

**THE
MACARONI
JOURNAL**

**Volume 57
No. 8**

December, 1975

Macaroni Journal

DECEMBER, 1975

ADESTE FIDELES
(O COME, ALL YE FAITHFUL)

Broadly

PIANO

come, all ye faith-ful,
Joy-ful and tri-
um-phant, O
come ye to
Come and be hold

Arranged by [illegible]

Holiday Trim
on page 6

sire
en at it
yers,
e durm
ars.
cold

ectis"

DD

ota 54

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, 500 S. Kan Avenue, Englewood Cliffs, N.J. 201-568-7500.




fibreboard



the durum people

NDM

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

The Macaroni Journal

December
1975
Vol. 57
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 Nicholas A. Rossi
1st Vice Pres. L. D. Williams
2nd Vice Pres. ... Paul A. Vermylen
3rd Vice Pres. Angelo Guido
Executive Secretary ... R. M. Green
Director of Research .. J. J. Winston

Directors

Eastern Area

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

Central Area:

Alvin M. Karlin
Ralph Sarli
Lloyd E. Skinner
Walter Villiaume, Jr.
Robert William

Western Area:

Vincent DeDomenico
Angelo Guido
Robert William

Canada:

John F. Ronald

At Large:

L. M. (Andy) Anderson
Albert S. Ravarino

MACARONI JOURNAL

Subscription rates
Domestic \$ 8.00 per year
Foreign \$10.00 per year
Single Copies \$1.00 each
Back copies \$1.00 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.

4

In This Issue:

Holiday Trim—The Godfather's Cookbook	Page
Durum Show Report	
Durum Statistics	
Russian Agreement—Farm Policy	
Expanded Durum Improvement Research	
Solar Drying of Grain	
Good Manufacturing Practices	
Cereal Foods World—Food from Crude	
Comments on Microbiology	
OSHA Lists Most-cited Violations	
You'll Have to Speak Up	
Milling News—Corrugate Shipments Down	
Personals—Foreign News	
In the Macaroni Industry	
Index to Advertisers—H. Edward Toner	

Statement of Ownership

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION (Act of October 23, 1962; Section 4305, Title 39, United States Code) of the Macaroni Journal, published monthly at Appleton, Wisconsin, as of November 21, 1975.

Location of known office of publication: 119 No. Mason St. (P.O. Box 386) Appleton, Outagamie County, Wisconsin 54911. Location of headquarters or general business offices of the publishers: 19 S. Bothwell St. (P.O. Box 336), Palatine, Ill. 60067. Name of Publisher: Editor and Managing Editor: Robert M. Green, National Macaroni Manufacturers Association, 19 S. Bothwell St. (P.O. Box 336), Palatine, Ill. 60067.

Owner (if owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses, as well as that of each individual must be given. Non-profit trade association—no stockholders.

Known bondholders, mortgagees, and other security holders owning or holding 1 percent or more of total amount of bonds, mortgages or other securities (if there are none, so state): None.

In next month's issue:

Winter Meeting Program

January 20—State of the Industry
January 20—Grocers Panel—George Koch, GMA.
January 22—Product Promotion—Contest Winners.

SEASONS GREETINGS!

THE MACARONI JOURNAL

FOOD PROCESSING & HANDLING EQUIPMENT



Company

P.O. Box F
LIBERTYVILLE, ILLINOIS 60048
Area Code (312) 362-1031
TWX 910-684-3278
Hoskins Liby

Dear Sir:

ASEECO Conveying and bulk storage systems fill the gap between your production and packaging lines. Insure smooth efficient operation of your packaging machines by day while running your production lines around the clock.

ASEECO ACCUMAVEYORS for noodles.

ASEECO STORAGE BINS for short cuts.

Both are designed to provide surge storage and versatility for the packaging line. With the combination of bucket, belt and vibratory conveying units a dozen or more packaging machines can be consistently supplied without the starvation of any one.

ASEECO CORPORATION of Beverly Hills, California has supplied conveying and storage systems to the macaroni manufacturers of the United States, Canada, and the world.

Call Hoskins Company, representative for Aseeco to the Macaroni Industry, for complete evaluation of your requirements. We will be pleased to visit your plant at your convenience.

Yours very truly,

HOSKINS COMPANY

Albert B. Green

Albert B. Green

DECEMBER, 1975

5

Holiday Trim

At Christmastime, there is nothing that captures the spirit of the festive season better than holiday decorations. The most beautiful and beloved things at Christmas are those you make yourself—for yourself or for gifts. Here's where pasta comes into the spotlight. Pasta comes in many shapes and sizes to lend itself for many imaginative holiday trims for the Christmas tree, entranceway, walls, holiday tables, etc.

Karen Mergeler, author of "Noodle Doodle—The Art of Creating with Pasta", devotes a chapter in her book on Holiday Trim. Directions for creating Snowflake Ornaments, Macaroni Tree and Florentine Holiday Ornaments are among those "trims" Mrs. Mergeler mentions, along with other suggestions for being creative.

Swinging Angels Mobile

Angels. Use cones and balls of styrofoam to form angels. Hold together with florists' pins. Wrap bodies with semi-circles of felt. Pin in place. Paste pinked circles of felt to bottom. Pin on felt capes and add gold-sprayed wings and crowns cut from cardboard. Insert and glue cut-off hairpin hangers at top of heads. Decorate with colorful pasta, gold-sprayed paper doily cut-outs, sequins and glitter.

Ornaments. Cut cardboard circles and spray with gold. Glue macaroni shapes all around on both sides. Under one macaroni piece on each ornament glue cut-off hairpin hangers.

Mobile. Tie lengths of heavy thread or nylon fishline onto gold-sprayed 1/4-inch dowling and then tie other end to hangers on ornaments or angel heads. Secure with drops of white glue. Move angels and ornaments along dowling until perfect balance is reached. Glue in place.

Tree Trims

Pendants. Delightful tree ornaments may be made by cutting out pendant shapes from posterboard and spraying with dull black or white enamel, or using thin styrofoam sheets and cutting out desired shapes. Then glue golden macaroni pieces, previously sprayed in the bottom of a large pan, to the pendants with transparent drying glue. Or place macaroni on posterboard or styrofoam in a design of your



Swinging Angels

own choice, and spray the entire ornament gold, silver or whatever color you prefer.

Garlands. This is a do-it-yourself project that the little ones in your family can make easily. String elbow macaroni alternately with brightly colored Christmas beads. To stiffen string for easier threading dip 2 inches at end in clear nail polish.

Give Santa something to smile about when he sees the new fancy trimmings this year. Creating with pasta products is fun and relaxing. The possibilities for imaginative designing are limitless!

Bird 'n' Box Centerpiece

Try this zany macaroni Christmas bird perched on a nest to match, if you want to go a bit wild for a Holiday centerpiece.

Macaroni Bird. Cut bird shape from 2 thicknesses of cardboard pasted together. Glue one end of 1/4-inch dowling between layers and insert other end in a styrofoam platform. Spray bird and dowel with gold spray. Using white glue, add pasta plumage dyed with all-purpose dye, glitter and sequins.

Box. Nest the bird in a whit gift box (or cut down shoe box and spray it white). Glue on an assortment of macaroni "jewels" and glitter. After setting bird firmly in center of box, fill with an arrangement of fabric and ornaments, or with greens or tiny gifts. Circle box with boughs of evergreens.

NMMA Winter Meeting

January 19-23, 1976

Key Biscayne Hotel & Villas

Key Biscayne, Miami, Fla.

Make Reservations Now.

The Godfather's Cookbook

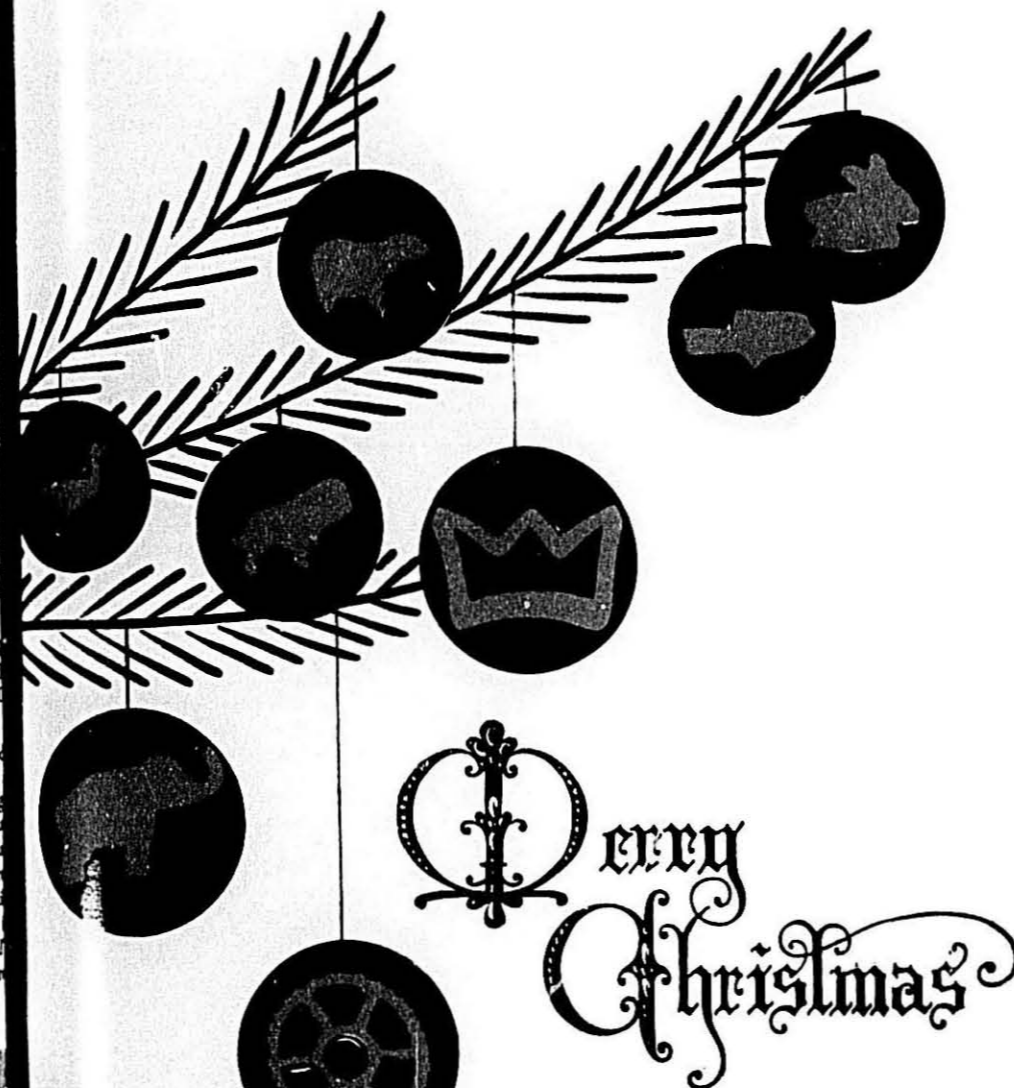
Someone finally did it: wrote a book on authentic Sicilian-American cooking. The title? The Godfather's Cookbook, subtitled "What you've always wanted to know about Sicilian cooking . . . but were afraid to ask" written by Joseph D'Amico. The Cookbook tickles your taste buds with names like "The Sicilian Banana Split", "The Godfather's Beef Roll (The Don's Delight)", "Depressed Meatballs", "Sicilian Fried Chicken", "The Secret, Sicilian, Tomato/Meat Sauce", or "How to Cook your Spaghetti the Right Way". From antipasto to zucchini, The Godfather's Cookbook demonstrates the influence of American cooking on the Sicilian immigrants during the 1920's and 1930's. All recipes are summed up in a final chapter: "How to Give a Sicilian Dinner Party and Survive", even the background music to play while dining. For the price, it's definitely an offer you can't refuse.

Paperback, retail \$2.00. Available in selected book stores or direct from the publisher: ENDECO, P.O. Box 930, Lemon Grove, CA 92043.

For the Trade only: The Godfather's Cookbook is available at 40% trade discount, 16 to a "package deal" for \$19.20. The Cookbooks are shipped postage paid with a guaranteed refund for undamaged books returned after 30 days. A free, self-mailing, fold-out, counter display rack furnished with each "package deal". Distributor discounts available on request.



THE MACARONI JOURNAL, DECEMBER, 1975



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



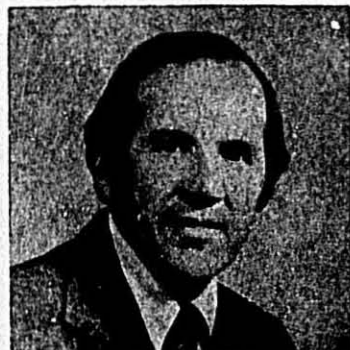
D. MALDARI & SONS, Inc.

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

DURUM SHOW REPORT



Nicholas A. Rossi

There was optimism among the large turnout to the Durum Show in Langdon, North Dakota in late October. Weather was good and relief that the announcement on the Russian Grain Agreement had put an end to embargoes. Speaker after speaker pointed out they would prefer the Government would stay out of the marketplace entirely, but there was realization that this is probably impossible in dealing with the Soviets.

Winners

A sample of Rolette Durum with 64-pound test weight won the professional class and the Sweepstakes Award given by the National Macaroni Manufacturers Association. The Durum King was Rick Lee of Lawton, who is presently a student at North Dakota State School of Science.

Scott Stromme, Devils Lake, won the 4-H classification with a sample of Ward. A dual entry by Bruce Haugen and Arnold Slaamot of Williston with Rolette Durum won in the Class of Future Farmers of America.

At the Beauty Pageant, tall, slim blond Patricia Creel, a Langdon High School Senior, won the title of Miss U.S. Durum.

Gene Kuhn Honored

Gene Kuhn, retired manager of Amber Mills, G.T.A., was presented a plaque for his leadership in the Durum Industry.

Secretary Robert M. Green and President Nicholas A. Rossi extended greetings from the National Macaroni Manufacturers Association. Green pointed out the need to stay competitive in the supermarket against

meat and potatoes, rice and beans, and other competitive products for a place on the dinner table. He pointed to the excellent job that industry promotion is getting through cooperation of the National Macaroni Institute, the Durum Wheat Institute and the North Dakota State Wheat Commission.

Nick Rossi said everyone in the industry wants free markets and we don't want to give our commodities away, but consumer advocates had brought about export controls that had ended with the announcement of the Russian agreement. He complimented the growers on producing a fine crop and urged they support expanded research necessary to keep durum competitive with other grains and macaroni products with other foods. He observed that each segment of the industry is a part of a chain that moves wheat from the field to the table and if one section has difficulties, we all have difficulties.

Durum Research

Dr. James S. Quick, Durum Breeder at North Dakota State University, reported on developments over the past several years and listed as new discoveries in 1975: (1) high quality semi-dwarfs; (2) medium height with good yield and quality; (3) earliness with yield and quality; (4) some susceptibility to herbicides; (5) improved gluten strength; (6) new variety releases including Mexicali 75 and another variety in Canada. He indicated that Crosby variety was best in the West; Botno and Rolette were more successful in the Upper Eastern area; and Ward and Rugby varieties in the Central districts.

In discussions later in the day, representatives from the Growers Association, the Wheat Commission, Millers' Federation, and National Macaroni Manufacturers Association were informed that each segment had agreed to support a \$30,000 annual expansion program for durum research. A group of North Dakota delegates were going to New York to contact exporters for their contributions to the effort.

Fortified Pasta

Dr. Orville Banasik, of the Cereal Technology Department, NDSU, reported on new pasta product develop-



Eugene W. Kuhn honored

ment with fortification to improve nutrition. Descriptions of the new products will be distributed for processing consideration.

Foreign Situation

Donald Novotny of the Foreign Agricultural Service, USDA, observed that we are living in an exciting time. The European Common Market system which protects European growers may be obsolete, but it is still an annoyance in international marketing. He described the International Grain Situation as production up and usage down, because of economic conditions. It was his feeling that the market will reduce extreme price gyrations, but that past practice of Russian buying had been disruptive. He felt the current agreement would smooth things out. The agreement calls for the purchases of 6 million tons of grain (probably half corn and half wheat) each year for a five-year period. If needs are greater than 8 million tons, then there would be Government consultation.

Joe Halow of Great Plains Wheat felt that the agreement would have more psychological significance than economic. He saw no relationship in making deals on grain that had connection with fuel and vice versa.

Domestic Analysis

William Dietrich of International Multifoods Corporation, noted that the United States grain supply is looked upon as residual for the rest of the world. He noted that production has increased year-by-year and urged the growers to take care of their domestic markets.

In analyzing 1972 Census data he observed that 90 percent of the raw material used was durum. Since then it has declined to 68 percent. Farina usage is up but not substantially. Mr. Dietrich felt that most substitution was in noodle products, products going into combination dinners and private label merchandise. He concluded that top quality macaroni and spaghetti products are doing well, while dinners are off.

Statistics

Mel Maier of the North Dakota State Wheat Commission in a report on the Durum Situation, estimated this year's production at 121,000,000 bushels with exports to take 30,000,000, domestic usage 40,000,000 and the July 1 carryover can be about 51,000,000 bushels. He noted that in 1972-73 the average price received for durum at \$1.94 was only 16¢ above hard red spring average. In 1973-74, the average price jumped to \$3.17 compared with HRS priced at \$1.28. This year it has been running at \$3.88 against \$4.41. With this much spread there will be continued blending.



Melvin G. Maier

Dr. Banasik gave the quality report on this year's crop noting that protein was down about one percentage point, but quality was good and more than two-thirds of the crop graded Hard Amber Durum.

Canadian representatives indicated that durum came through well this year and they have a big supply of 15 million bushels, up from 57.4 million last year.

Durum Situation

In millions of bushels

Year	Production	Exports	Domestic Use	July 1 Carry Over	Avg. Durum Price	Avg. H. Red Spring
1966-67	63	47	41	29	\$1.68	\$1.67
1967-68	67	31	41	24	1.69	1.44
1968-69	100	47	37	41	1.49	1.33
1969-70	108	34	35	80	1.31	1.39
1970-71	53	39	36	58	1.38	1.48
1971-72	92	44	37	69	1.31	1.30
1972-73	73	65	40	37	1.94	1.88
1973-74	79	42	47	28	6.17	4.28
1974-75	79	49	38	21	5.88	4.41
1975-76 (Est.)	121	50	40	51		

Planted Acres in 000's

Year	North Dakota	Other States	Total U.S.	% in N. D.
1966	2,120	371	2,491	85%
1967	2,353	473	2,826	83%
1968	3,012	703	3,715	81%
1969	2,831	635	3,466	82%
1970	1,812	355	2,167	84%
1971	2,592	351	2,943	88%
1972	2,333	259	2,592	90%
1973	2,680	362	3,042	88%
1974	3,190	647	3,737	85%
1975 (Est.)	3,910	689	4,599	85%

Top Foreign Markets

Country	1973-74	1974-75	July-Sept. 1975-76
1. EEC	24,803	13,143	5,643
Italy	11,512	4,579	1,120
France	4,826	4,579	0
Netherlands	4,182	2,117	2,580
West Germany	2,466	771	632
2. Algeria	20,194	19,635	7,211
3. Portugal	1,546	76	0
4. Japan	1,128	811	0
5. Spain	808	788	0

Durum Mill Grind

Production of straight semolina and durum flour and durum wheat grind for a series of crop years, as compiled by the Bureau of the Census, follows:

Year	Straight semolina and durum flour (1,000 cwt)	Durum wheat ground (1,000 bus)
1974-75	13,359	32,172
1973-74	15,234	35,546
1972-73	15,669	35,736
1971-72	15,475	33,066
1970-71	14,659	31,697
1969-70	14,572	31,672
1968-69	12,978	28,955
1967-68	12,507	28,038
1966-67	12,663	29,183
1965-66	12,009	28,848
1964-65	10,986	26,722
1963-64	9,921	24,455
1962-63	4,308	15,912
1961-62	9,755	19,824

Durum Production Record

Indicated durum production as of November 1, 1975 was 121,045,000 bushels, up from last year's 79,245,000. Yield per acre at 27 bushels was up 7 bushels from 1974.

Me. Maier, Administrator, North Dakota Wheat Commission, presented statistics on a ten-year perspective.

Arizona Now Durum Producer

Arizona is challenging Montana as the second largest durum producing state according to Charles Farr, extension agent at University of Arizona, Phoenix.

Upwards of 130,000 acres of irrigated land, mainly in Maricopa and Pinal counties, have been contracted for the growing of the fall-seeded Prodera and Cocorit varieties with yields averaging at least 80 bushels. With this production of about 10,400,000 bushels the output could equal almost ten percent of 1975 total. North Dakota production in 1975 is estimated at 103,680,000 and Montana at 8,710,000 bushels.

Prodera and Cocorit durum varieties are the results of Dr. Norman Borlaug's work in Mexico, Mr. Farr explained. Several seed and grain companies in Phoenix are participating in the acreage contracting.

Durum production in Maricopa county alone in 1974 was at least 2,800,000 bus, according to acreage data provided by Mr. Farr. An estimated 35,000 acres were harvested in the county and yields averaged at least 80 bus, ranging as high as 128 bus on the irrigated land. Major portion of the 1975 durum from the contracted acreage was sold for export.

The 1975 Arizona durum crop, comparable in size to that of Minnesota and perhaps even greater, confuses crop statistics in that the production

(Continued on page 10)

Hard Red Spring wheat production was 366,822,000 bushels compared to last year's 322,774,000.

Fall potato production was down to 268,583,000 bushels from 288,674,000.

Arizona

(Continued from page 9)

does not show up in crop estimates but the export sales do appear as exports of Foreign Agricultural Service and in weekly inspections of Agricultural Service.

Russian Agreement

The much heralded and long-awaited long-term grain pact between the U.S. and USSR was finally announced. The major points of the agreement held few surprises for anyone. The Russians agreed to purchase a minimum of 6 million tons of wheat and corn (total) from the United States annually for the next five years, and can buy as much as 8 million tons in any 12 month period without obtaining approval from the USDA. The U.S. has an escape clause in that if total grain supply (wheat and feed grain production plus carry-in) falls short of 225 million tons, the minimum no longer holds. As a comparison, the U.S. produced 226 million tons of grain last year, the lowest in 15 years, and will produce an expected 242 million tons of grain this year. So, the 225 total supply is an extremely low level. The grain will be priced on the world market and is not tied to any oil trade negotiations. The intent of the agreement is to smooth out severe price fluctuations that have occurred in the past when the Russians have bought massive amounts of grain in a short period of time. In practice, the success of the agreement will depend on the good faith between the two parties and not on a piece of paper. For example, the Russians have indicated they will spread their purchases more uniformly over the crop year, but this presumably not written down. Also, we have seen little yet that would prevent the Russians from reselling part of the six million tons of wheat back to U.S. customers in the world market in a year they may not need more grain.

Moratorium Lifted

The moratorium on this year's sales also officially lifted and the U.S. exporters are free to sell an additional seven million tons of grain to Russia for the balance of this crop year without approval of the USDA. There is some confusion in trade circles as to

the current status of Soviet Union purchases. Only about 17-18 million tons of grain purchases from all sources have been officially announced to the end of October. An additional 6 to 7 million tons of optional grain was rumored to have been sold, which would put total purchases in the 23-25 million ton range, near their projected port capacity. This has never been confirmed. Some administration officials are now projecting a potential 28-30 million ton total over a 14 month period. Whatever the solution, we are still anticipating additional Russian purchases from the U.S. amounting near or above the seven million ton level for the remainder of this crop year.

New Control of Farm Policy

Don Paarlberg, director of agricultural economics, U.S. Department of Agriculture, recently told the National Public Policy Conference that control of farm policy has been lost by old establishment. He defined this group as the farm organizations, agricultural committees of the Congress, the USDA and the land grant colleges.

Mr. Paarlberg described their old agenda of agricultural policy as concerned with commodities and influencing supplies and prices to the farmer's interest.

On the new agenda:

- Prices and specifically how to hold them down, an issue placed on the agenda by the consumers.
- The various food programs which now take up two-thirds of USDA budget, so that they are more a Ministry of Food than a Department of Agriculture. This issue was placed on the agenda by the hunger lobby.
- Ecological questions, placed on the agenda by the environmentalists.
- Rural development, primarily a program of the 80% of the rural people who are nonfarmers.
- Land use questions, raised by those who oppose the long-held idea that farmers have first claim on the use of land.
- Civil rights, advocated by those who challenge the white male tradition that has long characterized agriculture.
- Collective bargaining for hired farm labor, placed on the agenda by organized labor.

There are four possible strategies to the new agenda.

(1) We might deceive ourselves into thinking that nothing has changed.

(2) Another way to deal with the agenda is to challenge it head on with those who put it forward. The trouble with confrontation is that it deepens the issue and makes it more difficult for either party to retreat with honor.

(3) The new agenda might be accepted by surrendering traditional views.

(4) Cooperation may be called for.

Farm Bill of 1975

One type of cooperation was evident in the passage of the so-called emergency farm bill in the spring of 1975. The deal was worked out "You support our farm bill and we'll support your food stamps." The new boys got their food stamps but the old boys didn't get their farm bill.

There is another, more constructive form of cooperation. It consists of listening to the other party and reaching out for some degree of consensus. It involves restraining the appetite to some degree.

The Department of Agriculture has changed its official stance on a number of issues. The big commodity programs are a case in point.

The land grant colleges, in their teaching, their research, and their extension, have modified their offering in the light of changing times.

The farm organizations are also listening. For example, they are now willing to hear proposals which would extend collective bargaining rights to hired farm labor.

Who Will Control?

Back to the question: "Who is going to control the farm policy agenda and what subjects will be on it?" My answer to this question is "not only if the agricultural establishment takes a generally cooperative attitude can they expect to have much of a role in shaping the farm policy agenda and influencing the particular issues that appear thereon."

Durum Prices

Hard Amber Durum in the Minneapolis market hit a high of \$6.80 per bushel on August 21, a low of \$4.50 on June 18, 1975.

ASEECO BIN STORAGE SYSTEMS

BIN STORAGE

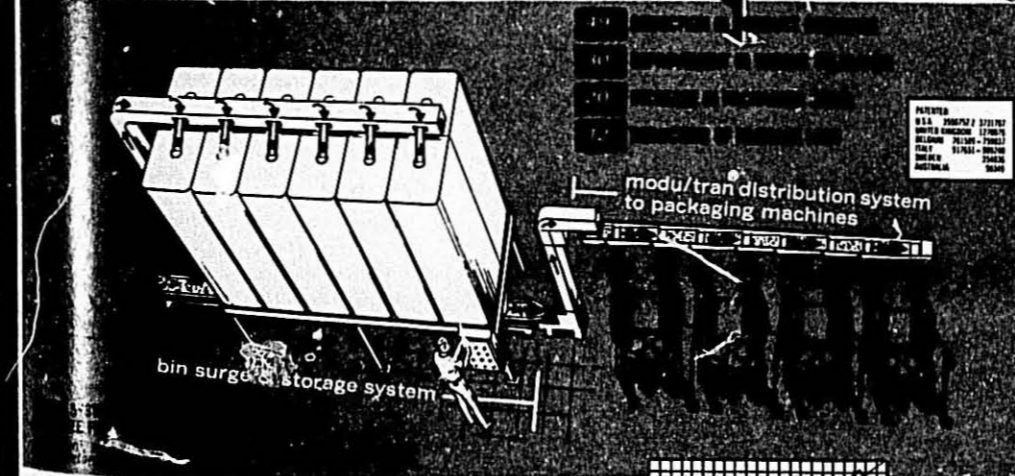
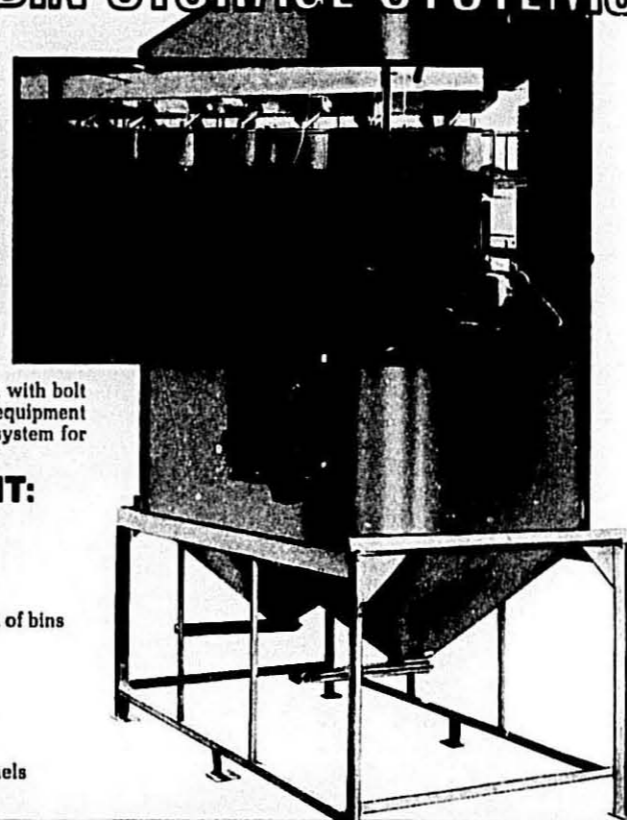
A fully automatic bin storage system for free flowing materials—Product is conveyed from processing into the Aseeco Bin Storage System by means of conveyors. The operator can fill any bin by operating a selector switch at floor level. In a few hours, when the bin is full and a signal is actuated, the 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 8887 W. Olympic Boulevard, Beverly Hills, Calif. 90211
(213) 682-8760 TWX 910-480-2101



Expanded Durum Improvement Research

Dr. James S. Quick, durum plant breeder at North Dakota State University, has prepared the following proposal:

It is understood and agreed that there is a need to expand the durum breeding effort at North Dakota State University since:

1. The durum breeding operating budget has changed very little during the past six years and is substantially less than what was available prior to 1969.
2. The total state appropriated funds are very small considering the value of the durum crop to North Dakota and the durum industry.
3. Durum varietal improvement has demonstrated large returns on investment (\$30 million increased new income in ND in 1974 alone due to the new varieties Rolette and Ward).
4. Increased competition from high yielding semidwarf bread wheats and possibly higher yielding, lower quality durums from private companies may reduce the acreage of good quality durum.

Plan of Action—1976

1. Provide a general increase in overall breeding effort (10-20 percent).
2. Begin basic research program in breeding methodology comparison (2-year program) for yield improvement.
3. Begin basic research program in heritability of semolina color and methodology determination for efficient incorporation (3-4 years).
4. Begin basic research program in another area of need (2 years).
5. Determine yield component variability and relationships.
6. Begin preliminary yield testing in northwestern North Dakota.
7. Begin F₂ plant testing for semolina color on about 2000 plants.
8. Increase F₃ and F₄ gluten testing program.
9. Initiate screening programs in one or more of the following areas: a) seedling vigor, b) post-harvest dormancy, c) salinity tolerance, d) root development, e) root-crown rot disease, f) ni-



Dr. James S. Quick

tritioral improvement, and g) pollen dispersal characteristics.

1977-80

1. Continue generally larger breeding program.
2. Complete basic research programs and utilize to improve breeding effort.
3. Incorporate additional yield factors into 2 new height classes, medium and semidwarf.
4. Continue larger early generation quality tests for semolina color and gluten characteristics.
5. Incorporate new variability from miscellaneous screening programs.

Cost Details

Approximate new expenditures for 1976:

Personnel	
Research Assistant	\$11,600
Graduate Research Assistant, Ph.D.	5,040
Graduate Research Assistant, M.S.	4,320
	\$20,960

Operating	
Part-time labor (summer)	\$ 2,400
Part-time labor (Sept.-May)	1,800
Supplies and Equipment	2,800
Travel and per diem	600
Miscellaneous	440
	\$ 8,040
Total new expenditures	\$29,000

Approximate present expenditures for 1976:

Personnel	
Technician	\$12,000
Graduate Research Assistant	3,900
	\$15,900

Operating	
Part-time labor	\$ 3,500
Supplies and Equipment	1,800
Travel and per diem	1,500
Miscellaneous	200
	\$ 7,000
Total present expenditures	22,900

Total funds for 1976	\$51,900
-----------------------------	-----------------

Benefits

Benefits would be 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 would be immediately utilized in the breeding program and determine the effectiveness and success in producing new varieties. The development of new varieties is a long-term effort requiring 8-10 years from the last cross.

The increased funding will help guarantee a continuous succession of improved varieties which will encourage larger production and a continuous supply of high quality durum at a competitive price.

Langdon Branch Station

The Langdon Branch Station, located in the upper northeast corner of North Dakota, near the Canadian border, began operation in 1908. The station is 320 acres in size and facilities include a modern seed cleaning plant with storage for breeding and foundation seed production. In addition to durum other major cash grain crops grown include hard red spring wheat, barley for malt and feed, oats and flax.

Because it is in the "durum triangle" the environment experienced at the Langdon station serves as an opportune place to evaluate materials in the durum breeding program.

The role of the station since the late 1950's has been directed toward crops research, specifically in variety development, crop culture, practical research, and the dissemination of new crop varieties through producing breeder and foundation seed.

Durum selections made from early generation nurseries are planted in preliminary yield and performance test plots where the new materials are evaluated and compared with old varieties as to disease reaction, agronomic characteristics and yield. Superior types obtained from these preliminary tests are then grown in increase plantings allowing the breeder to obtain sufficient seed to plant his material at several other locations in order to obtain data over a wide range of environments.

(Continued on page 13)

INTERNATIONAL EXHIBITION
Packing and Packaging
Mechanical Handling
Food-Processing Industrial Machinery

Milan
16-22 February 1976
Milan Fairgrounds

Section:
MACHINERY FOR THE FOODSTUFFS INDUSTRY

Machinery and equipment for the:
soft drinks industry
confectionery industry
dairy industry
milk and fats industry
production of bread "gritain", biscuits, etc.

Section:
PACKING AND PACKAGING

Section:
MECHANICAL HANDLING

Offices IPACK-IMA - 20149 Milano (Italy)
via C. Ravizza, 62
Tel. (02) 49.52.25-49.53.85
Telex 35124 Ipackima

Higher Postage Rates
have boosted subscription costs, but it's still the best reading in the field. Place your order now!

The MACARONI JOURNAL
P.O. B. X 336
PALATINE, ILLINOIS

Please enter one year subscription:
 \$10.00 Domestic \$12.50 Foreign

Name _____
Firm _____
Address _____
City and State _____ Zip _____
Renewal _____ New Subscription _____

JACOBS-WINSTON LABORATORIES, Inc.

EST. 1920

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

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

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

Langdon Branch Station

(Continued from page 12)

The most advanced materials are then planted in drill-strip field tests where they are evaluated against all the commercially-grown varieties. Selections found to have superior characteristics are placed in small field increases where they are repurified and readied for release to the farm growers.

Robert Nowatzki is the station superintendent and president of the annual U.S. Durum Show.

Solar Drying of Grain

Solar energy promises to be an important source of heat for low-temperature drying of grain, but the most efficient equipment and operating procedures are still to be determined.

This is the consensus of agricultural engineers from seven Midwest universities and two laboratories of USDA's Agricultural Research Service who used solar energy as the primary source of heat in drying corn, grain sorghum, and soybeans last fall.

Low-temperature drying of grain in the bin is an energy- and cost-saving alternative to conventional high-temperature drying in the northern and central parts of the Corn Belt. Air is heated about 7°F. above the temperature of outside air, usually by electric heaters and heat from the motor of the fan that moves air under the bin's false floor and upward through the grain. Solar heat partially or completely replaced that produced by electric heaters in the tests. Moisture content of the grain can be lowered from about 24 to 15 percent in 30 to 45 days.

Grain drying appears to be an ideal use of solar energy, the engineers agreed. Simple collectors often furnish enough heat for low-temperature drying, and heat storage is not necessary because a continuous flow of heated air is not needed. Several days without sunshine are no problem unless outdoor temperatures are unusually high.

Further studies are needed to determine whether dryers with solar collectors should operate continuously, during daylight hours only, or just on sunny days.

More Research Needed

Additional research is also needed before comparative costs of low-temperature drying with solar heat, other sources of heat, or natural air can be estimated accurately. The engineers emphasize that saving energy may be more important than lowering operating costs by substituting solar energy for fossil fuels.

The studies were supported by funds made available by the National Science Foundation and administered by ARS. The research was coordinated by George H. Foster of the U.S. Grain Marketing Research Center, at Manhattan, Kan. and Dr. Robert M. Pert of Purdue University, West Lafayette, Ind.

In contrast with the low-temperature system, most of the nation's corn crop is now dried in batch or continuous-flow units at high temperature—180 to 250°F. Drying about 70 percent of the 1973 crop required the equivalent of 609 million gallons of liquefied petroleum gas.

The engineers conducted what they called proof-of-concept studies, to determine the potential for solar drying of grain with present technology. The idea is not new. It was used successfully almost 20 years ago by Michigan and by ARS and Kansas engineers but was impractical then because low-cost gas was readily available. Most of last fall's tests were started later than normal for in-bin drying, under weather conditions less than optimum for low-temperature systems.

Commercial Solar Collectors

The researchers evaluated two commercially available solar collectors in Ohio, Indiana, Illinois, Iowa, Minnesota, and Kansas, as well as experimental collectors installed on the side or roof of the grain bin in Illinois and South Dakota.

One commercial collector is quarter-set-shaped or semi circular, 82 feet long, and constructed of three layers of plastic—the top clear, the middle translucent, and the one nearest the ground opaque. The other one is 100 feet long and consists of a black plastic tube inside a clear plastic tube. One or two collectors per bin were used, depending upon bin size and amount of grain. A fan to inflate the collectors in addition to the one

used for aerating the grain was used with two collectors.

The experimental collectors, usually of galvanized steel, were bare plates, covered plates, or suspended covered plates on bin side. In one installation by Illinois engineers, the bin roof was converted to a bare plate collector, with heated air collected under the roof and above a false ceiling.

An ARS study in Iowa, comparing seven experimental solar collectors, indicated that the most efficient collector should have southern exposure, the collecting surface adjustable to receive the sun's rays at right angle, the collector covered rather than bare, the collector plate black with a rough surface, and heated air drawn from both sides of the collector plate.

Other observations by the engineers:

A stand-by source of supplemental heat is essential if drying is started late in the season. Without it, moisture content of the grain may increase in wet or humid weather. The Indiana test site had only 60 hours of clear weather in more than a month last November and December.

From 30 to 55 percent of available solar radiation may be captured for heating air—progressively less in late fall and early winter.

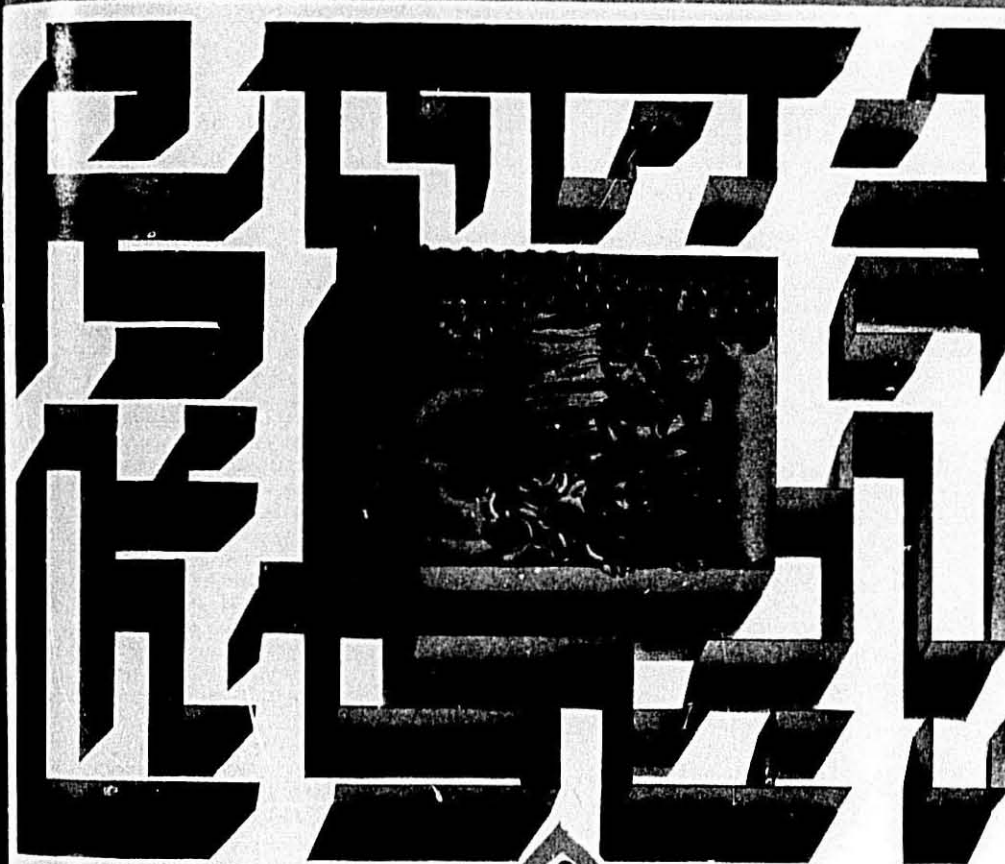
Under favorable weather conditions in the Kansas test, the grain sorghum in the solar-supplemented bin dried to 15 percent moisture in two weeks while three weeks were required in a similar lot dried with natural unheated air.

The maximum temperature rise in solar-heated air for a given collector design on a sunny day depends on time of year—in Ohio as much as 35°F. in October but 15°F. in January.

Considerable amounts of heat are stored in the grain after sunset, and some drying occurs as late as 1 or 2 a.m. when the collector fans continue to run.

Corn was successfully dried with solar heat in southwest Minnesota when the mean outside air temperature averaged only 29.3°F.

When drying could not be completed because of too few sunny days late in the season, Iowa engineers periodically aerated the grain over winter to prevent spoilage and completed drying between March 19 and April 22.



No Puzzle.

It's no puzzle. Superior pasta products begin with superior ingredients. ADM pasta—perfect ingredients. Milled from the finest Durum into golden Semolina and flour. Clean and consistent.

For the quickest route to outstanding pasta products—start with ADM.



ADM MILLING CO.

4550 West 108th Street, Shawnee Mission, Kansas 66211
Phone 913-381-7400

Good Manufacturing Practices For Macaroni and Noodle Products

Highlights of Comments

by Harold Salwin Chief, Protein and Cereal Products Branch,
Division of Food Technology, Bureau of Foods,
Food and Drug Administration

I want to thank you for this opportunity to attend your meeting and to discuss good manufacturing practice regulations for the macaroni and noodle industry. You may be wondering, first of all, why your industry is being singled out for coverage by a GMP regulation. The fact is that it is not being singled out at all. It is FDA's intention eventually to cover all important segments of the food industry. The order in which they are being approached is dictated by a number of considerations such as the relative priorities of these and other assignments and the availability of appropriate manpower within the agency.

The purpose of the GMP regulation is to spell out the responsibilities of industry for following a code of procedures for manufacturing products that are suitable for food use from the standpoint of both sanitation and safety. The provisions of the regulation which the Commissioner considers to be essential for protecting consumers are mandatory while nonessential provisions are presented as recommendations.

Section 701(a) of the General Administrative provisions of the Federal Food, Drug, and Cosmetic Act grants authority to promulgate regulations for the efficient enforcement of the Act. Under that authority the Commissioner is issuing GMP's to promote the efficient enforcement of section 402 of the Act which pertains to food fit and safety. According to section 402(a) (4), "A food shall be deemed to be adulterated if it has been prepared, packed, or held under insanitary conditions whereby it may have become contaminated with filth, or whereby it may have been rendered injurious to health."

Manufacturer is Responsible

The manufacturer, of course, has the ultimate responsibility for the wholesomeness of his products. I should point out, however, that under the GMP concept, all production

from an establishment not operated in accordance with the mandatory provisions of established good manufacturing practice regulations is adulterated within the meaning of section 402(a) (4) of the Act.

The following GMP's are presently in Title 21 of the Code of Federal Regulations:

Part 128

The "umbrella" GMP

Part 128a, Subpart A

Smoked and Smoke-Flavored Fish

Part 128a, Subpart E

Frozen Raw Breaded Shrimp

Part 128b

Low-Acid Canned Foods

Part 128d

Bottled Water

The following has been published as an order in the Federal Register:

Part 128c

Cacao Products and Confectionery (40 F.R. 24162)

The following has been published as a proposal:

Part 952

National Shellfish Safety Program (40 F.R. 25916)

In addition, work is proceeding on developing regulations for manufacturers of the following products:

Bakery foods

Macaroni and noodle products

Prepared mixes

Tree nuts and peanuts

Pickles, fermented and acidified foods

Fresh and Frozen fish

No Adversary Role

There may be some apprehension on your part as to what is in store for you. I should point out that in issuing GMP regulations, FDA is not playing an adversary role any more than it assumes such a role in other rule making activities. Fortunately for the macaroni industry, there should be no surprises. As you know, the order establishing a GMP for cacao products and confectionery was published in the Federal Register on

June 4, 1975. If you will take the time to read that notice, I believe that you will have a rather comprehensive and reliable indication of what will be forthcoming for your industry. If you are interested in the background of the cacao products and confectionery regulation so as to understand the rationale for its various requirements and for the manner in which they are written, I would suggest that you read the preamble to the regulation as well as the regulation itself. The regulation covers two pages of the June 4 Federal Register and there are eight pages of preamble. If you are still alert at that point and care to go one step further you might also read the regulation that was proposed for cacao products and confectionery in the Federal Register of November 23, 1973, and make a side-by-side comparison with the final order. I believe that you will then acquire an appreciation for the reasons why the various requirements are written as they are.

Critical Control Points

The GMP regulation identifies critical control points in the manufacturing process—those points that are critical to the safety and sanitary quality of the product. In recent years FDA has complemented its traditional-type inspections in search of violative conditions and products with a newer approach referred to as Hazard Analysis and Critical Control Point Inspection. The HACCP approach determines what points in the process are critical and how well the firm is controlling them. Past performance is evaluated by reviewing the firm's quality control records. HACCP inspections are preventive in nature in that they attempt to bring potential trouble points to the attention of management for before-the-fact corrective action. The continuing development of this trouble prevention approach to plant inspection is an important part of the FDA program and it will be used to make sure the GMP regulations are being closely

followed by management. There is basically no distinction between critical control points and GMP. The failure of a manufacturer to identify critical control points and to adopt good manufacturing practices which control these points may result in violations of section 402(a) (4) of the Act. Since HACCP inspections depend more on the review of the firm's records than do traditional inspections, FDA must solicit the firm's cooperation if the HACCP inspection approach is to be successful.

The general content of a GMP is intended as an extension of the "umbrella" GMP. Each of the eight sections of the GMP for cacao products and confectionery corresponds very closely with a section in the "umbrella" GMP, but each section includes provisions which are intended for specific application to the processing of cacao products and confectionery. For example, one section defines such terms as cacao products, confectionery, lot, return, rework, and waste—all terms that are commonly used in the affected industries. Another section has requirements for equipment and utensils, including those used for pasteurizing operations and for the holding of raw materials and products capable of supporting the growth of microorganisms. Other sections deal with plants and grounds, with personnel sanitation facilities, and with the responsibility of management in enforcing sanitary practices by employees.

Handling Raw Materials

A section on the handling of raw materials is included with the intent of controlling certain health-related problems which have been of real concern to the FDA. One such problem is the contamination of ingredients by pathogenic microorganisms. Specifically, this section calls attention to the pasteurization requirements for milk and egg products. It also includes precautions which must be taken with materials that are susceptible to infestation or contamination by animals, microorganisms, aflatoxins, or extraneous material. Other provisions cover the subjects of processing operations, coding, warehousing and distribution, and records. The regulation requires the manufacturer to retain suppliers' warranties on raw materials and to

keep records showing the results of examinations of materials, pasteurization treatments, and initial distribution of finished products.

In the same month that the confectionery GMP appeared in the Federal Register (June 1975) the Macaroni Journal included an article by your Director of Research, James Winston, on the elements of good manufacturing practices for the Macaroni and Noodle industry. Jim pointed out in the article that there is nothing the trained food and drug inspector or laboratory scientist can do that the food manufacturer cannot do for himself. The article presented a comprehensive list of manufacturing practices under the general headings of raw materials, manufacturing and processing conditions, finished products, coding and inventory, and sanitation. I reviewed his elements of good manufacturing practices in detail and found that, with only two exceptions, each of them has an equivalent, or nearly equivalent, counterpart in the confectionery GMP. The two exceptions are those dealing with an approved source of water and with the use of food additives. I believe that most responsible manufacturers have specifications which are at least as tough as FDA's.

Notices of Judgment

During the last three years there were 29 notices of judgment involving macaroni and noodle products. Insanitary conditions of processing or storage and the presence of filth constituted the bulk of the violations. Some products were contaminated with pesticides or contained insects. In a number of cases the circumstances were such as to warrant prosecution. During the same period there were a number of recalls and several of these involved contamination with Salmonella. The potential for bacterial contamination of macaroni and noodle products is regarded seriously even though it may be encountered less frequently than some of the other types of adulteration.

During this year the Journal of Food Science carried two reports of studies of the growth and survival of Staph. aureus in macaroni and noodle products and of the persistence of Staphylococcal enterotoxins. One of the reports by workers at North Dakota State University was sponsored

in part by your association. It quoted results of a 1974 Food and Drug Administration survey of products from retail outlets. The positive findings for Staph. aureus represented about 2.7 percent of some 1500 packages of macaroni and about 5.6 percent of some 1400 packages of noodles.

The other Journal of Food Science paper reported research by the Food and Drug Administration with results very similar to those reported by the North Dakota State University workers. Staphylococcal enterotoxins are extremely heat stable. The FDA workers analyzed toxic samples after they were cooked and recovered enterotoxin in one out of three trials. They showed that the enterotoxins can be formed in wet warm dough but stated that the possibility of this occurring during usual conditions of manufacture is fairly remote because of the more rapid drying of the dough in the commercial operation. The authors stated that the total number of S. aureus cells found in fresh commercial samples was generally much below the population level associated with toxin production. Nevertheless, they cautioned that although the hazard of staphylococcal enterotoxin formation in domestic pasta would seem to be fairly remote the hazard potential remains. The important conclusion reached by the authors is that macaroni and noodles can be manufactured free of S. aureus with modern equipment and under good manufacturing practices such as those advocated by Winston.

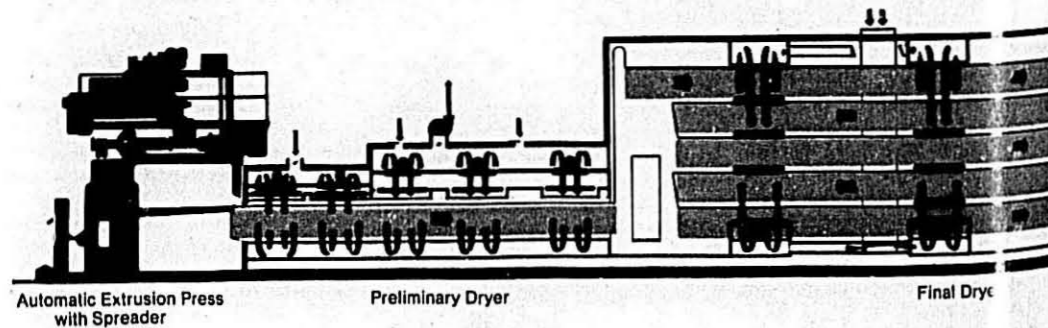
Toxicogenic Molds

The Food and Drug Administration recently investigated the potential for the development of toxicogenic molds in pasta products during the process of drying. The studies were conducted under contract by Food Technology Laboratory in Chicago and by Buffalo Testing Laboratories in Buffalo. The products did support the growth of molds under adverse conditions of temperature and relative humidity but, fortunately, the potential for the development of mycotoxins was found to be rather small.

We recognize that positive acceptance of the GMP's by the trade associations will contribute greatly to their successful implementation. We solicit drafts of GMP's and advice

(Continued on page 20)

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

EXHIBITOR
PACK TIME
78
MILANO
February 10-22, 1975
THE MACARONI JOURNAL

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 pacesetting Pasta Dryers.

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



Plate Counts Slashed.



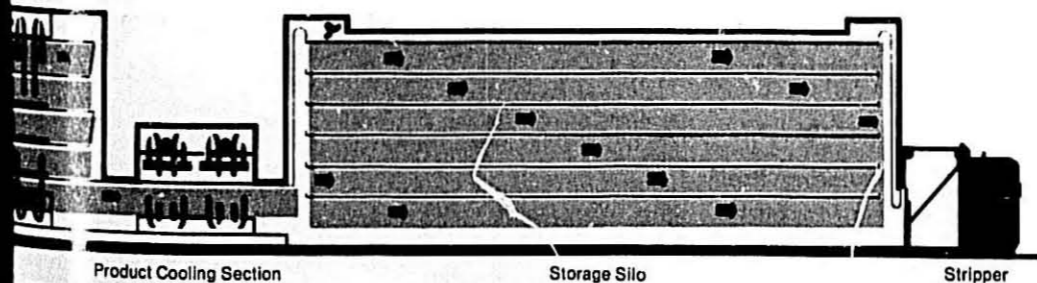
Side Panels Open for Easier Cleaning Lock Tight to Conserve Energy.



Cooking Qualities Improved. Stickiness Eliminated.



Drying Time Chopped.



Braibanti

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

Good Manufacturing Practices

(Continued from page 17)

from trade associations and others who are particularly knowledgeable. We would urge you to prepare a first draft of a GMP and to come in for discussion soon—if possible, within the next six or seven weeks. We need your advice in pin-pointing the health hazards and in identifying the sources of filth.

In addition, we would welcome your views on the potential environmental and inflationary impact of the regulation.

Summary

In summary, then, GMP's merely set forth in black and white what the agency should reasonably expect of the manufacturer. One short-range effect of the GMP is that some manufacturers may be required to institute some changes in operating procedures, in plant layout, in equipment, or in record keeping. On the other hand there are long-range benefits for Government and industry and for consumers as well. The hoped for effect on the Government is that adherence to the GMP by industry will permit a reduced level of surveillance activity and of regulatory action by the FDA. As for the industry, the long-range effect of the GMP should be fewer management crises and a reinforcement of consumer confidence in the wholesomeness of macaroni products. It follows naturally then that the increased efficiency of Government operations and the greater assurance of the wholesomeness of processed foods are obvious benefits for the consumer.

The FDA is Regulating Itself

The Food and Drug Administration has gotten together a bunch of new regulations for it to follow itself—designed to encourage greater public access to the agency by making its administrative rules easier to find, to read, and to understand. The new regulations spell out in detail the procedures under which citizen petitions are submitted to and considered by FDA; the justification for, and conduct of, various kinds of hearings; rules concerning standards of conduct and conflict of interest for agency employees; and rules governing docu-

mentation of meetings and public calendars of key officials.

The task of revising administrative regulations was begun in 1973, and involved assembling, clarifying and codifying hundreds of agency practices and procedures that had been developed over the years in a piecemeal fashion to meet immediate needs.

Cereal Foods World

Cereal Foods World, published by the American Association of Cereal Chemists, pictures pasta on the October cover. Four feature articles are "Today's Pasta Marketplace" by R. M. Green, N.M.M.A., "Protein Enrichment of Pasta Products" by O. J. Banasik of North Dakota State University, "Uniqueness of Pasta" by R. R. Matsuo, Canadian Grain Commission, and "Whey Protein Fortification of Macaroni" by T. S. Seibles of the USDA.

Whey Protein Fortification

Scientists at the USDA Eastern Regional Research Center in Philadelphia have developed a heat-coagulated cottage cheese whey protein for use in manufacture of macaroni with high protein quality and quantity without process changes. The method is described in Food Processing magazine for October in an article entitled: "Heatcoagulated acid whey protein—key to fortification of pasta". Conclusion is that protein content is increased from 13 to 20% and PER from 0.8 to 2.5.

In Cereal Foods World, published by American Association of Cereal Chemists (October issue), Thomas S. Seibles, assistant director of the Eastern Regional Research Center, describes "Whey Protein Fortification of Macaroni" in another explanation of the method.

Food From Crude

The Wall Street Journal recently wrote about Torutein, the first successful food product derived from petroleum. It is sold only in the United States as a nutritional supplement and flavor-enhancer for such processed foods as meat patties, pasta, baked goods, frozen pizza and sauces.

Torutein is torula yeast grown on ethyl alcohol made from ethylene, a petrochemical. Small scale commercial production began last May at a Hutchinson, Minnesota facility at a cost of \$10 million, a ten-year long research effort.

R. H. Leet, President of Amoco Foods Company says about 3 percent of the world's current annual oil production could meet the protein needs of everyone on earth for a year. In their talks with food processors, Amoco's salesmen do not stress the yeast's nutritional value as much as its ability to cut costs by extending meat or substituting for egg yolks. They also emphasize its long shelf life, its lack of an aftertaste and its ability to enhance color, texture and flavors. At 42 cents a pound at the factory, Torutein offers only a slight price advantage over its nearest competitor, soy isolates, concentrated soy flour that is 90 percent protein. Some food companies contend that soy isolates are more versatile than Torutein, which is 53 percent protein.

All the same, Torutein has some satisfied customers. Morton Frozen Foods, Inc. recently started using the yeast to make high-protein macaroni for a federally funded school-lunch program in the New York metropolitan area. By using the yeast enriched macaroni, Morton can meet federal nutrition standards for school lunches with less meat or cheese, enabling it to cut costs by 1 to 2 percent. "Probably, on school lunches are small anyway," Robert Baldwin of Morton says, "so that 1 or 2 percent is worth fighting for."

Egg Production

The nation's laying flock produced 5,263 million eggs during September—1% more than in September, 1974, according to the crop reporting board. Layers on farms October 1, 1975 totaled 277 million, down 1% from the 279 million a year earlier, but 2% above a month earlier. Rate of lay on October 1 averaged 63.3 eggs per 100 layers, up from 62.2 a year earlier, but down from the 64.3 on September 1, 1975. Egg type chicks hatched during September 1975 totaled 34.2 million, up 7% from the 32.1 million produced a year ago. Eggs in incubators on October 1, 1975 at 31.0 million, were 2% below a year ago.

Comments on Microbiology

The Association of Operative Millers Committee for Food Protection and Sanitation requested a paper prepared by Kent L. Harris, John R. Klein and Robert L. Delmas of O'D Kurtz Associates of Baltimore, Maryland. In their bulletin of August, 1975, the complete transcript of "Some Concepts in Cereal Sanitation Microbiology" appears.

Bacteria from the Beginning

Here are highlights: "Long before man knew bacteria existed, they 'new' he existed. They have lived in him, on him, around him, and with him from the beginning. Some have helped man, some have killed him. It has been less than 100 years since man discovered the bacteria, and since then he has been engaged in a hectic race to catch-up, to understand something which has plagued him for thousands of years. Even our word 'plague' comes from the bacterially caused black-death during the Middle Ages. Man, who has spent the better part of his existence conquering rivers, mountains, forests, animals, and other men—has nonetheless failed to subdue the smallest of them all.

"It comes as no surprise today to be told that all food raw materials contain microorganisms.

"Meanwhile, the dirt on corn, heavily laden (but not necessarily contaminated) as it is with bacteria, molds (not to ignore insect fragments and various larger animals) some of which have a disease or toxin-producing potential, is a matter of potential significance. But even weeds to put the matter in perspective.

"Is the bag, paper, or can going into boiled pudding for paper, canning or dusting? Dusted raw on candy

"Let one think that the above is so far fetched, let us come right into specific cereal uses themselves, and remember that processed corn can be used for baking, for brewing, and for confectionery trays. Wheat ends up as starch paste, food or feed. There is corn starch for cereals, corn starch for thoroughly-baked foods, corn starch for lightly-

cooked fillings, and corn starch to be used as drug tablet binders.

What Are Safe Levels?

"What are safe levels is a question of prime concern. In the first place, many diseases do not become diseases unless the animal receives an infective dose of the bacteria, or viruses, or even molds. Secondly, when dealing with organisms that are as abundant as the bacteria, keeping them out of food or down to safe levels means stopping them wherever you can. It is bad food processing technology to let contamination develop and count on stopping it somewhere down the line.

"The question of how much is too much is a serious biological public health, regulatory and food technology matter. Consider, for example, a Standard or Total Plate Count analysis performed to estimate the total bacterial flora present. Such a test can be completely void of meaning or can be a valuable tool to the miller or buyer. Its immediate limitations are that it in no way tells the scientist what types of bacteria are present. It is strictly a quantitative test.

"The total bacteria count begins to be of value when done regularly and put in a perspective.

Pathogens

"At the other end of the bacteriological yardstick we find those organisms which leave little or no room for interpretation of significance. These are the pathogens, the microorganisms which are known to cause disease in man. Among these, Salmonella, Shigella, the Staphylococcal, Clostridial and the Streptococcal groups are the most serious in foods.

"When one asks a specific question such as what is the significance of E. coli and coliforms in general? One is usually asking a regulatory question. How much is too much to FDA? Ask a FDA food man if Proteus spp. are 'permitted' in starch and he may well answer, 'No, none are permitted.' Ask him if some may occur from time to time in average corn or wheat or soy starch or flour and the answer is 'Yes, they occur'. Ask him if action will always be taken when they are found,

and the answer is, 'No, not always. It depends on where, in what numbers, what use is to be made of the product'. This is not gobble-degook. It is sound biology-technology.

So Where Are We?

"So, where are we? In discussing the significance of bacterial counts in cereal foods and food products, one can immediately go in several directions. Certainly there is meaning to be attached to numerically high findings. Even without defining 'high', one reaches a point where the findings themselves are so high as to produce a degree of relevance in interpreting the sanitation picture and thus attain some significance. The FDA Defect Action Levels are such limits. So gross as to be unchallenged.

"Meanings, or sanitation significance, can be one thing to the regulatory official who is searching for a finding that will prove his suspicions that a food has a particular type of contamination. It may turn in quite another direction for a control analyst who is trying to clean up a water supply, or searching for a breakdown in a heat processing operation, or looking for airborne contamination from a nearby environmental nuisance.

"Meanings are quite another thing to Purchasing, to Sales, to Quality Assurance. And then the telephone rings and someone says 'We've got a car of soy meal on the track ready to go. When can you release it?' And whether it goes or doesn't go on one probing is not easily reduced to a decision based on SPC alone. Try not to place your findings in such an impossible perspective."

The entire article is recommended reading.

Egg Beaters Suit

United Egg Producers cooperative and J. B. Gay & Son, a Georgia egg company, filed a \$50 million suit in U.S. District Court against Standard Brands, New York, manufacturer of the egg-substitute product, Egg Beaters.

The suit charged Standard Brands used false and deceptive advertising

(Continued on page 24)

Peavey doesn't quit working until dinner is served.



When the durum wheat is still growing in the North Country, Peavey goes to work. Checking field samples for quality and anticipated yield. Then, we collect and move the harvest through grain elevators and carriers to the mills. Not just flour mills. Durum mills.

There the grain is processed into the finest King Midas Semolina and Durum flours. By this time, our sales offices are already matching our supplies with your requirements. So you get the finished flour where you want it. When you want it. But we don't stop there. Our Technical Center continues to look



for ways to make our products perform a little better. And to make our systems work a little faster. You've got a good thing going in King Midas Semolina and Durum flour. Because we don't stop working until dinner's on the table.

Peavey Semolina and Durum flour.

Sales Offices:
Minneapolis, Minnesota (612) 370-7840;
White Plains, New York (914) 694-8773;
Chicago, Illinois (312) 631-2700

Peavey

Industrial Foods Group

Egg Beater Suit

(Continued from page 21)

and unfair competitive practices in an attempt to decrease egg consumption and increase sales of its product. Promoting the fact that Egg Beaters is cholesterol-free is a subtle implication that the cholesterol in eggs is harmful, a fact that hasn't been established scientifically, the plaintiffs maintain.

Spokesmen for Standard Brands refused to comment until they had received formal notice of the suit.

The funds to finance the legal costs of the \$50 million suit by J. B. Gay & Sons and the United Egg Producers against Standard Brands were raised by voluntary contributions from egg producers and packers from all over the country, according to Richard Kathe, president, American Egg Board. They are determined to follow through in the suit, he added. AEB is not a party in the suit.

OSHA Lists Most-cited Violations

OSHA has issued lists of the 25 standards most often cited as the basis of alleged violations found during general industry, construction and maritime inspections in 1974.

OSHA officials stated that even though violations of the National Electrical Code head the general industry list and are high on the construction industry list, this can be misleading because many standards are part of the Code. They include such requirements as the use of grounding type attachments plugs, covers on electrical junction boxes, and use of improperly spliced extension cords.

The lists will enable employers in the industries covered to give priority attention to eliminating any hazards covered by the standards—most of which OSHA officials say are common sense rules that can be easily checked.

The lists account for more than one-half of all 1974 violations cited in both general industry and construction, and more than one-third in maritime. This demonstrates, OSHA officials noted, that greatly improved job safety and health conditions can easily be achieved by most employers.

The attached lists show, in descending order of number of violations, the section number of standards in each industry category.

STANDARDS MOST FREQUENTLY VIOLATED DURING 1974

General Industry Standards: Part 1910, Title 29, Code of Federal Regulations

Standard	No. Violations		Title
	Serious	Nonserious	
1910.309(a)	194	32,426	National Electrical Code
219(d) (1)	45	6,509	Pulley guarding
215(a) (4)	15	6,380	Work rest spacing from grinding wheels
252(a) (2)	13	6,161	Storage and handling of compressed gas cylinders
212(a) (1)	97	5,308	General machine guarding
37(q) (1)	4	5,284	Exit marking
23(c) (1)	53	5,098	Guarding open-sided floors and platforms
219(e) (1)	13	5,016	Guarding horizontal belts and ropes
22(a) (1)	67	4,960	Clean, sanitary work areas
157(d) (3)	12	4,972	Maintenance of portable fire extinguishers
212(a) (5)	15	4,806	Exposed fan blades
215(a) (2)	13	4,364	Guard design—abrasive wheel machinery
242(b)	23	4,131	Excess pressure—compressed air cleaning
212(a) (3)	159	3,526	Machine guarding at point of operation
219(e) (3)	15	3,612	Guarding vertical end inclined belts
215(b) (9)	6	3,329	Abrasive wheel guarding
22(d) (1)	5	3,282	Marking-floor loading protection
157(a) (5)	6	3,223	Mounting portable fire extinguishers
213(h) (1)	56	2,739	Guarding radial saws
22(b) (2)	12	2,715	Marking aisles and passageways
157(a) (2)	10	2,637	Location of portable fire extinguishers
23(d) (1)	8	2,620	Stairway railings and guards
219(f) (3)	25	2,465	Guarding sprockets and chains
106(e) (2)	34	2,442	Storage and use of flammable and combustible liquids
132(a)	33	2,010	Use of personal protective equipment

Construction Standards: Part 1926, Title 29, Code of Federal Regulations

Standard	No. Violations		Title
	Serious	Nonserious	
1926.25(a)	53	2,210	Housekeeping
500(d) (1)	461	1,572	Guarding open-sided floors, platforms, runways
500(e) (1)	51	1,409	Stairway railings and guards
100(a)	23	1,143	Wear of hardhats
401(a) (1)	12	1,094	Grounding of portable and/or cord and plug-connected equipment
150(c) (1)	8	1,087	Sufficient portable fire fighter equipment
400(a)	7	1,036	National Electrical Code
500(b) (1)	103	914	Guarding floor openings and holes
350(a) (9)	28	922	Upright storage of compressed gas cylinders
152(a) (1)	8	859	Approved containers for flammable and combustible liquids
450(a) (10)	15	865	Securing of portable ladders
451(a) (4)	88	786	Guardrails and toeboards on scaffolds
450(a) (9)	16	818	Ladder extension above landings
50(d) (1)	3	704	Approved and accessible first aid supplies
50(f)	3	701	Posting of emergency medical telephone numbers
28(a)	211	420	Wear of personal protective equipment
401(j) (1)	9	619	Guarding temporary lights
652(h)	59	498	Adequate exits from trenches more than four feet deep
450(a) (2)	4	550	Defective ladders prohibited
651(i) (1)	56	429	Storing and retaining excavated material
602(a) (9)	9	445	Audible alarms on moving bi-directional machinery
304(f)	9	425	Safety requirements for woodworking machinery
402(a) (8)	12	416	Protection of flexible cables and cords
506(c) (1)	48	367	Guarding wall openings
350(a) (1)	6	403	Valve protection caps in place on compressed gas cylinders

Buhler-Miag to Build

Curt F. Schneider, president of Buhler-Miag, Inc., Minneapolis, manufacturer of food processing plants and bulk conveying systems has announced the signing of a purchase agreement for 20 acres of industrial land in the City of Plymouth, Minnesota, 5 miles west of its present main offices located on Wayzata Boulevard.

Immediate plans for the firm include construction of a manufacturing and assembly plant with related offices, steel and parts storage. Phase

one of the project will add 45-50 people to the present staff of 145.

Long range plans, five to ten years from now, would provide a total of 325,000 sq. ft. of office building, research and development facilities, factory/assembly plant and storage space.

Schneider said that this expansion has become necessary due to greatly increased sales in recent years as well as for competitive reasons. The company has been handicapped in certain fields due to the great fluctuations

(Continued on page 25)

YOU'LL HAVE TO SPEAK UP

By

RICHARD L. LESHER
President
Chamber of Commerce
of the United States



How noisy is too noisy?

There has been a deafening debate going on in Washington over that question.

And a lot is at stake in the outcome: For the worker, it could be his hearing or his job. For the businessman, it could be his business. And for the consumer, it could be another big boost for inflation.

The issue breaks down into two parts:

1. What's the highest level of noise a worker can be subjected to on the job without suffering serious damage to his hearing?

2. What's the best way to protect him from noise levels higher than that?

Everybody agrees that the worker should be protected from dangerous noise levels. But that's where the agreement ends. One might expect business and labor to be at odds—and they are—but in this case, the four federal agencies involved can't even agree with one another.

Some experts believe the upper noise limit should be 90 decibels (dBA). That's about as noisy as a busy New York subway station. In this camp, too, vary degrees, are representatives of industry, the Occupational Safety and Health Administration, the National Institute of Occupational Safety and Health, and the Council on Wage and Price Stability.

Other experts believe 90 dBA is too high, and want the standard to be 85 dBA, which is about the noise level of a busy street corner. Organized labor and the Environmental Protection Agency favor the lower level.

Much more important than the level, however, is how it is to be reached. The simplest, least expensive and most effective way of protecting a worker's hearing from a noisy environment is to equip him with a set of custom fitted ear plugs or ear muffs (which look like hi-fi headphones without a cord).

The alternative is to redesign all machinery to make it quieter in operation.

Labor and all of the government agencies but one want industry to try redesign first, to the extent "feasible," and to resort to ear plugs only if redesign fails.

Representatives of industry say it doesn't make much sense to choose the most expensive possible solution—redesign—when there's a better way to do it that costs far less.

How much less? Personal ear protection for all who need it would cost about \$23 million. Modifying or replacing present factory equipment to meet the proposed noise standards—if it could be done at all—could cost up to \$150 billion. Even OSHA puts the cost as high as \$31 billion (in 1973 dollars).

Remember, that cost represents a figure all of us, as consumers, would wind up paying. The investment required would raise the cost of production, but it would not make production more efficient—therefore, the increased cost would have to be tacked on to the price of the product.

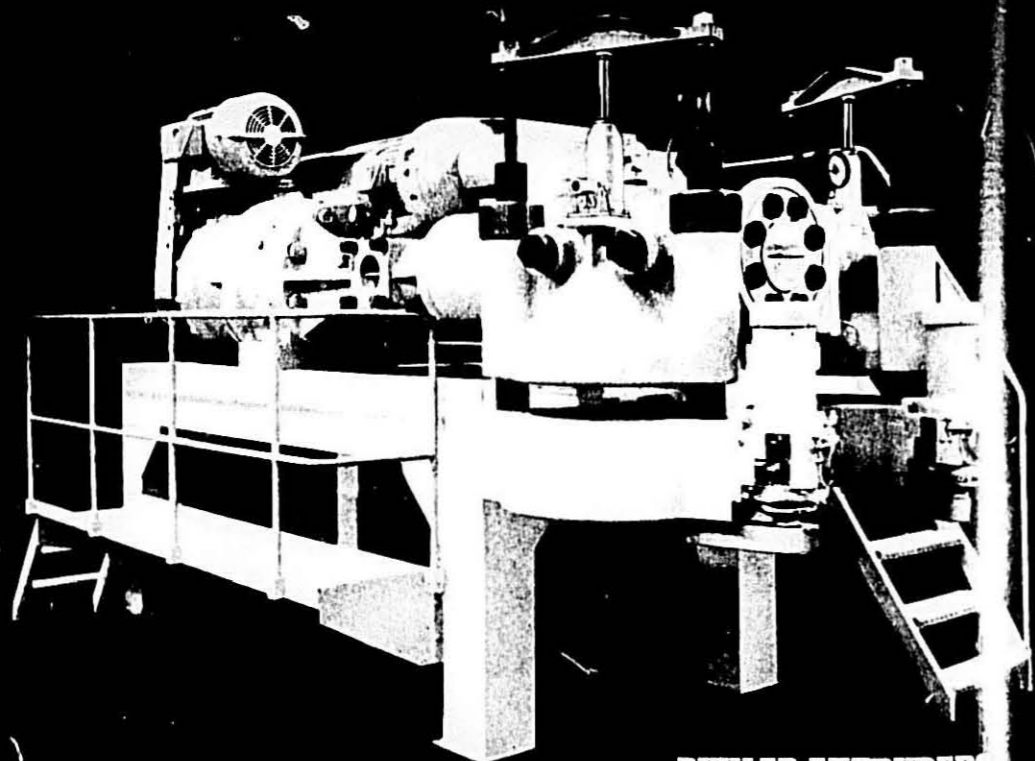
Why not use ear plugs? Well, say labor representatives, they might be uncomfortable and workers might not wear them. But, hardhats, safety glasses and safety shoes are also a nuisance, and yet workers are willing to wear them for their own good.

The Council on Wage and Price Stability—the government's anti-inflation watchdog—chided OSHA and EPA for their "wide divergence of opinion on . . . fundamental issues" and the fact that they "seem to be either unwilling or unable to cooperate to narrow" their differences. The Council also warned that "inappropriately stringent standards can lead to layoffs, add to industrial and consumer costs and impair the ability of industry to finance badly needed capital improvements."

And it does seem strange, when you think about it, that the same Federal Government that doesn't consider three-point auto safety belts too great an inconvenience for the motorist is nevertheless willing to spend \$150 billion of our money to save some factory workers from ear plugs.

If you agree, call your congressman and give him an earful.

SANITARY.



BUHLER EXTRUDERS

are the most sanitary you can buy!

Model TPCE shown above is equipped with specially-designed twin head.

Completely Re-designed. Buhler's new line of extruders have all the basic features which have made BUHLER the favorite throughout the world... plus many new improvements which put it far ahead of any other you can buy in North America today!

Super Sanitary

- Structural members are completely enclosed, can't collect dust or dirt.
- Motors and drives are in the open, away from product area, completely accessible for service.
- Drive guards are open at bottom so dust falls through, can't accumulate.
- One-piece mixing trough has smooth rounded corners for easy cleaning, no place where dough can lodge.
- Unique trough design virtually eliminates product hangup on mixer walls.
- Outboard bearings on mixer shafts absolutely prevent any product contamination by lubricant.

Finest Quality Product

- Efficient vacuum completely de-aerates product.
- All processing elements are of proven design, are properly sized and balanced to rated capacity.

Seven Models Available

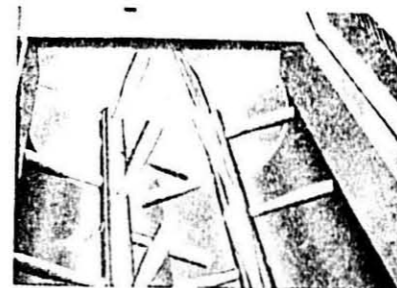
Model	Lbs./hr. Capacity
AE (Single Screw)	660-1,320
AD (Double Screw)	1,320-2,640
BE (Single Screw)	1,000-2,000
BD (Double Screw)	2,000-4,000
CE (Single Screw)	2,000-4,000
CD (Double Screw)	4,000-8,000
CV (Four Screw)	8,000-16,000

U.S. Built Drives

All motors, sprockets, chains and electrical controls are standard components readily available throughout the U. S.

Get

All Details on the new Buhler extruders and other Macaroni Processing Equipment. Call us or write: BUHLER-MIAG, INC. 8925 W. Way Blvd., Minneapolis, Minn. 55426. (612) 545-1401/Eastern Sales Office: 10 Sylvan Ave., Englewood Cliffs, New Jersey 07632. (201) 871-0010. BUHLER-MIAG (Canada) LTD., Don Mills, Ontario, (416) 445-6910.



Mixing trough is one-piece stainless-steel construction. Unique shape prevents product hang-up on walls.



Bearings of mixer shafts are completely separate from product seal. Seals may be replaced without removing bearings or shafts. Product contamination virtually impossible.



Press base and belt guard reflect the clean, efficient design and attention to detail in every Buhler press. Base is sturdy, easily accessible. All joints have smooth welds for easy cleaning.

Complete Macaroni Plants by

BUHLER-MIAG

Buhler-Miag to Build

(Continued from page 24)

of foreign exchange rates in the past few years necessitating more domestic fabrication of previously imported equipment.

Buhler-Miag, Inc. operates 7 divisions in the United States, serving the grain milling, brewery, macaroni, chocolate, ink and chemical industries with the latest in process, conveying and pollution control equipment.

G.T.A. Net Off

A decline in consolidated net earnings and volume of grain shipments from record year-ago levels was posted by Farmers Union Grain Terminal Association for the fiscal year ended May 31. Earnings for the year amounted to \$29.2 million on grain volume of 257 million bus, compared with \$32.5 million and 326 million bus for the 1974 fiscal year.

Higher prices for grains and oilseeds and their products brought total revenues to \$1,278,292,058, which established a new record and compares with \$1,164,047,187 during the previous year. Member ownership also set a record at \$125 million, an increase of \$22 million from fiscal 1974, with most of the increase made in expansion of processing facilities and other developments intended to increase participation in export markets.

A smaller crop reduced marketings by member elevators during the year, GTA said, and margins per bu were down slightly. Strong demand for processed grains and for the products of the farm supply divisions contributed favorably to the 1975 net, which is the second highest in the cooperative's history, a GTA spokesman said.

Large Grain Marketer

GTA is one of the nation's largest grain marketing cooperatives, and has 464 member associations which represent 150,000 growers in the Upper Midwest. The cooperative shares ownership of the Farmers Export Co. terminal elevator at Ama, La., along with five other regional grain marketing cooperatives. The group recently announced that it is planning to build another export elevator on the Texas Gulf coast.

Stock Split for ADM

The board of directors of Archer Daniels Midland Co. declared a three-for-two split of the company's common stock to effect a 50% dividend payable Dec. 10 to shareholders of record on Nov. 18. The stock split is subject to approval by ADM shareholders at the annual meeting on Nov. 6.

If approved, the split would increase the number of ADM authorized common shares to 30 million, against 20 million presently authorized. The board did not announce any plan to increase the annual dividend rate of 25¢ per share, which would be reduced if shareholders approve the stock increase.

The dividend, the company said, is aimed at achieving a broader market and distribution of its shares. There are currently 19,824,844 shares of ADM common stock outstanding.

Net earnings of Archer Daniels Midland Co. in the first quarter of the 1976 fiscal year, the three months ended Sept. 30, were nearly double the same period of 1974.

Peavey Dividend

Peavey Company's Board of Directors voted to recommend to shareholders an increase in the number of authorized shares of Peavey common stock from 5 million to 10 million.

Contingent upon shareholder approval of the increase in authorized shares, the Board declared a 50% stock dividend to shareholders of record December 11 payable December 24, 1975. This would increase the number of Peavey common shares outstanding to approximately 5.7 million shares.

In addition, and also contingent upon shareholder approval of the increase in authorized shares, the Board declared a quarterly dividend of 18½ cents to shareholders of record January 5 payable January 15, 1976 on the total number of shares held after the stock dividend.

Peavey Plans Acquisition

Peavey Company announced it has agreed in principle to acquire, for cash, Wheelers Stores, Inc., a retailer of automotive, building and farm supplies and other merchandise, headquartered in Grand Island, Nebraska.

Wheelers operates 45 stores, with 29 located in mid-size Nebraska communities, five each in Iowa and Kansas, three in Georgia, two in Wyoming and one in Colorado. Average store size is 10,000 square feet.

"The management and employee team of Wheelers," Peavey Chairman Fritz Corrigan said, "is outstanding. It would be our intention for Wheelers' management team to remain intact under President Lloyd Wheeler, and become a part of Peavey's Retail Group."

Corrugated Box Shipments Down

Revised projections show 1975 shipments of corrugated boxes will be more than 10% below 1974 levels with an almost 15% increase expected next year, members of the Fibre Box Association were told at their annual meeting.

John W. Enders, vice president of Lionel D. Edie & Co., an investment firm, cited a strong recovery expected in both household durables and housing and the completion of inventory reductions in making his 1976 projection to the industry group.

Robert F. Rebeck, vice president of the association, said volume in the third quarter was 8% above that of the second quarter, compared with a normal second to third quarter decline a year earlier. He also said shipments in the most recent two-week reporting periods began to exceed year-earlier levels.

Better Canadian Crop

A survey of 1,500 grain elevator managers in Canada confirmed that the Canadian wheat harvest will be considerably larger than last year but that quality will be well below average for the second consecutive year.

The survey estimated total wheat deliveries at 593.6 million bushels, up from 475 million last year. About 50% of the wheat is expected to qualify as the top two Canadian grades; that up from 38% last year but below the normal average of about 75%. The survey blamed poor weather for the decline in quality.

Lent begins Wednesday,
March 3, 1976.

THE MACARONI JOURNAL

In actual side-by-side use, the Triangle packaging machine out-produced competition by 25%.

Wickes Agriculture, Michigan Division, was the test site. And James Suchodolski, Director of Operations, put it to us this way. "If your equipment is as good as you say it is, it stays."

So two machines were set up side by side. One was ours, the other a leading competitor's. Both were form-fill-seal units with net weighers.

For 90 days they both weighed and packaged beans.

For 90 days the Triangle machine produced 25% more packages than the other.

Results? Wickes Agriculture replaced 11 volumetric units with just six Triangle machines with our Texitron net weighing systems.

Now, Wickes Agriculture routinely exceeds its packaging goals by 10%. Now, accuracies are higher. Now, employee



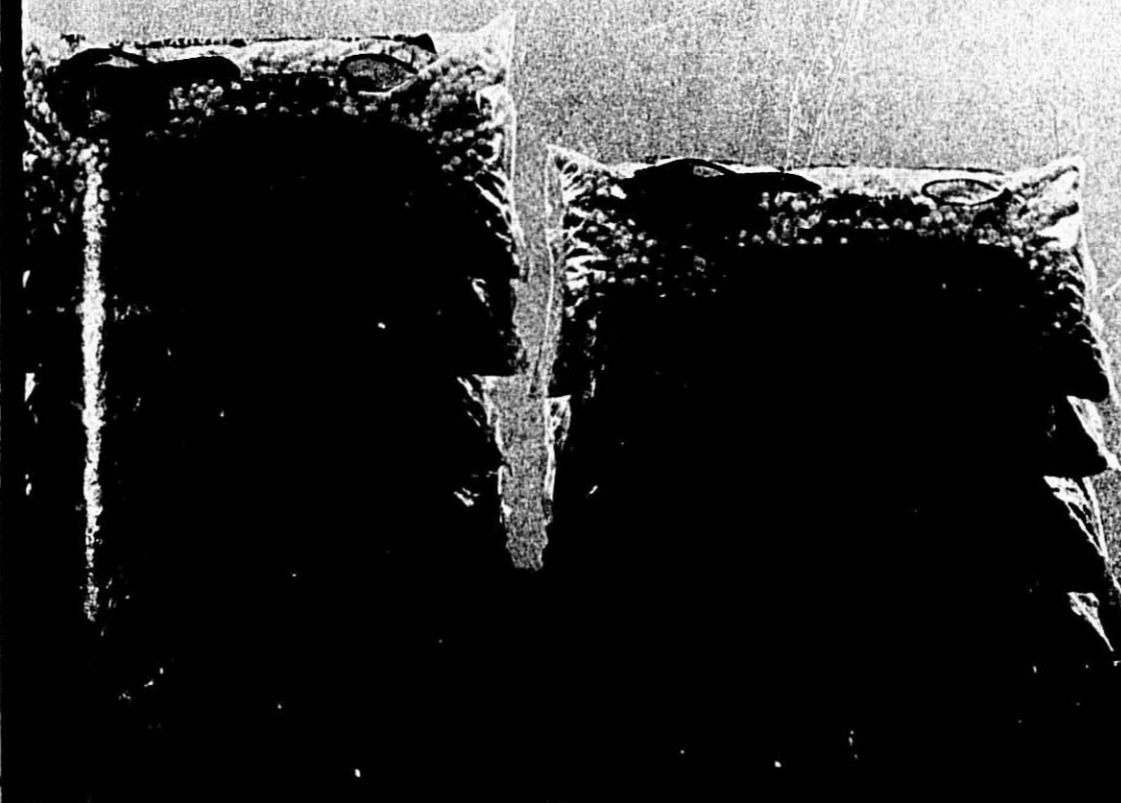
Checking package production at Wickes Agriculture are James Suchodolski, Director of Operations; John Petersen, Packaging Operations Manager; and Joseph Ayotte, Packaging Foreman.

productivity is maintaining an incredible 95% of optimum performance.

James Suchodolski pretty well summed it all up when he told us "The equipment is doing everything we expect of it. And that's a lot."

For details on this test, or for information about any Triangle equipment, write: Triangle Package Machinery Company, 6655 West Diversey Avenue, Chicago, Illinois 60635. Or phone (312) 889-0200.

TRIANGLE
Reliable High-performance Packaging Systems • Form-fill-seal Bag Machines • Net Weighers • Vibrating Conveyors
Running better in high-performance packaging systems.





Bill Yeary Appointed

American Beauty Macaroni Company is proud to announce the appointment of Mr. Bill Yeary as Assistant Sales Manager of the Kansas City Division, as of October 6, 1975.

Mr. Yeary started with American Beauty in 1960 as a sales representative in the St. Joseph, Missouri area; and after seven years there, he then moved to Kansas City where he became Unit Manager, working with a number of sales associates around Missouri, Kansas and Arkansas.

Judi Adams Active

Judi Adams, North Dakota Wheat Commission Nutritionist, has been busy promoting the nutritional values of spring wheat and durum products at national conventions. These efforts are directed at both consumers and the hotel-restaurant-institutional field. Convention contacts have been made at the American Home Economics Convention, June 23-26; American School Food Service Convention, July 7-10; Society for Nutrition Education Convention, August 19-20; American Dietetics Convention, October 20-24; and Association of Extension Home Economists, October 26-29.

Ole Sampson in Washington

J. Ole Sampson, wheat commissioner from Lawton, North Dakota, was the Dial-A-Farmer toll free telephone lines for the Agriculture Council of America in Washington, D.C. September 10. He attended the NMMA Meeting the following day.

Nearly 400 calls were received that night with 90% of the callers in complete disagreement with the stand of the AFL-CIO on grain sales.

Prof. Banasik in Poland

Professor Orville Banasik, head of the Cereal Technology Department of North Dakota State University, presented a paper on research being conducted there at a Technical Conference on Cereal Processing at Potsdam, Germany September 22-26. He went on to Poland to visit at the invitation of the Polish government.

French Specialists Visit

A team of specialists from France interested in durum seed production recently visited the Langdon experiment station to observe the North Dakota variety breeding program and seed production methods for new varieties.

Michele Yvon durum breeder, and Claude Jouin, agronomist, represented the agricultural marketing group known as Groupement Agricole Es-sonnois (G.A.E.) Dr. J. F. Carter, chairman of the Department of Agronomy at North Dakota State University, accompanied the French visitors.

In recent years, the G.A.E. group has purchased breeder and foundation seed of Wells and Lakota durum from the North Dakota Agricultural Experiment Station.

German Visitors

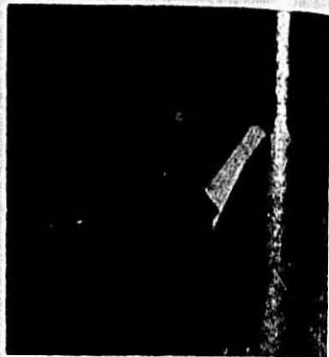
Frieder Birkel and colleague Professor Erwin Kurz of B. Birkel Sohne, Schwaben Nudel Werke, Endersbach bei Stuttgart, Germany, visited macaroni plants in Canada and the United States in mid-October.

Primarily interested in seeing applications of microwave drying Mr. Birkel said he was impressed with American organization and general plant cleanliness.

Code for Pasta

Confirmation of Britain's continued membership in the European Community brought swift response from the EEC's pasta manufacturing industry.

Within days of publication of the results of the referendum, Freddie



Among principal speakers in Spokane at the recent Washington State Food Dealers convention was Mark De Domenico, assistant to the President of Golden Grain Macaroni Company. Dr. De Domenico, who holds a medical degree from Washington University, spoke on the subject "How to live with today's pressures."

Fox, British representative on the European pasta manufacturers' committee, was told that the group would like to hold its annual conference in Britain next year.

One of the topics for discussion at the conference is likely to be the new Code of Practice for dry pasta products in the United Kingdom.

The Code states: "All pasta products other than those containing egg, additional gluten or any other additives shall, on a 12.5 moisture basis, conform to the following standards:

Protein	.....	11.5%
Color (basis betacarotene)	.....	2.5 ppm minimum when packed
Moisture	.....	12.5% maximum when packed
Ash	.....	0.60-0.85
Maximum degree of acidity	.....	80 titre against 0.05 N.NaOH.

Efforts are being made to notify in particular importers of inferior quality products to adhere to this new Code of Practice.

CECO Moves

Container Equipment Corporation (CECO) has moved its Plant and Offices to a new facility at One Ceco Way, Cedar Grove, New Jersey 07009. Tel: (201) 857-1500. CECO, formerly located in Bloomfield, New Jersey, is a leading manufacturer of Cartoning Machinery from Carton Glue Sealers to Semi-Automatic and Fully Automatic Cartoners.

GIVE TO CHRISTMAS SEALS. IT'S A MATTER OF LIFE AND BREATH.®

Fight emphysema, tuberculosis, air pollution

AMERICAN LUNG ASSOCIATION
The "Christmas Seal" People

Space contributed by the publisher as a public service

Mrs. Grass Soup for a Nickel

The Mrs. Grass Division of Hygrade Food Products Corp. aired a new TV spot for Mrs. Grass soup mixes the week of October 6th. The commercial will be seen over a period of ten weeks in selected major markets. The use of daytime television will deliver the maximum number of commercial exposures, and is the most effective and efficient method of concentrating impressions against known heavy users of soup.

The :30 spot, called "Nickel" asks "What can you buy for a nickel today?" as an animated nickel rolls from a cigar to a pay phone to a newspaper and ends up near the answer: a serving of Mrs. Grass chicken-rich noodle soup. The commercial closes with a scene showing the full line of Mrs. Grass soup mixes in boxes and foil packets.

The spot will be seen on such popular daytime programs as "Hollywood Squares", "The Match Game", "Dinah", "As The World Turns" and "Let's Make A Deal". To support the TV effort and encourage consumer trial and usage, newspaper ads carrying cents-off coupons will appear on "best food days" during the same period.

Mrs. Grass has recently embarked on a major expansion program into new markets throughout the Midwest and East and selected markets in the West.

Prince Sweepstakes

Full-color ads in various Midwestern and Northeastern regional editions of November Family Circle and December Woman's Day will bring American women the exciting news of Prince Spaghetti Sauce's "Festival Italiano."

The Prince Sweepstakes Italiano will offer prizes of one-week trips for two to romantic Rome, and a new 1976 Fiat 131 car. Fifty special prizes will be 100 pounds of assorted Prince products.

The sweepstakes will be backed by colorful and arresting point-of-sale materials, plus large-size newspaper ads in key markets.

Retailers may obtain further information from their Prince salesman or broker, or by writing Prince Maca-



Macaroni manufacturers visit with Consumer Specialists at NMI Luncheon in Chicago. Left to right: Alvin Karlin, Richard Zajac, Brenda Haley, Larry Williams and Helmut Gogen. The ladies are with Miracle Food Mart.

roni of New Jersey, Inc., 6575 Chestnut Ave., Pennsauken, N.J. 08109.

Hamburger Helper

General Mills, Minneapolis, is promoting Hamburger Helper main-dish mixes to be used to make oven casseroles, as well as skillet dinners. New packages, with yellow casserole designations on the front, were in stores in October, and each package had an oven casserole recipe. Trade promotions were available to retailers. Consumer advertising support consists of daytime and late-night network TV, 10¢-off coupons in family magazines and a casserole cookbook in color, which will be offered free on package backs and shelf talkers.

Sara Lee Drops Entrees

Kitchens of Sara Lee is pulling out of the frozen entree business, and apparently will concentrate its effort in the dessert area. The company said it will drop five retail and nine food-service products. Sara Lee has been in frozen entrees (lasagna, macaroni and cheese, etc.) for about four years.

Hershey Boosts Earnings

Hershey Foods Corporation announced consolidated net sales of \$419,803,000 for the first nine months of 1975 compared with \$381,731,000 for the same period in 1974. Net income increased to \$22,945,000 or \$1.76 a share in 1975 versus \$15,893,000 or \$1.20 a share in 1974.

Net sales for the third quarter of 1975 were \$154,819,000 compared

with \$149,084,000 for the same period in 1974. Net income was \$11,195,000 or \$.88 a share versus \$6,523,000 or \$.50 a share in 1974.

Harold S. Mohler, chairman of the board and president, said in comparing the third quarter of 1975 with the third quarter of 1974, "It should be noted that sales in the third quarter of 1974 were influenced by heavy sales to the trade prior to a price increase effected in the Chocolate and Confectionery Division late in that quarter."

Kraftco Gains

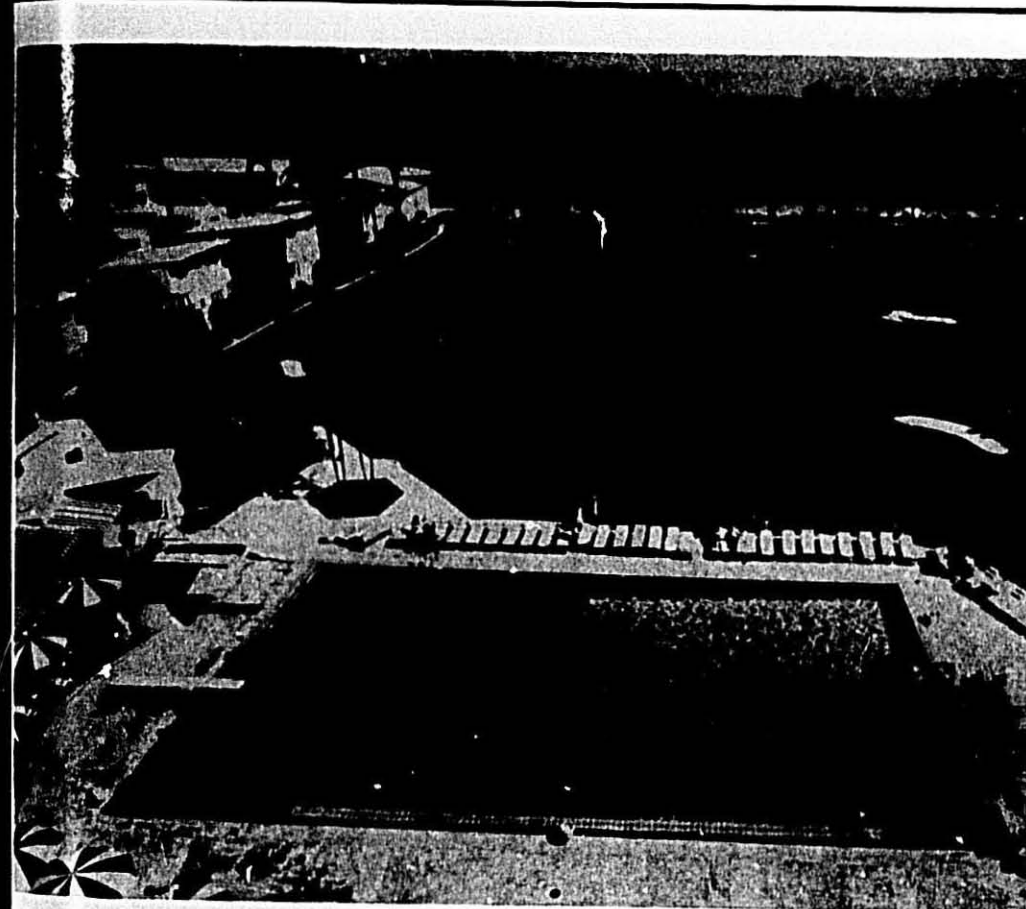
Kraftco Corp. reported a 45% gain in third quarter earnings on a 40% rise in sales.

The Glenview, Ill., food processor earned \$42.7 million, or \$1.57 a share in the period ended Sept. 27, compared with \$29.5 million, or \$1.08 a share, a year earlier. Sales rose to \$1.2 billion from \$1.15 billion.

William O. Beers, chairman, told security analysts that wholesale cheddar-cheese prices are "a factor on more in our operations," although he indicated the effect this time will be more favorable. He said wholesale cheddar-cheese prices reached a high of 95 cents a pound and that "demand for dairy products continues strong."

Winter Meeting Feature

George Koch, president, Grocers Manufacturers of America will sponsor and moderate a panel of grocers at the NMMA Winter Meeting (see p. 33).



Pool your information—pitch your problems into the ocean.

the WINTER MEETING

National Macaroni Manufacturers Association

Key Biscayne Hotel & Villas, Key Biscayne, Miami, Florida 33149

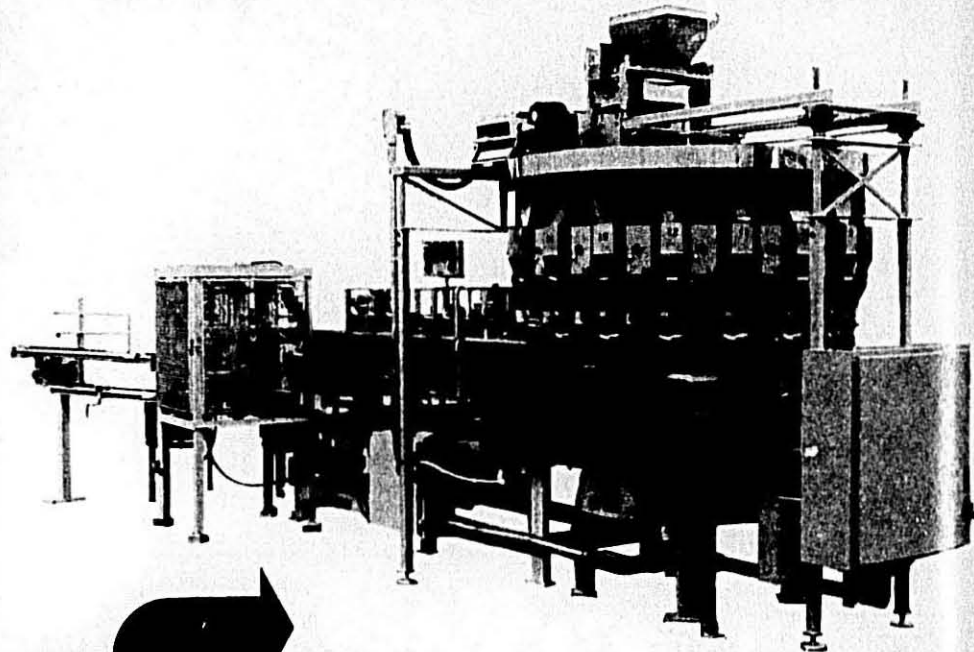
January 19-23, 1976. Make Reservations Now.

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

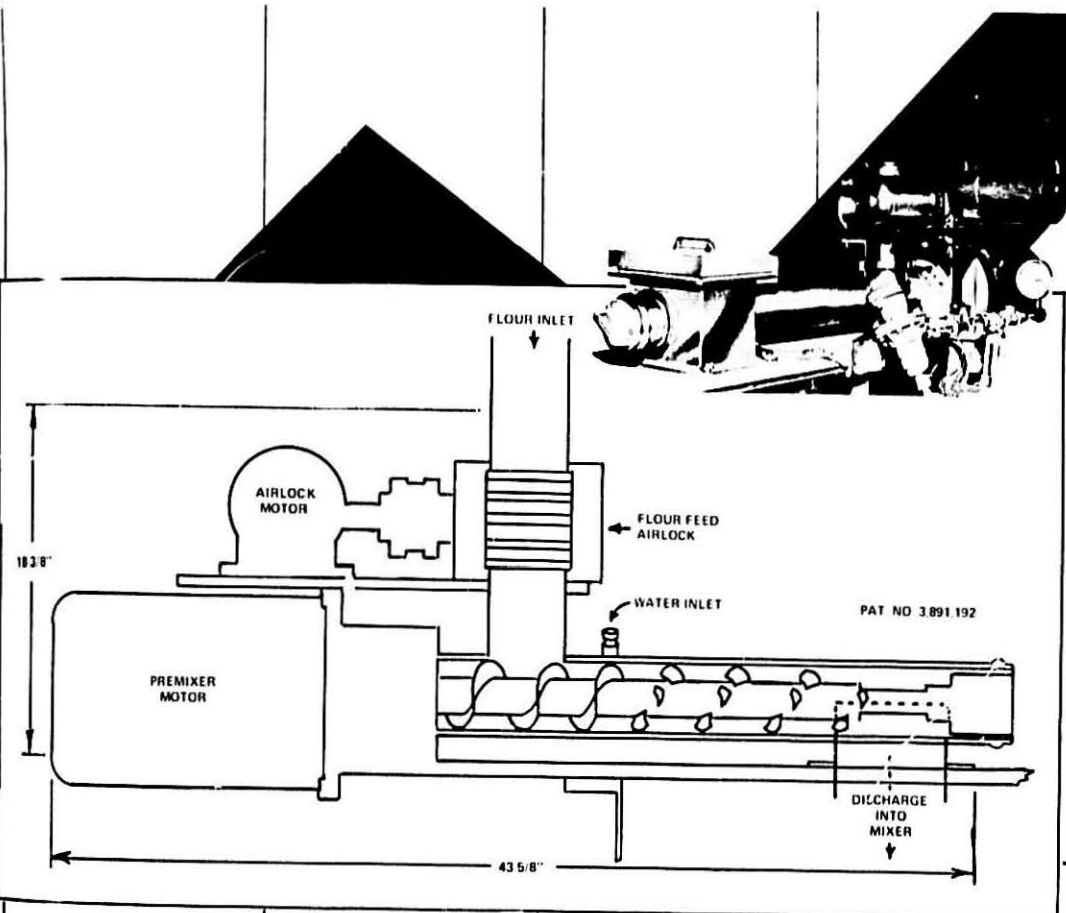


WRIGHT MACHINERY COMPANY, INC.
Durham, North Carolina 27702 Tel. 919-882-8161

Merry Christmas

Amber
MILLING DIVISION
FARMERS UNION GRAIN
TERMINAL ASSOCIATION
Rush City, Minnesota • General Offices, St. Paul, Minnesota 55165

Give your
 Continuous Press
 a new Demaco
 Pre-mixer
 and why
 efficiency
 go up



Here's what the Demaco Pre-mixer does for you:

- It increases dramatically, the efficiency of the Mixer.
- It prepares dough properly for the Mixer. Eliminates white specks due to improper mixing.
- Improves product quality. Smoother consistency, more uniform result.
- Mixer stays cleaner longer. Negligible free water and flour dust build-up in Mixer.
- Easy to dis-assemble for cleaning in minutes. Thumb-screw construction. All stainless steel and nickel plate construction.

Want more details? Contact **DE FRANCISCI MACHINE CORP.**
 46-48 Metropolitan Avenue, Brooklyn, N.Y. 11237 U.S.A. • Phone: 212-386-9880, 386-1799
 TWX: 710-504-2449 Cable: DEMACOMAC NEW YORK
 Western Rep.: Hoskins Co., Libertyville, Illinois 60048 • Phone: 312-352-1031

INDEX TO ADVERTISERS

ADM Milling Co.	13
Amber Milling Co.	35
Aseco Corporation	11
Braibanti Corporation	18-19
Buhler-Mieg	26-27
DeFrancisci Machine Corporation	36-37
Diamond Packaged Products Div.	39
Fibreboard Corporation	2
Hoskins Co.	5
International Multifoods Corp.	40
IPACK-IMA	13
Jacobs-Winston Laboratories	13
Maldari & Sons, D., Inc.	7
Macaroni Journal	13
National Macaroni Manufacturers	33
North Dakota Mill	3
Peasey Co. Flour Mills	22-23
Triangle Package Machinery Co.	29
Wright Machinery	34



H. Edward Toner

H. Edward Toner

H. Edward Toner, board chairman and chief executive officer of the C. F. Mueller Company, Jersey City, died recently at the Morwick Rehabilitation Center, Princeton, N.J. He was 71 years old and lived in Jamesburg, N.J., and formerly in Essex Fells, N.J.

Mr. Toner was a graduate of Rutgers University, Class of 1926 and a graduate of New York University Law School, Class of 1929. He was admitted to the New Jersey Bar in 1926 and subsequently practiced law with the firm of Toner, Crowley, Woelper & Vanderbilt and successor firms.

Long active in food industry affairs, Mr. Toner was named regional director of the National Macaroni Manufacturers Association in 1961 and was elected a vice president in 1972. He once said, "I have three loves: my wife, the Mueller Company and my law work."

How complete was his dedication to the macaroni business is recalled by Robert M. Green, executive director of the National Macaroni Institute, who said,

"Ed was a true leader and statesman in the macaroni industry. He was an enthusiastic supporter of industry product promotion. As an officer and director his counsel and contributions to committee work were highly valued. His competitors looked upon him with great esteem."

Since 1962, Mr. Toner had served as an industry trustee of the Food

and Drug Law Institute, and was chairman of the group's nominating committee.

As a member of The Grocery Manufacturers of America, he was for several years in the GMA-FDA Food Processors Council. "Ed was a major contributor to GMA's activities, far out of proportion to the size of his company. His interests were as wide as his vitality was unbounded. He worked on a number of activities for the membership, including the GMA-FDA Council. He had an incisive mind and the ability to ask the one question which could focus an issue. He was a personal friend whose trust and support will be missed by all at GMA," said George W. Koch, President of GMA.

Born in Toms River, N.J., Mr. Toner was admitted to the New Jersey Bar Association in 1926 and commenced his legal career with the Honorable Arthur T. Vanderbilt, former Chief Justice of the New Jersey Supreme Court.

In his long career with Mueller's he was a leader in recognizing the loyal service of employees. He presented more than 100 awards for longevity and the accomplishments of Mueller's personnel. He initiated group insurance, medical coverage, a pension plan and a program of scholarships for the children of employees.

Surviving are his wife, the former Edna M. Hogeboom, whom he married in 1929, a son, Roger; two daughters, Mrs. Roger B. Koehler, Jr. and Mrs. David A. Walker; a sister, Mrs. Royal Saunders, and nine grandchildren.

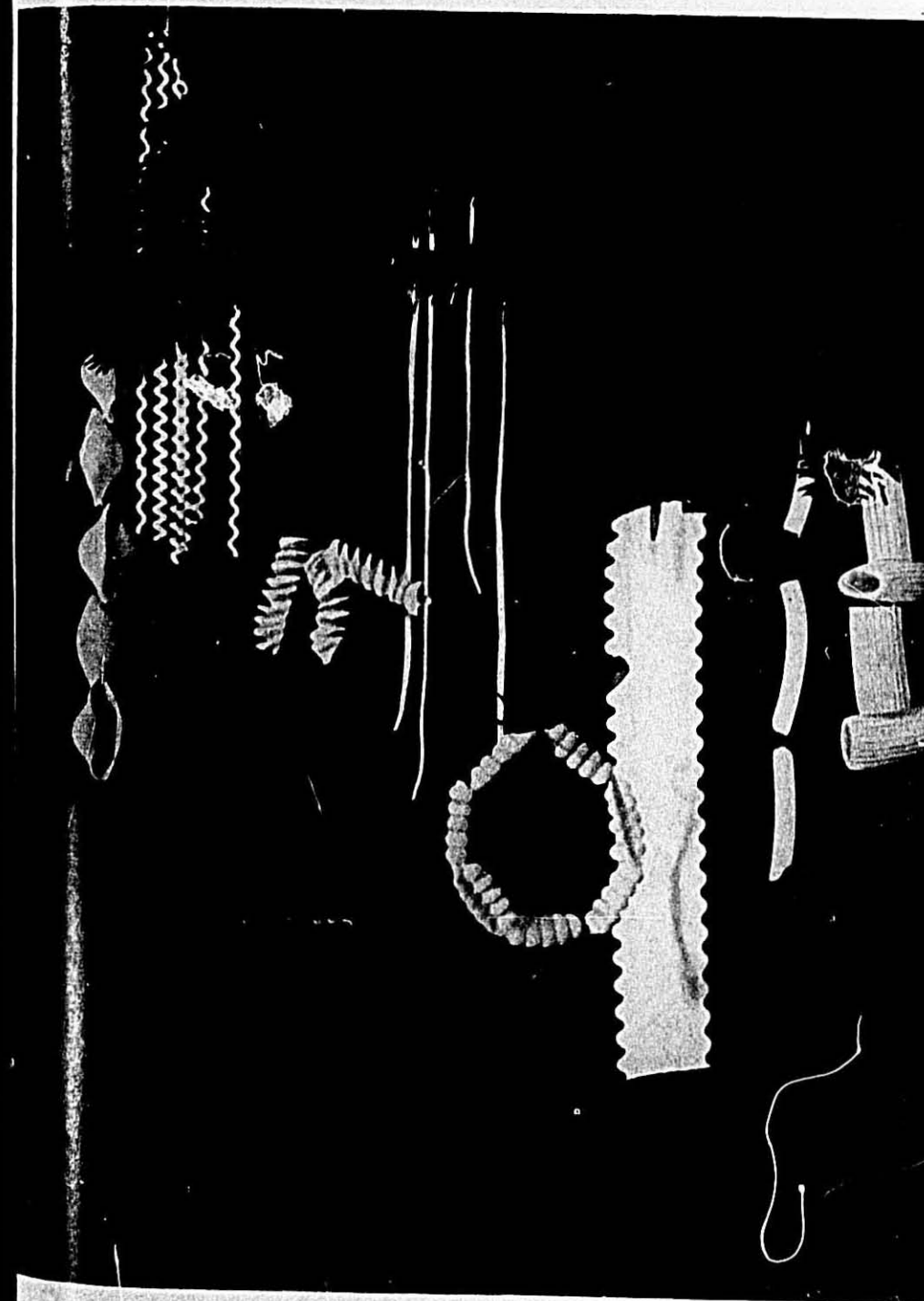
Anna Maldari

Mrs. Anna Maldari, wife of Donato Maldari passed away October 29 after an extended illness. She was mother of C. Daniel and Ralph A. Maldari and grandmother of four grandchildren.

Subscription Rate Increase

Because of increased costs of paper, printing, binding and postage the subscription rate to the Macaroni Journal will be increased with the January issue to \$10 for twelve monthly issues. Add \$2.50 for foreign postage. Single copy price will remain at \$1.00.

THE MACARONI JOURNAL



DIAMOND INTERNATIONAL CORPORATION

PACKAGING PRODUCTS DIVISION
733 Third Avenue, New York, New York 10017



Taxes

Tax rates discriminate against small business says Senator Gaylord Nelson. The largest corporations pay only about 25% of their income in federal taxes because of loopholes while many medium-sized firms pay more than 50%. Thus a small firm attempting to accumulate capital to grow may be paying twice as much as a giant competitor.

Food Brokers Meet

National Food Brokers Association meets in New York Dec. 5 through 10. Program features include a Panel of Presidents, Arch-Bishop Fulton Sheen, a variety of workshops, and an opportunity for brokers to meet with principals.

Old folks at home



Multifoods' durum experts are at home in their jobs. That's because they've been at so long. Some of our sales people, buyers, millers and technical people have made durum their business for 20, 25, even 35 years.

These people are "old folks" in their jobs, even though they're not old in years. They know their business like you know yours.

Their experience makes for fewer defects... in your business and in ours.

Order your durum products from the old folks at home. Call us at 612/340-3583.

"Working with you toward zero defects."

