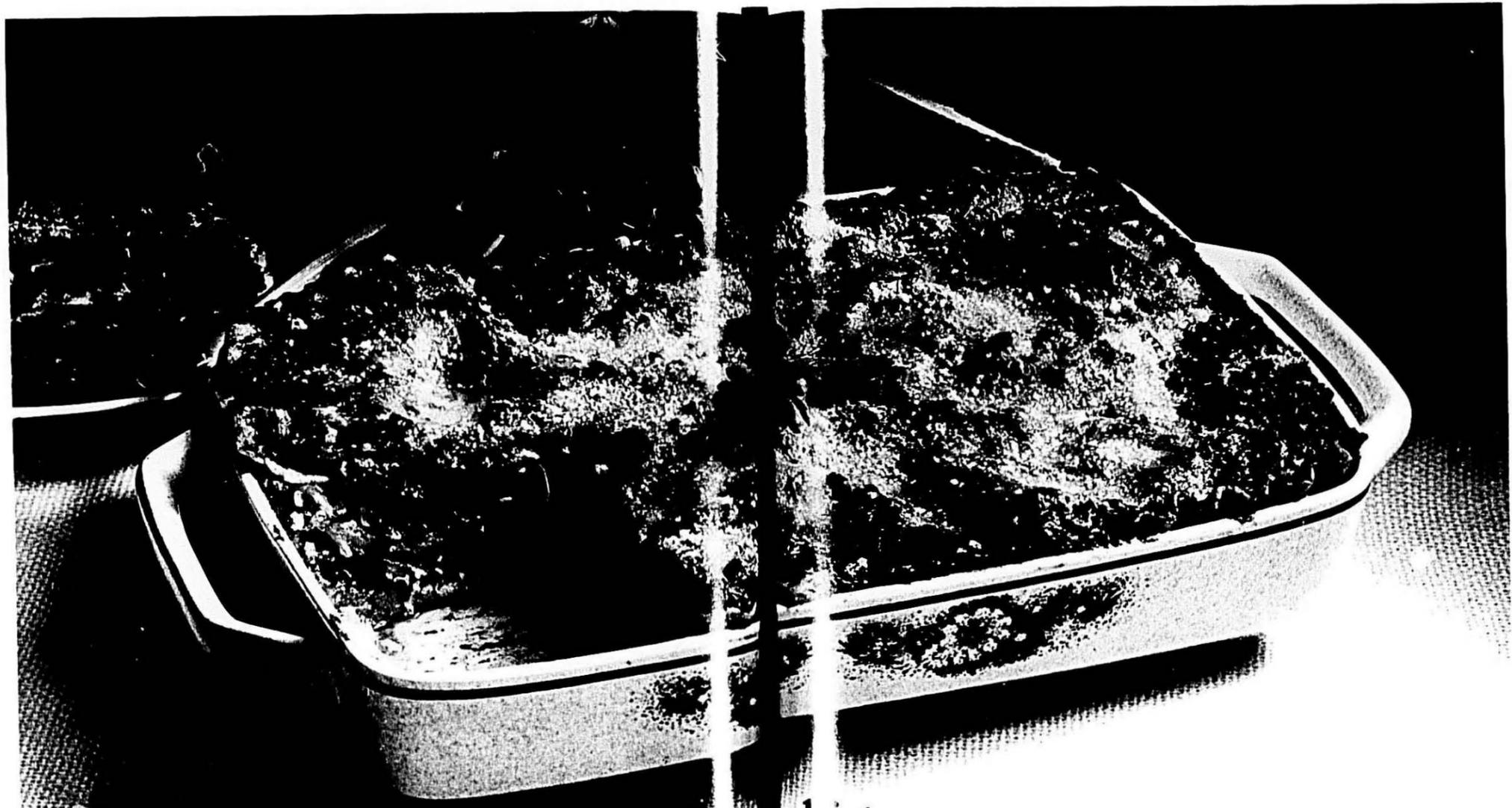
Law noted that RimLift bins provide a better storage unit than corrugated containers, and are easily cleaned for re-use, eliminating the additional cost of disposing of used corrugated containers.

A four-by-eight-inch optional box beam base enables workers to transport the bins with a hand truck or a forklift with either two or three-inch forks. Filled bins are positioned on a steel frame platform above the feed hoppers which supply up to three packaging lines on the floor below.

Two sizes of soup noodles collected and stored in the bins discharge easily through a ten-inch slide-gate opening in the bin's hopper bottom. As the supply of noodles in the feed hopper dwindles, a worker simply pulls the handle operating the steel slide-gate, discharging the amount of noodle product needed to refill the feed hopper below.

"Even if we have all packaging lines operating at once, we only need one worker upstairs to oversee the filling operation," said Law.

Back in 1912, it would have taken Sophie Grass about eight months to make enough noodles to fill one RimLift hopper bin. Today, in the modern and sanitary plant named for her, it takes less than an hour.



**For luscious lasagna today and tomorrow the secret is pasta made from Peavey's fine Semolina and Durum flours.**

At Peavey, there's a longstanding tradition of research that helps make our products perform a little better for you. In Semolina production we take great

pains in crop selection and so we can consistently offer you Semolina of bright color and uniform quality. Combining our wealth of experience with the latest in technology, all Peavey mills have now been upgraded to automatic operations utilizing up-to-date minute equipment that's unsurpassed in our industry. All so we can manufacture the best Semolina and Durum flour available today.

ing of...  
For in...

at's another Peavey tradition, we share our expertise and our miniature macaroni press and dryer operation with customers working on new product ideas. Peavey Technology. Continuously probing the future to

get better results for you today. For better lasagna results drop us a line and one of our specialists will contact you.

**Peavey**

**Industrial Foods Group**  
Peavey Company Sales Offices: Minneapolis, Minn. (612) 370-7840 • White Plains, New York (914) 694-8733 • Chicago, Ill. (312) 631-2700

## The Energy Crisis

by Dr. Ralph E. Lapp,  
Energy/Nuclear Consultant and  
Senior Member of Quadi-Science, Inc.

Americans find it rather difficult to believe that there really is an energy crisis. Until recently, a bountiful supply was always there for the taking. In Abraham Lincoln's day, the U.S. prime fuel was wood and the nation's heat and energy came largely from the toil of woodcutters. There were no energy planners in Civil War days but the nation was gradually awakening to the fact that fuels besides wood were of growing importance to the economy. Whale oil, highly valued for its use in lamps, at one time sold for \$3 a gallon. It was displaced by cheaper coal oil. The dimly-lit era of U.S. history more than a century ago represented what by today's standards would be called a low-energy way of life, yet, as we shall see, it is an energy standard that will not be surpassed by billions of people living in the 21st century.

### Mid-East Oil

In October 1973, oil from the Persian Gulf shot up from its accustomed \$3 per barrel price and tripled within a few months and, even without curtailment of this supply, industrialized nations became acutely aware of their dependence on petroleum. Millions of Americans spent weary hours in long gas lines and fuel charges shocked millions more as they paid record amounts for electricity and heating. But when oil flow resumed and gas lines vanished, most Americans forgot about the energy crisis and as Mike McCormack, the Congressman most experienced in energy matters, observed: "One of the most dangerous aspects of the energy crisis is that a large portion of our fellow citizens do not understand it. Indeed, a surprising portion of Americans deny that an energy crisis exists, and many who do, believe that it has been contrived by evil powers which could easily and quickly undo their nefarious deeds; that is, solve the energy crisis by magic."

Over two decades ago, an official government body, the Paley Commission on Material Policy, studied U.S. resources and reported to the President that certain energy supplies

would run short well before the end of the century. A U.S. National Academy of Sciences task force of experts re-examined the U.S. resource picture and warned in 1962 that oil and natural gas would be unable to meet future demand and predicted shortages of these vital fluids. The official reports were discredited probably because most Americans are guided by a pioneer psychology that assumes the nation will never run short of anything.

As this book will hammer home, the pump-out of our premium fuels, oil and natural gas, means that we must shift to solid fuels, primarily coal and uranium. This shift from liquids and gases to solids is of profound significance to the U.S. energy economy. Instead of drilling and pumping our fuels, we must dig, blast and haul fuel from the earth's crust. In the following, I will attempt to assess the real implications for American life in this radical transformation of our energy supply.

### A Brief Energy History

Some common denominator has to be introduced in order to compare the energy value of the various fuels; we shall use the Btu which stands for British thermal unit. It is simply the amount of heat required to raise the temperature of one pound of water by one degree Fahrenheit. A pound of high quality coal burns to release about 13,000 Btu. A backward look at the U.S. fuel statistics show that in 1900 the nation burned up the following quantities of combustibles:

Coal	6.840 quadrillion Btu
Wood	2.015
Natural gas	.252
Oil	.229
Total	9.336 quadrillion Btu

The quadrillion Btu unit is symbolized by q and is equal to energy released by burning 40 million tons of coal. Using this energy yardstick, it is easy to multiply 9.33q by 40 million and get 373 million tons of coal as the total energy equivalent for all fuels burned by the U.S. in the year 1900.

There were 76 million Americans living in the year 1900 so that each citizen consumed the equivalent of almost 5 tons of coal as energy per

year. More precisely, the per capita consumption of energy in 1900 was 123 million Btu/year. To be even more precise, we should add in an additional increment of energy coming from water power, but this was rather small and we shall omit hydro-power's contribution and concentrate on the burnable fuels. It is pertinent to note for later reference that federal statistics on "prime movers" in the U.S. energy economy list, for the year 1900, contributions from wind power and sailing vessels and show that farm animals powered our agriculture.

### Three Quarters of a Century

Let's jump from 1900 to 1974, the last year for which statistics on fuel consumption are fully available and set down the U.S. data:

Oil	33.5q
Natural gas	22.2
Coal	13.2
Hydropower	3.0
Nuclear power	1.2
Total	73.1q

In other words over the course of three-quarters of a century, U.S. use of energy has increased almost eight-fold. Our population has not quite tripled in this time span so that the per capita use of energy has not quite tripled. I personally find it surprising that the per capita consumption of energy has increased by such a relatively small factor, but I think this is because I have such graphic impressions of the change in my life style. As I recount in the Post Script, I recall shoveling coal for our home furnace and I remember the great day when an electric refrigerator replaced our ice box; in fact, I even remember that meals were prepared on a coal stove which gave way to a gas stove. Our first family car made its appearance in 1925 and the Lapp family began its upward climb on the energy consumption curve.

### Present Day Usage

If I look at my own family's energy use today, it is very much greater than that of my home half a century ago and larger than the nation's average. My house is much larger than that of my parents and it has four occupants rather than six as in my childhood. Yet the fuel inputs for my

(Continued on page 26)

THE MACARONI JOURNAL

# KNOW-HOW.

There is no substitute for the engineering expertise that comes with experience. Buhler has it. Over one hundred years experience in the design and operation of hundreds of modern, efficient macaroni plants and machines in practically every country of the world where macaroni is made.

- Single screw presses from 800-4000 lbs./hr.
- Double screw presses from 1200-8000 lbs./hr.
- Four screw presses up to 16,000 lbs./hr.
- Shaking pre-dryers for short goods
- Short goods belt dryers from 800-16,000 lbs./hr.
- Two-shaft spreaders and four-shaft spreaders
- Long goods dryers from 800-4000 lbs./hr.
- Long goods conveyors for one shift per day discharge
- Long goods rollers
- New material handling systems
- Complete production lines
- U.S.-made motors
- U.S.-made electrical controls
- U.S.-made climate controls
- Engineering services including design, planning and installation of complete macaroni processing plants

If it's anything to do with macaroni plants or equipment, talk to the experts at BUHLER-MIAG, INC., 8925 Wayzata Blvd., Minneapolis, Minn. 55426, (612) 545-1401/Eastern Sales Office: 580 Sylvan Ave., Englewood Cliffs, New Jersey 07632, (201) 871-0010/BUHLER-MIAG (Canada) LTD., Don Mills, Ontario, (416) 445-6910.

Complete Macaroni Plants by

# BUHLER-MIAG



These experienced Buhler-Miag engineers develop the complete processing system and make a careful selection of the machinery to produce their layout.



Four screw presses by Buhler-Miag are used in extreme dryness to produce long goods. The 16,000 lbs./hr. capacity screw press is shown.



Buhler designs, manufactures and installs all types of macaroni processing machinery. Above, world's largest short goods screw press (16,000 lbs./hr. capacity) shown in laboratory model shown in inset.

## The Energy Crisis

(Continued from page 24)

household are more than triple those of 50 years ago. On a per capita basis, each member of my family demands five times the energy used by my original family members. Much of this difference arises from the air conditioning load and the wide variety of electrical devices in my home today.

Looking outside the household walls, it's clear that transportation adds prominently to the family's energy use. Back in 1925 the touring car added about 50 percent to the Lapp family's energy demands. I never even dreamed of traveling by air in 1925, but in 1975 I estimate that my family accumulated 78,000 miles of air travel. Reckoning an average of 7,000 Btu per person per mile, I deduce that we burned up over half a billion Btus in air travel. Because I did most of the traveling, it becomes evident that I enjoy a rather high-energy life style. If one factors in the hidden energy demand I exercise in the industrial and commercial sector of the energy economy, then it is even clearer that my mode of living is much more energy-demanding than that of my father.

My reason for personalizing the matter of energy use is that I believe it essential to deal in more than national statistics. In the long run any restrictions on the supply of energy will have their impact on the life style of Americans. Nonetheless, it is useful to set down the national data on fuel use, especially in graphical form, so that we can appreciate the dramatic changes that have occurred in fuel use during the past 75 years.

## Energy Reporting Background

Back in 1974 when the Arabs squeezed off the oil supply and the energy crisis ensued, the U.S. Department of Commerce began steps to encourage energy conservation among industries. One of its first steps was to contact the various industry trade associations and encourage some sort of energy use reporting system.

Meanwhile Congress created the Federal Energy Administration (FEA) and, through the Energy Policy and Conservation Act, required FEA to get involved in industry energy conservation programs. Consequently,

there was divided authority between FEA and Commerce. Finally the two agencies concurred upon a "memorandum of agreement" outlining the responsibilities of each agency in directing and managing a voluntary energy conservation program for industry. FEA establishes basic policy goals and coordinates intergovernmental activities, while Commerce will develop the specifics of the programs and establish the working contacts with industry and industry groups.

## Ranking Users

So far FEA and Commerce have ranked the ten most energy consumptive industries in the U.S., by the number of trillion Btu's consumed in the year. Chemicals and Allied Products got the blue ribbon for consuming about 2,900 trillion Btu's a year. The list runs down to number ten, Textile Mill Products at 323 trillion Btu's a year. Our general category, Food and Kindred Products, ranks No. 6 with 959 trillion Btu's consumed a year.

Step two in the FEA/Commerce conservation effort is to identify, within the top ten energy consumptive industries, the 50 most energy consumptive corporations. The cutoff point is a trillion Btu's. In other words, any corporation within the Food and Kindred Products group which consumes in excess of a trillion Btu's will have to identify itself to FEA/Commerce. It will then be ranked with other food firms in descending order of consumption.

Once these domestic corporations are identified, energy efficiency targets will be established for the ten industries. For foods, FEA/Commerce might say, "based on 1972, we hope the industry will target itself to reduce consumption overall by 20 percent by 1980."

A mandatory reporting system then will be established to determine the progress made by each of the 50 identified firms toward meeting the efficiency target of its respective industry.

However, there will be provisions for exemptions: For example, if a firm is participating in an "adequate" conservation program within its respective trade association, then the firm will be exempt from the mandatory reporting requirements.

## Adequate Program?

The next question has to be, "What is an adequate program?" The government defines it as one in which:

- All necessary information is provided.
- Each corporation in the industry participates.
- Reports made to the association are made available in their entirety to FEA/Commerce.

FEA/Commerce now says the identified corporations must make their first report by January 1, 1977—unless exempted, reports must show:

1. Corporation progress in improving energy efficiency.
2. Information used to measure progress toward meeting the industry targets (yet to be established by FEA).

As far as NMMA is concerned, probably less than a couple of members—members who also produce other food products in addition to pasta—consume more than the trillion Btu's of energy that will make them subject to the initial, mandatory reporting. But more plants could be involved in the future if the reporting system is extended—as could be the case.

## Ombudsman

If you have had the feeling that one in the Federal government has been interested in the problems of the small businessman, fortunately, you're wrong. The U.S. Department of Commerce has set up an "Office of the Ombudsman," which provides small businesses with a conduit to government policy-makers so their opinions may be heard. In addition, the Ombudsman responds to inquiries and requests for assistance and counsels businessmen on policies and practices of government agencies and the economic impacts associated with laws which affect them. The major help distributors is in dealing with other Federal agencies. While the Ombudsman cannot represent individual companies in negotiations before other agencies, it does help a small business by finding the right man to handle problems in the proper agency—inside or outside the government. The address: Office of the Ombudsman, U.S. Department of Commerce, Washington, DC 20230—(202) 377-3178.

THE MACARONI JOURNAL

# A SEECO BIN STORAGE SYSTEMS

## BIN STORAGE

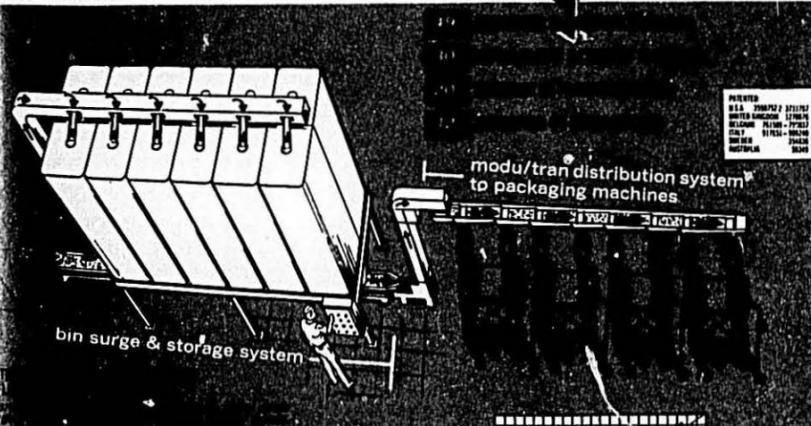
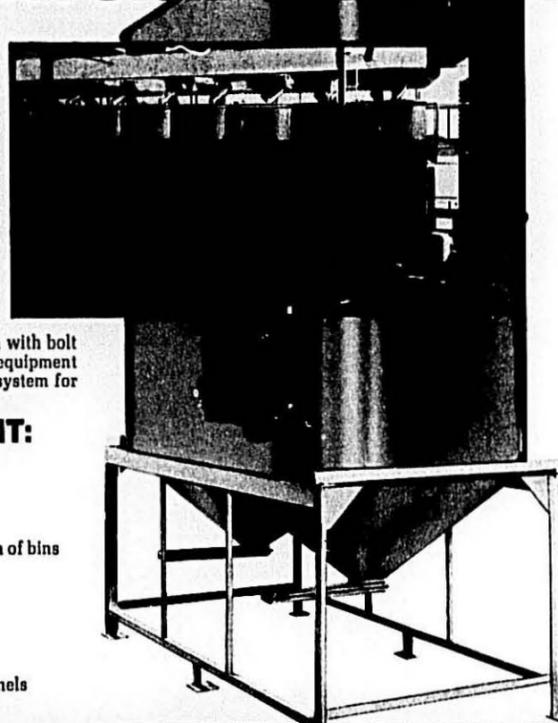
A fully automatic bin storage system for free flowing materials—Product is conveyed from processing into the Aseeco Bin Storage System by means of conveyors. The operator can fill any bin by operating a selector switch at floor level. In a few hours, when the bin is full and a signal is actuated, the 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) 652-5760 TWX 910-480-2101



## Current Pesticide Laws

by Marvin E. Winston,\* Associate Director,  
Jacobs-Winston Laboratories, Inc.



Marvin E. Winston

\* Marvin E. Winston, Associate Director of Jacobs-Winston Laboratories, Inc., attended the intensive 3-day course held in Albany, New York, entitled "Training the trainers in the Food Processing Industry" under FIFRA. Having passed the written examinations, he is now certified as a commercial pesticide applicator in the States both of New York and New Jersey; the first two states to initiate programs to satisfy FIFRA requirements. It is anticipated that a reciprocity will develop among the states with regard to certification thus eliminating additional red tape and allowing certified applicators to perform their functions country-wide.

What is FIFRA? FIFRA or the Federal Insecticide, Fungicide and Rodenticide Act was amended by Congress on October 21, 1972, and again in November, 1975. The Act recognizes that pesticides are both beneficial and necessary, and that risks regarding hazards to man and environment have increased with a pesticide usage increase by agriculture, industry, household and government.

The amended FIFRA extends Federal registration regulations to all pesticides sold within the United States, including those pesticides distributed or used within a single state. The law specifies that pesticides must be classified for "General" or "Restricted" use by October 21, 1977.

A General Use Pesticide is considered to be one which offers little hazard to man or environment when used in accordance with label directions.

A Restricted Use Pesticide is one which, if improperly used, poses a potential threat to man and/or environment and one requiring additional information to that on the label and application by a certified applicator.

Individual state laws, however, can be more strict than the Federal laws, e.g., New York and New Jersey laws will be requiring that both the General Use and the Restricted Use Pesticide be applied by a certified applicator or used under the direct supervision of a certified applicator.

EPA has defined pesticide applicators to be either "Commercial" or "Private". Applicators in the food manufacturing or processing industry however, will be certified as commercial applicators. In order to obtain certification, the commercial applicator will be tested on these general standards of competency:

1. Label and Labeling comprehension
2. Safety
3. Environmental Effects
4. Pests
5. Pesticides
6. Equipment
7. Application techniques
8. Pertinent State and Federal Laws and Regulations.

Additionally, the commercial applicator will be tested on problems and situations appropriate to his category or sub-category. Federal standards call for 10 different groups or categories of commercial applicators. Category 7 entitled Industrial, Institutional, Structural and Health Related Pest Control is of primary concern to the food industry.

Some of the important provisions of FIFRA are:

- A) It is unlawful for the pesticide user to: use a Restricted Use Pesticide unless he is certified, or making the application under the direct supervision of a certified applicator; or to use any registered pesticide in a manner inconsistent with its label instructions. "Direct Supervision" means that the certified applicator must be easily available to give advice or directions although usually he does not have to be present at the site of treatment.
- B) It is unlawful for both the pesticide manufacturer and pesticide user to: distribute, sell or

deliver any pesticide which is unregistered, adulterated or mis-branded; detach, alter or destroy any part of a pesticide label or to conceal or fail to show a restricted classification or make Restricted Use pesticide available to anyone not certified or not under the direct supervision of a certified applicator.

C) Fines for non-compliance if intentional may be assessed up to \$5,000 per each offense.

D) To knowingly violate the Act constitutes a misdemeanor and the violator upon criminal conviction, may be fined not more than \$25,000 or imprisoned for not more than one year or both.

What are PEPS? The Pesticide Enforcement Division of EPA issues Pesticide Enforcement Policy statements (PEPS) as they are needed. These statements are to inform those engaged in the formulation, distribution, sale, application or other use of pesticides of its policies in the enforcement of FIFRA.

### On Pesticide Policies

Testifying before an Environmental Protection Agency Advisory Committee in Kansas City, Darrell Jones made it plain that food processors have a real stake in pesticide policy formulation. Jones is currently Manager, Inspection Services for General Mills, Inc.

"Food processors," Jones told the Committee, "are both strong enough in numbers and unique enough in character to be fully consulted on pesticide use policy. The industry uses relatively few chemicals in its pest management programs. But the chemicals are applied selectively on a day-to-day basis. An application suitable for a particular pest in one instance might not be advisable under other circumstances.

"Our industry deals in raw agricultural commodities which are sometimes pest contaminated prior to receipt by the processor. Also, the vehicles used in food transportation

(Continued on page 30)

## PUSH PASTA



Invest 1 3/4c per cwt. monthly in pasta production promotion, consumer education, and trade advertising to keep sales up.



Constant promotion of macaroni, spaghetti, and egg noodles by the National Macaroni Institute, keeps these products in the consumer's view.

Recipes and photographs go to food editors of every type of media.

Educational materials and recipe leaflets are distributed to consumers, teachers and students.

Films and film strips are distributed for general use and special television showings.

TV Kits are periodically prepared for program producers.

Cooperation with related item advertisers and publicists is sought and obtained.

Special projects include press parties, materials for Consumer Specialists, background for editorial writers.

Do your Share—support the effort.

NATIONAL  
MACARONI INSTITUTE  
P.O. Box 336, Palatine, Illinois 60067

## 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

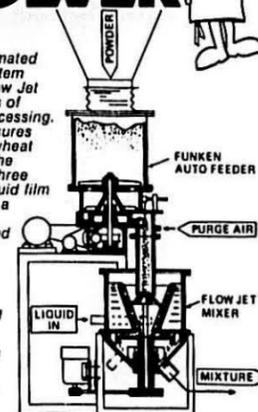
James J. Winston, Director  
156 Chambers Street  
New York, N.Y. 10007

## Noodle processing WITH Continuous Flow DISSOLVER



This continuous, automated noodle processing system using Model MW-F Flow Jet Mixer upsets 100 years of mechanical noodle processing. The Flow Jet Mixer insures that every particle of wheat flour is moistened to the proper viscosity. The three phases - flour film, liquid film & induced air - produce a tasty noodle that far exceeds hand processed noodles.

The remarkable Continuous Flow Dissolver is ideal for moistening and mixing all pasta products: noodles, spaghetti, macaroni, Bon giorno! Give us a call for complete information.



S. HOWES CO., INC. / 2053 Miller St., Silver Creek, N.Y. 14136  
Telephone 716/934-2611; TWX 510 246-6935  
Manufacturers of processing equipment since 1856.  
Licensed by Funken Co., Ltd.

## On Pesticide Policies

(Continued from page 28)

sometimes contaminated by pests to a degree. It is not surprising then that the food processors developed long ago an expertise in uniform pest management, integrating the use of pesticides along with other control techniques.

Given the number of firms in the food industry who are potential pesticide users, the variation of their needs, and the widespread usage of pesticides for preventative pest control on a continuing basis, you can see that our particular industry has a considerable interest in the formulation of sound pesticide policies.

"Yet food processors, flour millers among them, continue to be thought of as minor use pesticide purchasers not having the specialized need to warrant separate recognition in pesticide policy formulation.

### Separate Recognition Vital

"But such separate recognition is vital. At the federal level, the most appropriate solution would be to establish a separate category for food processors as pesticide users. Such a policy recommendation falls within the charge of this Committee, and I urge that such a suggestion be made.

"It is continually stated that regulation must not stifle the regulated body. Recently, however, the economic and procedural results of pesticide regulation have inhibited the ability of the food industry to manage pests.

"Much of this stems from lack of communication between EPA and the food industry. Not understanding the requirements of food processors has led to inadvertent restrictions and confusion. As a consequence, the number of effective pest control remedies available to the industry today has been reduced.

"The Millers' National Federation feels that the various segments of the food and pest management industries should work in concert to help develop adequate pesticide application techniques to overcome these impediments. This could be done through an EPA-recognized, inter-industry committee. We request the Advisory Committee to consider such a proposal in its recommendations to the Administrator.

"In summary, then, MNF 1) requests a subcategory recognizing the

unique nature of food processors; 2) looks for uniformity in the issuance of regulatory guidelines and Pesticide Enforcement Policy Statements (PEPS), and 3) endorses the concept of an inter-industry regulatory advisory committee."

## Moisture Testing Equipment

A comprehensive twelve-page brochure detailing the latest moisture testing equipment for a wide variety of industries is available from Testing Machines Inc.

The brochure contains instruments employing the continuous and spot test method of moisture measurement. Continuous measurement instruments consist of a console and one or several feather light electrodes usually positioned on the production equipment... deviation from desired moisture control is continuously indicated. Spot check instruments are valuable for trouble-shooting and quality control. Literally hundreds of products can be measured for moisture content. This method has the advantage of giving instantaneous and accurate readings over a wide band of moisture percentages. Operation is so simple even inexperienced operators can make several readings per minute.

Also included are over twenty-five photographs, schematic drawings, accessory items and suggested applications. Free copies are available by contacting Testing Machines Inc., 400 Bayview Avenue, Amityville, New York 11701. In Canada—Testing Machines International of Canada Ltd., 6 Ronald Drive, Montreal West, Quebec H4X 1M8.

## Omega Controls Corporation

Clyde Davis, former President of Datatron, in conjunction with Eric Hazelwood and Dick Hanashey, has formed Omega Controls Corporation with headquarters at 1542 Moulton Parkway, Tustin, California.

The primary goal of the company is to serve the process control industry, particularly in the areas of rubber, paper, textiles and food, by offering complete turnkey microcomputer-controlled systems to monitor and control such parameters as moisture, weight, temperature, etc. Omega Controls will also offer a number of

standard instruments and sensors for companies who are building their own process control systems.

As a first step in this direction Omega Controls has purchased the MM-600 Microwave Moisture Gauging System from the Acurex Corporation of Mountain View, California.

Said to be the most accurate system available, the MM-600 Moisture Gauge uses microwave absorption techniques to measure the moisture content in non-metallic solids and liquids. Typical applications include Textiles (woven, non-woven and pile fabrics and tire cord fabrics); Food Processing (dairy products, coffee and tea, grains and feeds, potatoes, sugar beets); Consumer Goods (tobacco soap and pharmaceuticals); Pulp and Paper Goods (wet end, dry end and felt); Construction Materials (heat board, insulation board). The MM-600 can measure moisture between 0.5% and 95% in virtually all non-metallic materials with accuracy to 0.1%.

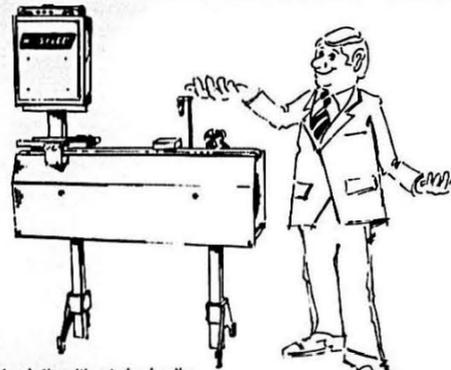
### Long Experience

The three principals of Omega Controls have many years of experience in both process control and computer-controlled data systems. Clyde Davis was one of the original founders of Datatron and was President for four years. Prior to that Mr. Davis was in the application engineering department at Astrotech who designed some of the world's most sophisticated high speed data systems. Eric Hazelwood has had 15 years of experience in process control—paper, food, rubber, plastic pharmaceutical. His most recent position was with Roger Bros an Idaho based processor of potatoes, where he developed the software and set up a microprocessor-based control system which handled 83 inputs, including the MM-600 Moisture Gauge. Dick Hanashey also comes from Datatron, where his most recent R & D project involved a 20MHz microprocessor-controlled pattern generator.

For further information contact Clyde Davis, President, Omega Controls Corporation, 1542 Moulton Parkway, Tustin, California 92680. (714) 731-2233.

Macaroni products attain equilibrium at a moisture content of 10.6%; egg products at 8.74%.

## CHECKWEIGHING...THE NEW STANDARD



THE HI-SPEED ST-71 Checkweigher is the ultimate in simplicity, from top to bottom. Features modern, low-profile design. Open top construction, simplified scale chain drive. Removable side panel, for access to scale and drive. Dual legs with minimum floor contact. All of which means sanitary operation and easy, low-cost maintenance. Only 36" long to fit easily into any packaging line.

SECOND TO NONE in performance too! The ST-71 handles packages, cartons or pouches weighing up to 32 oz. With excellent accuracy and speeds up to 350 per minute. Hi-Speed's advanced single board SD-74 control is standard. Three types of rejects are available: push-off (shown), sweep-off and drop-through. Counters and other options available.

Write for Bulletin... or send details of your requirements.

**HI-SPEED** HI-SPEED CHECKWEIGHER CO. INC.  
P.O. BOX 314-MJ ITHACA, N.Y. 14850  
PHONE 607/273-5121 • TELEX 937485

Checkweighers • Net Weighers  
Metal Detectors • Material Handling Systems  
Control Systems • Weigh/Price/Labelers  
Micro-computer Systems

## National Macaroni Manufacturers Association

### WINTER MEETING—FEBRUARY 9-13

Boca Raton Hotel  
and Club,  
Boca Raton, Fla. 33432

February 9—  
Welcome Reception  
February 10—  
State of the Industry  
February 11—  
Dinner Concerns  
February 12—  
Product Promotion  
Plus Tennis Mixer  
Golf Tournament  
Posta Party  
Banquet

Details for N.M.M.A.  
P.O. Box 336  
Palatine, IL 60067



Aerial view of Boca Raton Hotel and Club.

### At The Packaging Show

Of interest to macaroni manufacturers:

**Amaco, Inc.**, 2601 West Peterson Avenue, Chicago, Illinois 60659

Exhibited automatic thermoforming, filling and sealing equipment with transfer and cartoning, automatic pouch making, stacking and cartoning equipment, and a vertical liquid form, fill and seal machine.

**Aseeco Corporation**, 8857 West Olympic Boulevard, Beverly Hills, California 90211

Full scale operating Aseeco system comprised of an accumaveyor surge storage unit and the new Modu-Tran II distribution line for simultaneous feeding of multiple packaging machines at different rates on demand from a single product stream without starvation or the requirement for product recirculation.

**Clybourn Machine Company, A Division of Paxall, Inc.**, 7515 North Linden Avenue, Skokie, Illinois 60076

Model C4HL-CS vertical cartoner with volumetric filler. A vertical cartoning and volumetric filling machine with integral checkweigh servo system giving fill accuracies of  $\pm 1\frac{1}{2}\%$  of volume with speeds to 100 cartons per minute. The servo control system constantly regulates the volumetric filler to compensate for product density variations thus under and over weights are held to a minimum. Feed rate variations are also compensated for insuring increased fill accuracy.

**Fibreboard Corporation**, 31800 Hayman Street, Hayward, California 94544

Circle Design's four form-fill seal machines for pouch packaging liquids, powders and solids. High production and precise control, suitable for food, pharmaceuticals, cosmetics and medical disposables. "Pak-Master" wrap-around and tray-pak series machines are suitable for packaging most products that can be shipped or stored in a corrugated case.

**Hayssen Manufacturing Company**, P.O. Box 571, Sheboygan, Wisconsin 53081

Fifteen new and updated models. New in horizontal form/fill/seal; new RT-176 spaghetti feeder and packager, new infinite length pack-

ager, plus an RT-414. In vertical form/fill/seal; new super Compak® E-25 large range and H-15 twin tube machines, plus an all new overweight recycle system. In plastics forming; new Econoblow large range economy blowmolder, MB2125S larger capacity Monablow® and Monafomer®.

**Hi-Speed Checkweigher Co., Inc.**, P.O. Box 40, Ithaca, New York 14850

Large type printer; microcapacity checkweigher scale; 3S metal detector with new conveyor system; Insta-Weigh weigh-price labeler; CM60 checkweigher with HE70 control with digital setpoints and display; ST71 checkweigher with SD74 control; 1:3 magnetic flow director/divider.

**Hoefliger & Karg, c/o Robert Bosch Packaging Corp.**, 15 Seeley Avenue, Piscataway, New Jersey 08854

**Redington Incorporated (Formerly Crompton & Knowles Corporation)**, 3000 St. Charles Road, Bellwood, Illinois 60104

Economical Automax and high speed 3" Carton King III horizontal cartoners VP-2 or pouch packager for tablets, capsules, granular and non-free flowing products; CKSW-2 wrapper for various sizes and shapes of packages and the new 106-2 adjustable roll leaflet feeder.

**Triangle Package Machinery Company**, 6655 West Diversey Avenue, Chicago, Illinois 60635

The solid state Pulsamatic II form-fill-seal system that monitors and adjusts itself, has diagnostic lights and easy-cleaning design; Flexitron 1600 self-monitoring and adjusting net weigher; flat bottom bag version of Pulsamatic II microcomputer system that analyzes and reports weight trends, scale performance, downtime, and run summaries.

**Wright Machinery Company, Inc.**, P.O. Box 3811, Durham, North Carolina 27702

Mon-O-Bag III cereal packaging machine; Twinmaster VF high speed volumetric packaging machine; Mon-O-Bag 3SS AF high speed double tube auger fill 3-sided seal machine; Flat bottom bag machine—double auger fill system; Mon-O-Bag IV four scale form-fill-seal system.

### Crompton & Knowles Sells Packaging Machinery Div.

Gerard Ziffer, President of Amaco, Inc. acquired the Packaging Machinery Division of Crompton & Knowles.

The new company will be known as Redington, Inc. All operations will continue in Redington's Bellwood, Illinois plant.

### New Hayssen Machine

RT-176 Spaghetti Weighing, Feeding, Packaging System

1. Cascading tower from customer stripper cutter or bucket elevator conveyor.
2. Cascading tower vibrator.
3. Metering chamber vibrator.
4. Coarse volumetric feed adjustment.
5. Fine volumetric feed adjustment.
6. Product squaring ram dump hopper.
7. Vibrator to product divider (for two metering chambers).
8. Low volume cutoff "gate".
9. Adjustable "rear" eye (for printed film).

#### Product size:

Product length: 9 $\frac{1}{2}$ "-10 $\frac{1}{4}$ ".  
Minimum volume: 8 oz. Maximum volume: 3 lbs.

Service: 1.2 SCFM @ 40 PSI.

#### Speed:

Maximum feeding rate:	Speed
Weight	
8 oz.	40-45
1 lb.	40-45
2 lb.	TBD
3 lb.	TBD

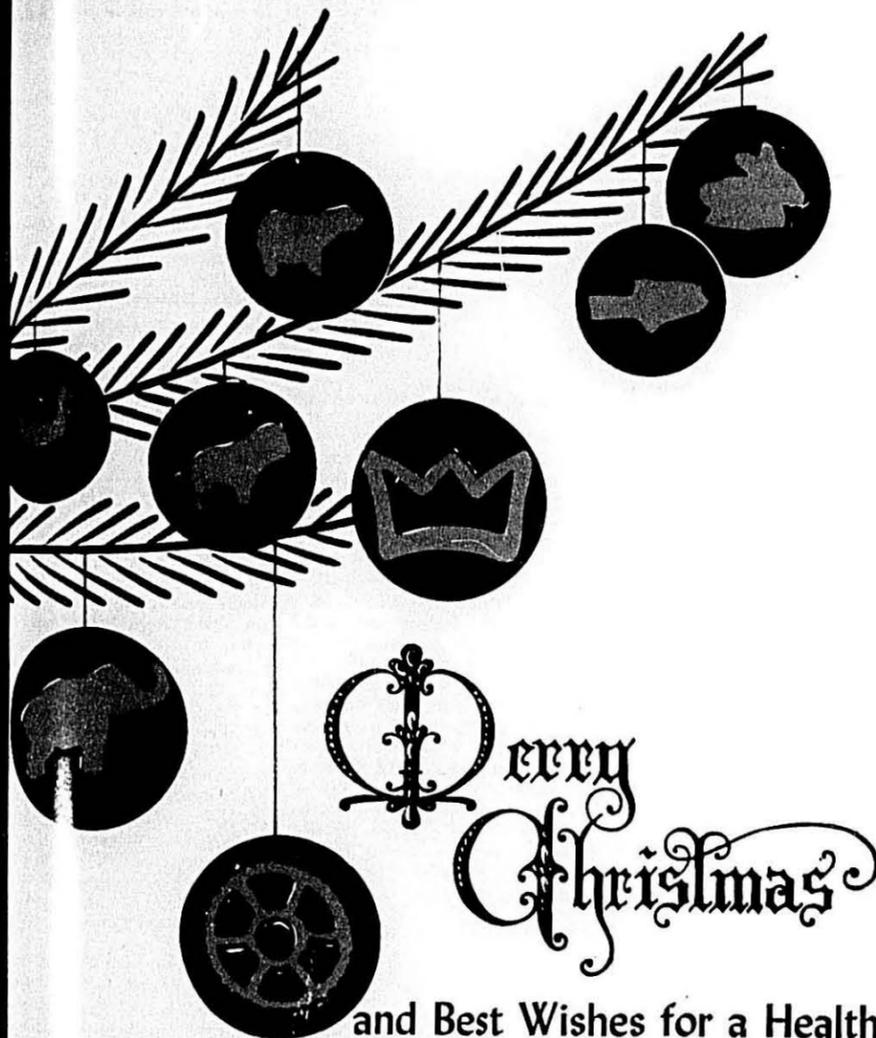
### Hi-Speed at Packaging Show

Hi-Speed's new Large Type Printer, Microcapacity Checkweigher, Scale, and Metal Detector Conveyor Systems were introduced and displayed for the first time at the PM Show during National Packaging Week, October 25-29, 1976, in Chicago.

The Model LTP-76 Large Type Printer is designed to provide highly legible, large type printed labels, cards, and tickets for a wide variety of applications. It can print variable weight information as received from a scale input as well as constant data code and plant number information. A manually operated box-end printer will be displayed although

(Continued on page 34)

THE MACARONI JOURNAL



and Best Wishes for a Healthy, Prosperous and Happy New Year



**D. MALDARI & SONS, INC.**

557 THIRD AVE. BROOKLYN, N.Y., U.S.A. 11215

Telephone: (212) 499-3555

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

### At the Packaging Show

(Continued from page 32)

custom and automatic units are available.

Hi-Speed's microcapacity weighing capabilities are extended with the introduction of a manual Microcapacity Checkweigher Scale. The Checkweigher Scale is designed to weigh lightweight tablets, pellets, or objects and display the weight as a plus or minus deviation from the target weight. Accuracies to  $\pm 7$  milligrams or better can be achieved with the unit.

#### Conveyor System

Hi-Speed's new Conveyor System designed for use with the Model 3S Metal Detector will also be introduced. The new conveyor design features an exclusive belt conveyor concept that allows the conveyor belt to be easily and quickly removed or installed and tensioned without the need for belt splicing or removable search head sections. Hi-Speed specializes in custom designed conveying systems for metal detector applications.

#### Push Checkweigher

Another new product introduction is the Model IFP-75 Pouch Checkweigher and transfer on display in the Rexham Corporation's Booth No. 300. The IFP75 Checkweigher and transfer were operating in conjunction with the Bartelt Model 710 Horizontal Form, Fill, and Seal Packager.

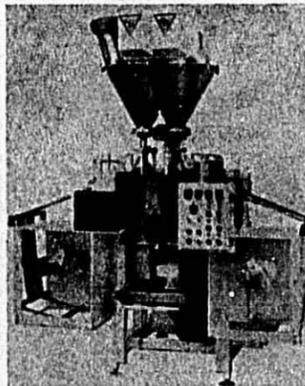
Also on display in Hi-Speed's Booth was the Insta-Weigh Weigh-Price Labeler, the Model CM80 Checkweigher with a digital display and digitally set checkweigher set points, the Model ST71 Checkweigher with the SD74 Control, and a 1:3 Magnetic Flow Director/Divider.

Complete information on the above products is available from Hi-Speed Checkweigher Co., Inc., P.O. Box 314, Ithaca, New York 14850. Please address all inquiries to C. R. Pettis III.

#### Wright Features New Advances

The ability of modern form-fill-seal machinery to increase the speed of packaging lines without requiring major plant expansion was demonstrated at the PMMI Packaging Show.

Wright Machinery Company showed five recent F/F/S variations in action.



Model 3SS Bagmaker Twin AF System

A Mon-O-Bag® system was shown for packaging cereal in bags up to 12" wide  $\times$  22" long. The system comes with 2, 3, or 4 Electroflex® scales, depending upon desired speed. Its feeding arrangement is tailored for the particular product being packaged. For cereals, the product for which this machine is designed, a product surge hopper and bulk/dribble vibrating conveyors leading to each scale are employed.

Another Mon-O-Bag® model—this one with four scales—was seen producing formed, filled, and sealed bags 5½" wide  $\times$  9" long. With comparable accuracy, this model increases packaging speed by 85% over that of a two-scale unit, yet requires no additional floor space. One feature that allows the new four-scale Mon-O-Bag® 9-18 to achieve its higher speed is its Vi-Bi-Trol® oscillating hopper. It is designed and synchronized to insure an even flow of product to the vibratory feeding each weighing head.

Pretzel nuggets were packaged at speeds up to 140 bags per minute by the Twinmaster Volumetric F/F/S system, a striking illustration of compact design. Other Twinmaster models are available with auger or net weigher.

Coffee, or a product substitute, were packaged in flat-bottom bags with a double augered Mon-O-Bag® system. Weight range is one-half to three pounds at speeds from 20 to 50 units per minute. The package contour has a high visual that commands the shopper's attention.

High speed packaging (up to 140 units per minute) were demonstrated

for products such as powdered drink mixes, puddings, nuts, and gelatin. The machine shown for this purpose produces pouches 2½"  $\times$  3" minimum and 5½"  $\times$  12" maximum with three or four sides sealed.

Technical data and price and delivery information on the machines are available by writing to Wright Machinery Company, Inc., Durham, N.C. 27702. Telephone (919) 682-8181.

#### White House Announces U.S. Metric Board Nominees

Washington, D.C.—The White House announced President Ford's intention to nominate the following people to the U.S. Metric Board:

For six-year terms: Dr. Louis Polk (chairman), Louis Polk, Inc.; Satenig St. Marie, J. C. Penney Company; James D. "Mike" McKeever, National Federation of Independent Business; Francis R. Dugan, Dugan & Meyers; Frank Hartman, Michigan Dept. of Education; Jerry McKeever, Media Research Associates; and Keyon Taylor, Regal-Beloit Corporation.

For four-year terms: Valerie A. Linton, Litton Dat Systems; Ralph Deham, Sr., International Brotherhood of Teamsters; Harry Kinney, mayor of Albuquerque, New Mexico; Charles Beck, Charles Beck Machine Corporation; and W. E. Hamilton, American Farm Bureau Federation.

For two-year terms: Harold Agnew, Los Alamos Research Laboratory; Adrian Weaver, IBM Corporation; Andrew Kenopensky, International Association of Machinists and Aerospace Workers; Sydney D. Andrews, Florida Dept. of Agriculture and Consumer Service; and Virginia Knapp, consumer advisor to President Ford.

Provisions for formation of the board were made in the Metric Conversion Act of 1975, which President Ford signed into law on December 23, 1975.

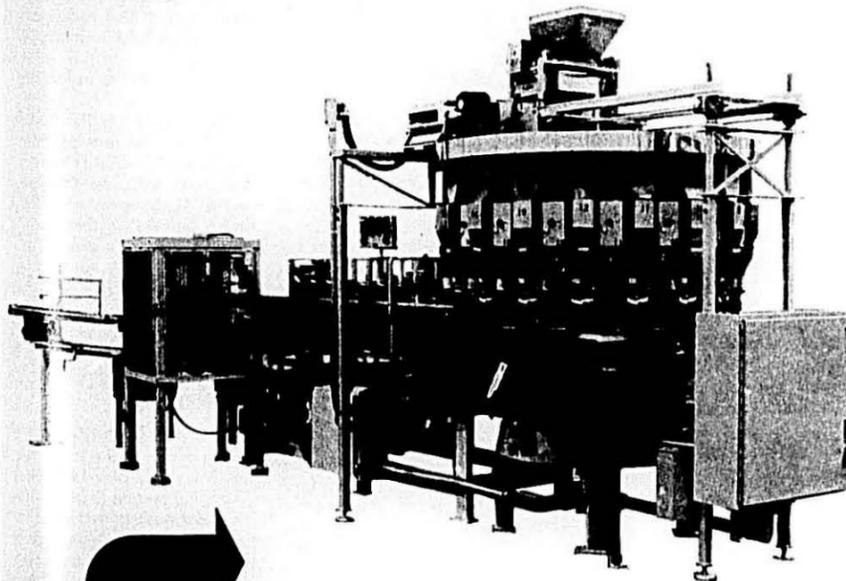
In commenting on the nomination, Dr. Malcolm O'Hagan, president of the American National Metric Council, said, "ANMC is looking forward to working with the U.S. Metric Board in the years ahead. Metric conversion will benefit the nation in many ways, and cooperation between ANMC and the Metric Board will contribute to an orderly, efficient transition."

## A new Wright capability- MACARONI PACKAGING

Macaroni short goods yield to Wright packaging machinery capability. This new Rotary Net Weigher and cartoning system weighs and packages macaroni at speeds of 200 per minute. Faster because there are more weigh heads. More accurate because there's more time to weigh. And, the continuous motion of this system vs. standard stop-and-go motion means less wear, less maintenance. Minimum floor space, too.

Wright Rotary Net Weighers—recommended for high speed, weighing and packaging a variety of products in cartons, jars, or cans. An example of Wright Machinery capability to design, manufacture and service packaging machinery systems tailored to your requirements. Ask for our new Rotary Net Weigher brochure.

► DESIGN ► MANUFACTURE ► SERVICE



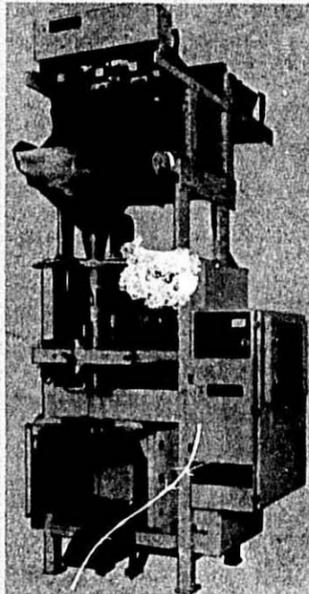
**WRIGHT MACHINERY COMPANY, INC.**  
Durham, North Carolina 27702 Tel. 919-682-8181

## Triangle Systems

Easy-to-care-for self-adjusting packaging equipment, machines that make fin seal and flat bottom bags, a micro-computer system that analyzes and reports packaging line data, and counterbalanced hydraulic conveyors and distributors, were introduced by Triangle Package Machinery Company at the 1976 Packaging Show at Chicago's McCormick Place.

The new equipment demonstrates Triangle's success in developing equipment that meets tough weight, sanitary and safety requirements, and at the same time is simple to operate and provides information, according to Walter P. Muskat, executive vice president of the firm.

With the recent introductions of Pulsamatic form-fill-seal machines and Flexitron 1600 net weighers, the company's packaging systems feature all integrated solid state circuitry. This, says Mr. Muskat, opened the door to developing packaging lines that continuously monitor and adjust themselves while providing optimum, accurate production.



Pulsamatic II

**Pulsamatic II's Clean Machine**  
Triangle's new Pulsamatic II comes with a variety of features designed to make it as safe and simple to clean and maintain as possible. The new form-fill-seal machine, which incorporates the self-monitoring and adjusting components and solid state circuitry of its predecessor, has a frame that sheds product fines and an open design to make cleaning, even with a hose, quick and thorough. The machine also has been elevated to simplify clean-up under and around it.

Pulsamatic II's forming mechanism is extended from the frame so that jaw adjustments can be made faster. To simplify bag size adjustments, the jaw closing position is stationary. And the entire sealing area is enclosed for safety.

The sealing system is available with a high-speed mechanism that performs up to 30 per cent faster than previously possible, even with heavier gages of poly and larger package sized.

All lines (pneumatic, electrical, etc.) are grouped and routed cable-style for orderliness, ease of identity and to minimize flexing.

Dust and drip-proof cabinetry not only houses the electronics but also swings open for access to centrally located pneumatics and other lines.

To simplify bag stroke adjustment, the machine has a large door at its back. A pulse generator replaces the can shaft and adjustments in this area are dial tuned.

Diagnostic lights trace functions and pinpoint the need for attention if one ceases to blink. The electronics are on PC boards that quickly slide in and out of their rack.

When the film nears its end, a run-out signal goes on and the system stops. Another signal identifies the scale that made the bag just released.

All controls have been placed within convenient reach and their legends are in easy-to-understand language.

Pulsamatic II can be used with Triangle's Flexitron 1600 net weigher, or with the company's volumetric or auger feeders. It also interfaces with the firm's Datapak micro-computer information system.

### Flat Bottom Bag Machine

Triangle's new Flat Bottom Bag version of Pulsamatic II keeps product out of the bottom gussets by re-

laxing the film while the flat bottom is formed. This takes place before filling so that product also helps keep the bag's bottom flat.

The package begins when the film moves over the forming shoulder and around the forming tube. As it continues down the tube, creases make four sharp longitudinal edges. It's back sealed and moves over a rectangular shaper. Then two tucks form the flat bottom gussets and the heated shaper plates complete the flat bottom—functions performed while the film is relaxed. Finally the bottom is cross sealed, the bag is filled and top sealed. It is released by a "seat" that flattens the bottom before being discharged to a takeaway conveyor.

### Fin Seal Bag Machine

This fin seal machine keeps the package open enough for easy, smooth filling of fine or bulkier items.

The Triangle Fin Sealer makes both 4 and 3-sided packages with the same speed and accuracy of other Pulsamatic II vertical form-fill-seal systems. It also can make pillow style bags.

The system's forming shoulder is to the left of the forming tube rather than behind it, so that the advancing film starts with one fin shaped and sealed. At the same time, the film is drawn into fin on the opposite side. That fin receives a seal-like crimp.

The two sided fin film advances along spreaders that form an oval shape and the bottom is cross sealed. The package filled and the top sealed creating the fourth fin. The fins are formed by not crimping the left side of the package.

### Datapak Information System

Also shown at the Packaging Show was Triangle's new Datapak, a data processing system that monitors, analyzes and reports packaging line performance. The company developed the data system to help operate a more efficient plant by providing many key people and departments with information needed to improve operations.

Datapak taps information on production, inventory, performance, efficiency, etc., and makes it immediately available to the plant manager, quality assurance, purchasing, maintenance people, operators and others.

(Continued on page 38)

May the peace and happiness

of the Holiday Season be yours

throughout the coming Year



**BALLAS EGG PRODUCTS CORPORATION**

ZANESVILLE, OHIO

NEW YORK, N.Y.

### Triangle Systems

(Continued from page 36)

The information generated has never before been available to packagers. Reporting is 100 per cent—a sample—and is available by accessing the system at any time.

Datapak consists of a microcomputer, entry keyboard, CRT display screen and hardcopy printer.

Information provided includes:

**Weight Trend Analysis**—Current individual weights for each scale and a moving average, standard deviation for each and other important scale data. Operators, set-up and service men use it for accurate adjustments.

**Scale Analysis**—Summarizes scale details from run start to time of request, such as average weight, packages under minimum weight and label weight, standard deviation, and the like. Foremen, supervisors and set-up men use it to keep scales in perfect tune.

**Time Analysis**—Tells why a machine was or was not running, recording time for operation changes, preventive and required maintenance, employee breaks, etc. With it, managers and foremen have accurate information on which to take action, if necessary.

**Individual Run Summary**—Summarizes run information for management, production and quality assurance people, for one or more machines.

**Daily Run Summary**—Provides information on overall performance of the entire packaging operation.

#### Flexitron 1600 Net Weigher

The Flexitron 1600 net weighing system displayed features, solid state electronics and automatic controls for fine weight, dribble time, feed rate, tare and checkweighing. Each portion of product is checkweighed before discharge, with checking repeated. These functions are continuously monitored and automatic adjustments are made instantaneously.

The Flexitron 1600 also has diagnostic lights that trace functions, plug-in PC boards, identification of the scale responsible for the weight appearing on the digital readout.

Its feed system is synchronized to give even distribution of product to each scale head, avoiding choking or starving. And its simple frame is designed to shed fines and for easy cleaning.

The recently introduced system interfaces with the company's new Datapak data processing system.

#### CBH Conveyors, Distributors

This new line of conveyors and distribution systems from Triangle are counterbalanced to keep the hydraulic vibrations out of the stand. This makes them lighter and easier to place than conveyors that use the base to soak up movement.

Flow rates can be dial tuned while the CBH is running and remain constant, regardless of product surge or changes in density. Action can be stopped or started instantly, since there is no mechanical inertia to overcome. Vibration can be varied on signal or demand with automatic Servogard.

Smaller motors are used, requiring less energy, and with no chains or other mechanical components the conveyors are easy to maintain and clean.

The distributors let packages send product to multiple stations. These proportioned systems synchronize with each station's product need so that no packaging machine is choked or starved. Automatically operated station gates route product to where it is needed.

#### Case Sealer



Only 9' long by 3' wide by 5' high, A-B-C's automatic top and bottom sealer, Model HMLA, features a hot melt system and easy crank adjustment to a wide range of case sizes.

Cases are timed into the HMLA between flight lugs, which push on opposite corners to assure a square case. The glue pattern is adjustable, controlled by timers, and the machine has a built-in compression unit 2' long.

Illustrated literature is available from A-B-C Packaging Machine Corporation, 811 Live Oak Street, Tarpon Springs, Florida 33589.

**N.M.M.A. Winter Meeting  
Boca Raton, Florida  
Feb. 9-13, 1977**

### Clybourn Announces Horizontal Glu-Pac Macaroni Cartoner

The Clybourn Machine Company has developed a continuous motion cartoner that automatically packages long-cut spaghetti, lasagna and similar products at speeds up to 120 cartons per minute.

Adaptable for hand-loading or in-line with a volumetric or net weight scale feeding system, this CMC cartoner packages 1/4 lb., 1 lb., 2 lb., and 3 lb. volumes in standard seal end cartons with infestation-proof seal. A Nordson circulating hot-melt adhesive system utilizing 4-gun dual orifice nozzle applicators with carton closure mechanisms assures tight double seal end carton closures.

Product is fed into trays that interface cartons with the flap area to provide a direct loading funnel into the carton. A positive carton feeder with auxiliary preopener and a conveyor with solid platform lugs assure well-formed and squared cartons. Product is compressed and confined on all four sides during loading.

Other features include a rotary date boss coder for open date designation, no product/no carton, no carton/no product, and product jam/stop controls.

Clybourn Machine Company, a division of Paxall, Inc., is a manufacturer of packaging and filling equipment. For more information on the CMC Horizontal Glu-Pac Macaroni Cartoner write Clybourn Machine Company, 7515 North Linder Avenue, Skokie, Illinois 60076.

#### Next IPACK-IMA

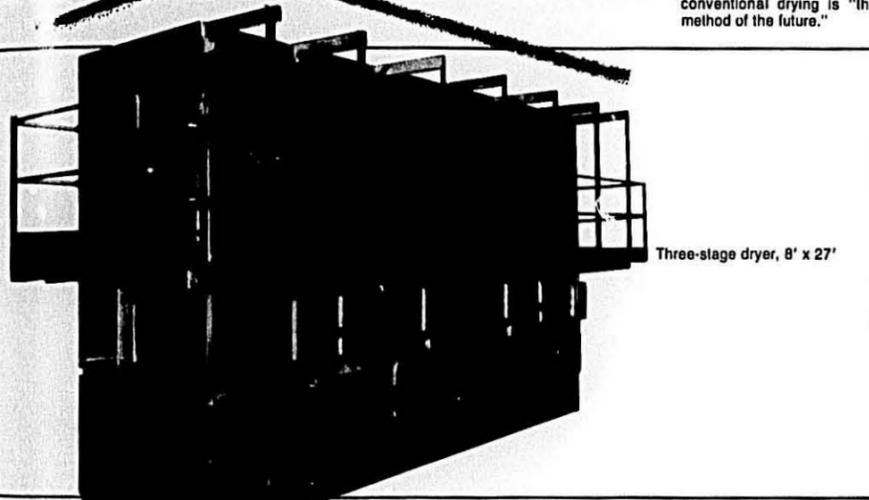
The next IPACK-IMA, International show of packing and packaging machinery, food processing, industrial machinery, including the largest display of pasta production equipment in the world, will be held October 3-9, 1977 within the Mid-America Fair grounds.

IPACK-IMA, by this time, can be considered as one of the leading European events concerned with food processing.

The last exhibition, in February 1976, attracted 803 exhibitors and 72,199 visitors from 77 nations.

N.M.M.A. plans to take a delegation to the Show.

## THE DRYER OF THE FUTURE



Three-stage dryer, 8' x 27'

## TODAY'S DRYER

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

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

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 a richer looking product; no blanching.

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

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

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

Compared with conventional dryer



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  
415/837-9106



New! Diewasher by Microdry. More compact; 2000 psi. water nozzle pressures.

**INDEX TO ADVERTISERS**

ADM Milling Co. ....	13
Amber Milling Co. ....	11
Asesco Corporation ....	27
Bellas Egg Products Corp. ....	37
Breibanti Corp. ....	16-17
Buhler-Mieg, Inc. ....	25
DeFrancisci Machine Corporation ....	7-6
Diamond Packaged Products Div. ....	41
Fibreboard Corporation ....	2
Hi-Speed Checkweigher ....	31
Hoves Co. ....	29
International Nutfoods Corp. ....	42
Jacobs-Winston Laboratories ....	29
Malderi & Sons, D., Inc. ....	33
Microdry Corporation ....	39
National Macaroni Institute ....	29
NMMA ....	31
North Dakota Mill ....	3
Peavey Co. Flour Mill ....	22-23
Rosotti Consultants Associates ....	19
Seaboard Allied Milling Corp. ....	9
Wright Machinery Co. ....	35

**CLASSIFIED ADVERTISING RATES**

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

**FOR SALE—Hydraulic Tote Bin Dumper, 2,500 lb. capacity, Class 2-GPG explosion proof motor and controls. Excellent condition. Call or write A. G. DeFelicis, U.S. Macaroni Co., East 601 Pacific, Spokane, Wash. 99202, (509) 747-2085.**

**FOR SALE—83 page book on Macaroni, Noodles, Pasta Products by James J. Winston, \$8.00 postpaid if check is sent with order. P.O. Box 336, Palatine, Ill. 60067.**

**Frank T. Cordaro**

Frank T. Cordaro passed away October 8 following a short illness. Born and raised in Shreveport, Louisiana, he was president and general manager of Shreveport Macaroni Manufacturing Co., Inc. He had worked for forty years without missing a day until his final illness. He was 63.

Educated in Shreveport he was a member of St. Joseph's Church, Knights of Columbus Council 1108, Shreveport Progressive Men's Club, Shreveport Chamber of Commerce and the National Macaroni Manufacturers Association.

He is survived by his wife Mary, a son—John Francis, a granddaughter, and two brothers, Joseph and Anthony.

**Louis Stratta**

Louis Stratta, 89, a resident and executive chef of the Broadmoor Hotel at Colorado Springs, died on October 22.

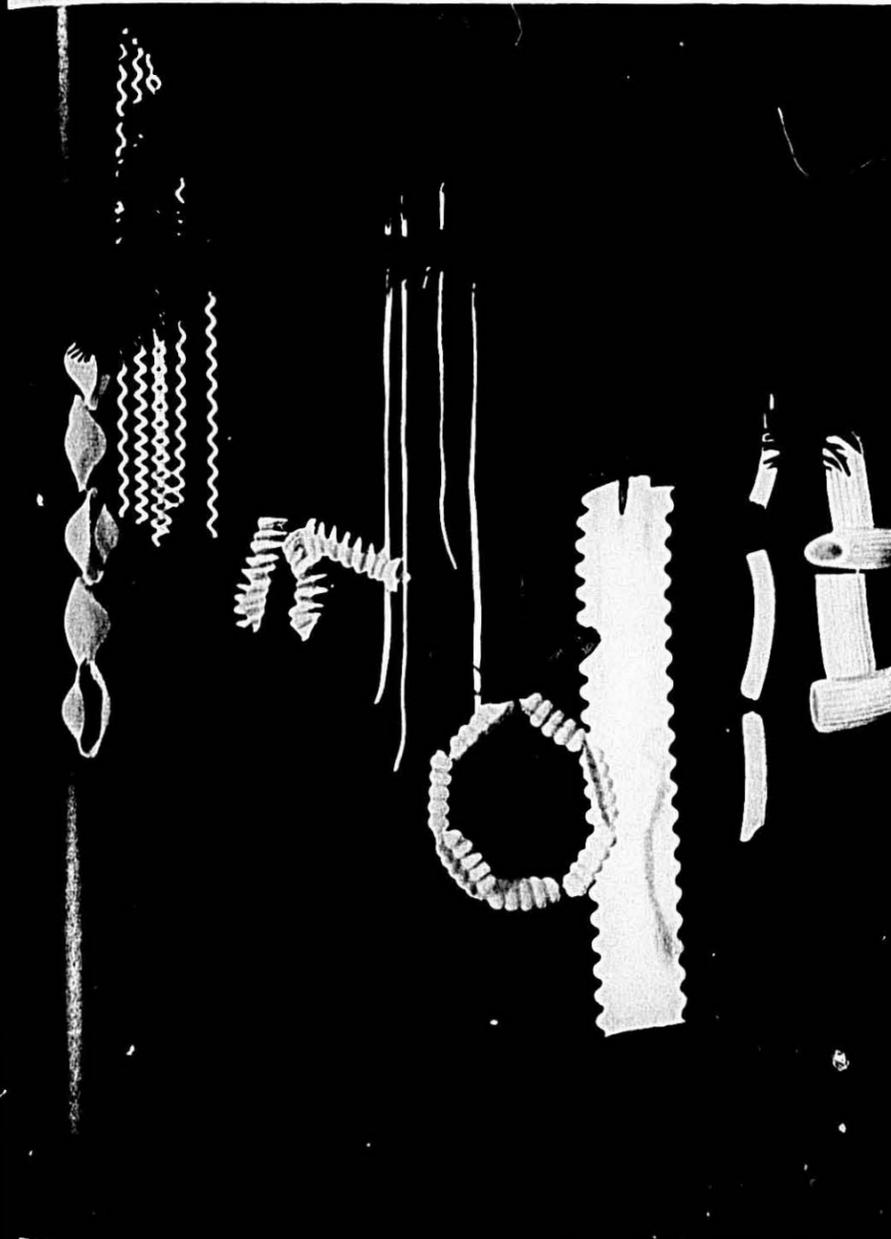
Stratta was named executive chef of the Broadmoor when its construction began in 1916. He prepared the hotel's grand opening June 29, 1918, and he recreated it 50 years later.

Frank Veltrie, Denver food broker relates that he first met Mr. Stratta at the Brown Palace Hotel in 1916 where he prepared a spaghetti dinner for Joseph Freschi of Ravarino. Freschi, Mr. Veltrie and some other guests. Mr. Veltrie kept the chef a satisfied customer for many years at the Broadmoor.

Surviving Mr. Stratta is a sister, Mrs. Clotilde Tempia, living in Italy.

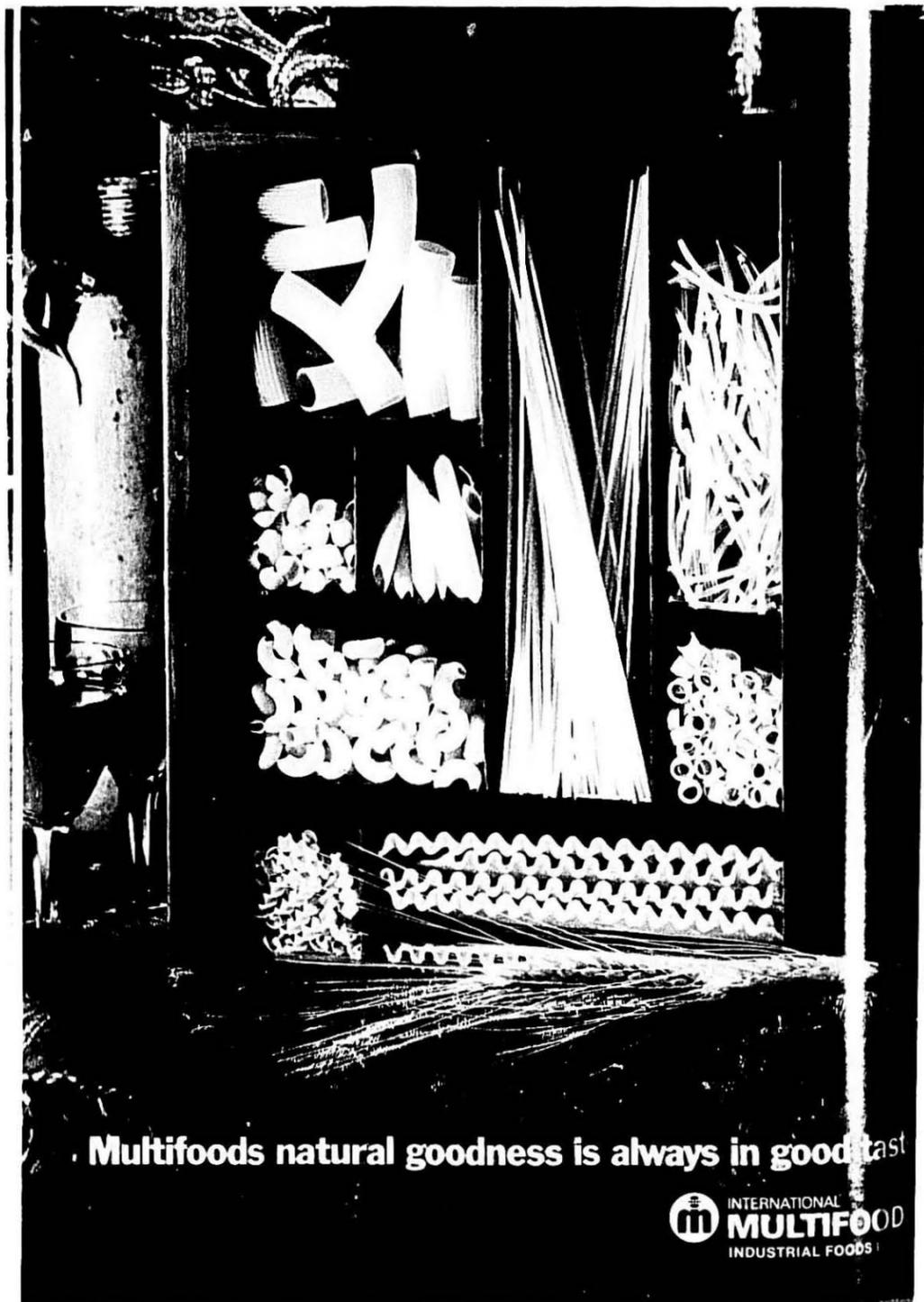
U.S. POSTAL SERVICE  
**STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION**  
(Required by 39 U.S.C. 3685)

1. TITLE OF PUBLICATION: **Macaroni Journal**  
2. DATE OF FILING: **9-24-76**  
3. FREQUENCY OF ISSUE: **Monthly**  
4. ANNUAL SUBSCRIPTION PRICE: **\$10.00**  
5. LOCATION OF HEADQUARTERS OR GENERAL BUSINESS OFFICES OF THE PUBLISHERS (Not printers): **19 S. Bothwell, Palatine, IL. 60067**  
6. LOCATION OF THE HEADQUARTERS OR GENERAL BUSINESS OFFICES OF THE PUBLISHERS (Not printers): **Same as above**  
7. NAMES AND COMPLETE ADDRESSES OF PUBLISHER, EDITOR, AND MANAGING EDITOR:  
PUBLISHER (Name and Address): **National Macaroni Manufacturers Association**  
EDITOR (Name and Address): **Robert M. Green, 19 S. Bothwell, Palatine, IL. 60067**  
MANAGING EDITOR (Name and Address): **Same as above**  
8. OWNERS (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of each individual owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given.)  
NAME: **National Macaroni Manufacturers Association** ADDRESS: **19 S. Bothwell, P.O. Box 336 Palatine, IL. 60067**  
9. KNOWN BONDHOLDERS, MORTGAGEES, AND OTHER SECURITY HOLDERS OWNING OR HOLDING 1 PERCENT OR MORE OF TOTAL AMOUNT OF BOND, MORTGAGES OR OTHER SECURITIES (If there are none, so state)  
NAME: **none** ADDRESS:  
10. FOR COMPLETION BY NONPROFIT ORGANIZATIONS AUTHORIZED TO MAIL AT SPECIAL RATES (Section 132.125 (2)(B))  
The purpose, function, and nonprofit status of this organization and the exempt status for Federal income tax purposes (Check one):  
 HAVE NOT CHANGED DURING PRECEDING 12 MONTHS  HAVE CHANGED DURING PRECEDING 12 MONTHS (If changed, publisher must submit explanation of change with this statement.)  
11. EXTENT AND NATURE OF CIRCULATION  
A. TOTAL NO. COPIES PRINTED (Net Press Run) 1050 1050  
B. PAID CIRCULATION  
1. SALES THROUGH DEALERS AND CARRIERS, STREET VENDORS AND COUNTER SALES  
2. MAIL SUBSCRIPTIONS 1004 994  
C. TOTAL PAID CIRCULATION (Sum of 1B1 and 1B2) 1004 994  
D. FREE DISTRIBUTION BY MAIL, CARRIER OR OTHER MEANS (SAMPLES, COMPLIMENTARY, AND OTHER FREE COPIES) 30 29  
E. TOTAL DISTRIBUTION (Sum of C and D) 1034 1023  
F. COPIES NOT DISTRIBUTED  
1. OFFICE USE, LEFT OVER, UNACCOUNTED, SPOILED AFTER PRINTING 16 27  
2. RETURNS FROM NEWS AGENTS 0 0  
G. TOTAL (Sum of 11, F1 and F2—should equal net press run shown in A) 1050 1050  
12. I certify that the statements made by me above are correct and complete. *Robert M. Green*  
13. FOR COMPLETION BY PUBLISHERS MAILING AT THE REGULAR RATES (Section 132.121, Postal Service Manual)  
39 U.S.C. 3626 provides in pertinent part: "No person who would have been entitled to mail matter under former section 4108 of this title shall mail such matter at the rates provided under this subsection unless he files annually with the Postal Service a written request for permission to mail matter at such rates."  
In accordance with the provisions of this statute, I hereby request permission to mail the publication named in item 1 at the phased postage rates presently authorized by 39 U.S.C. 3626.  
SIGNATURE AND TITLE OF EDITOR, PUBLISHER, BUSINESS MANAGER, OR OWNER  
*Robert M. Green, Editor*  
PS Form 3526 (Page 1) Apr. 1976 (See instructions on reverse)



**DIAMOND INTERNATIONAL CORPORATION**  
PACKAGING PRODUCTS DIVISION  
733 Third Avenue, New York, New York 10017





Multifoods natural goodness is always in good taste

 INTERNATIONAL  
**MULTIFOOD**  
INDUSTRIAL FOODS