

**THE  
MACARONI  
JOURNAL**

**Volume 37  
No. 2**

**June, 1955**



# Macaroni Journal

OFFICIAL PUBLICATION  
OF THE  
NATIONAL  
MACARONI MANUFACTURERS  
ASSOCIATION





## IS YOUR PACKAGE DESIGNED FOR SELF-SERVICE?

Great changes in merchandising methods, in consumer self-selection, and indeed in their buying power, have come about in the last few years. Unless your macaroni package has been re-designed in these same recent years it probably is under a tremendous handicap in Self-Service stores, today.

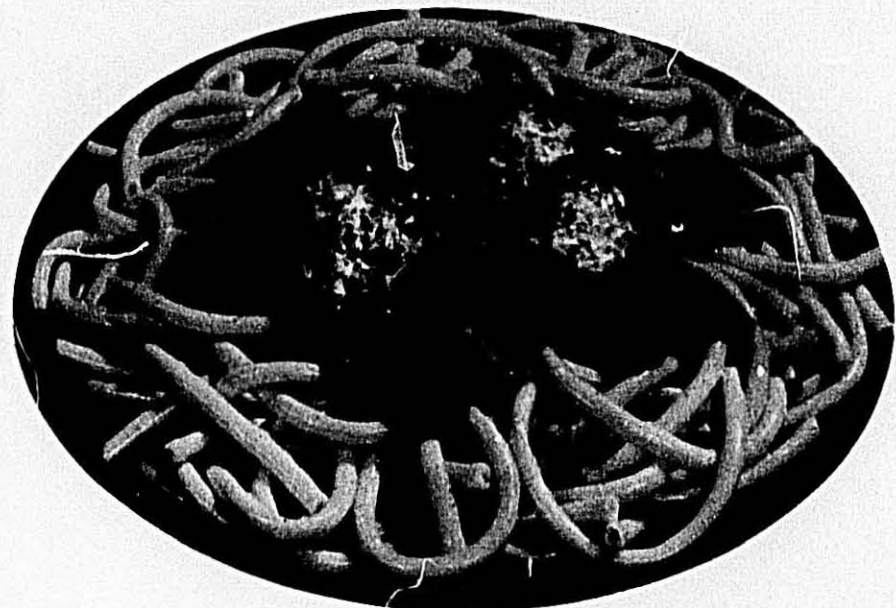
The package that shows the product in use . . . demonstrates additional uses . . . stresses the benefits to the consumer . . . clearly and legibly explains how to prepare and use the product . . . points out the time and trouble saving advantages—in short, the package that establishes DESIRE and gives the shopper a reason for buying—that's the package that will lead the parade from the retail shelf to the market basket.

Such a package will interest the retailer, too, because he knows that over half the purchases in his store are un-

planned, point-of-purchase impulse buys. And he's the fellow who assigns the shelf space to your macaroni product.

Perhaps it's time to re-examine your package? Remember—your package is your only personal sales contact with the potential buyer in the self-service market.

Perhaps you're thinking of modernizing your package. Perhaps merchandising methods of today are convincing proof that a new approach in your sales promotion picture is what you need. May we suggest that you consider us when you're ready to go into new, up-to-the-minute packaging? We've taken all the "perhaps" out of the problem of package design. We'll be glad to show you, without obligation, how we go about this all-important business of designing and producing successful sales-winning macaroni packages.



Will you make this simple test? Cut out this pictorial and place it on your present package. Doesn't it whet your appetite for a good, appealing Macaroni dish? It will have the same effect on shoppers in Self-Service stores.

There is a qualified Rossotti representative near you. He has many helpful facts and figures at his fingertips. Just call or write us for an appointment. It could be the beginning of a very profitable increase in your sales.

**Rossotti** "FIRST IN MACARONI PACKAGING"

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## Greetings

### NATIONAL MACARONI MANUFACTURERS ASSOCIATION

Best wishes from Amber Milling on the occasion of your 51st annual meeting.

To better serve each of you is our sincere desire. That is why our Durum-Hard Wheat Blends are milled to such exacting standards of uniform color and superior quality—standards that have helped many of you to better control the quality of your macaroni products.



**Amber Milling Division**  
*Farmers Union Grain Terminal Association*

MILLS AT RUSH CITY, MINNESOTA • GENERAL OFFICES, ST. PAUL 8, MINNESOTA



# The MACARONI JOURNAL

June, 1955  
Volume 37, No. 2

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Official publication of the National Macaroni Manufacturers Association, 139 N. Ashland Ave., Palatine, Illinois. Address all correspondence regarding advertising or editorial material to Robert M. Green, Editor.

## You'll Find:

	On Page
Official Convention Program.....	5
Easy Summer Serving.....	6
Merchandising Meetings.....	8
Your Industry and You.....	10
Tests for Flour Quality.....	13
Hard Wheat for Blends.....	14
Use of Gluten in Macaroni.....	18
Durum Developments.....	20
Testing for Quality and Taste.....	24
What Cooking Tests Have Proved.....	25
Continuous Press Maintenance.....	28
At the Packaging Show.....	32
The Egg Market.....	35
Way Down Yonder in New Orleans.....	46
M. J. Donna's Retrospections.....	50
Index to Advertisers.....	50

## Cover Photo

Comely Barbara Weiss has been calling attention to the "Easy Summer Serving" campaign of Macaroni-Egg Noodles and Canned Meats from June 15 through July 31. The drive will "beat the heat" and zoom that sales curve upwards.

The Macaroni Journal is registered with U.S. Patent Office. Published monthly by the National Macaroni Manufacturers Association as its official publication since May, 1919. Entered as second class matter October 7, 1953, at the Palatine Post Office, under the act of March 3, 1879.

Subscription rates:	
Domestic.....	\$2.00 per year
Foreign.....	\$3.50 per year
Single Copies.....	25¢
Back Copies.....	50¢

June, 1955

THE MACARONI JOURNAL

5

## 51st Annual Meeting NATIONAL MACARONI MANUFACTURERS ASSOCIATION

Hotel Del Coronado, Coronado, California  
June 21-22-23, 1955

### PROGRAM

Convention Theme: OPPORTUNITIES UNLIMITED

#### Monday, June 20

10:00 a.m.—Board of Directors Meeting.  
4:00 p.m.—Millers and Board of Directors Meeting.

#### Tuesday, June 21

8:30 a.m.—Registration Breakfast in the Crown Dining Room.  
9:45 a.m.—Assembly and formal Opening of the Convention in the Circus Room.  
10:00 a.m.—Welcome from Coronado's Mayor Walter A. Vestal.  
10:15 a.m.—Greetings from President Peter LaRosa.  
10:30 a.m.—Appointment of Convention Committees: Nominations, Audit, Resolutions.  
10:40 a.m.—"Opportunities Unlimited" by Richard M. Oddie, Director of Small Business Advisory Service, Bank of America.  
11:15 a.m.—"But You Have to Know Your Costs", Walter M. Baird, partner of Price Waterhouse & Co.  
12:00 noon—Report on Durum Relations by Lloyd E. Skinner, Durum Relations Committee.  
12:15 p.m.—Report on Imports, by Joseph Giordano, Chairman of the Standards Committee.  
12:30 p.m.—Luncheon in the Coronet Room.  
A Floral Demonstration for the Ladies will follow luncheon, sponsored by Ambrette Machinery Corporation.  
2:00 p.m.—Golf Tournament at Chula Vista for the Men.  
7:00 p.m.—Spaghetti Supper, sponsored by the Rossotti Lithograph Corporation.  
9:00 p.m.—Dancing on the Ocean Terrace.

#### Wednesday, June 22

8:30 a.m.—Early Birds Breakfast, sponsored by the Durum Millers.  
9:45 a.m.—Assembly for Second Business Session.  
10:00 a.m.—Macaroni in the Retail Store. A panel discussion with Lloyd E. Skinner, Skinner Manufacturing Company, moderator, and the following participants:  
J. Murry Yunker, Certified Grocers of California, Ltd.  
Clifford Haskell, Alpha Beta Food Markets  
Bruce Ronquist, Market Basket  
11:00 a.m.—Related Item Selling, by James B. Lane, President, Westgate California Tuna Packing Company.  
11:30 a.m.—"Macaroni's Place in Navy Chow", Lt. (j.g.) F. C. Poloquin, In Charge, Southwest Field Food Service Team.  
12:00 noon—Report of Nominations Committee.  
Election of Directors.  
12:30 p.m.—Luncheon in the Coronet Room.  
Board of Directors Organizational Luncheon in the Palm Room.  
2:00 p.m.—Trip to San Diego's famous zoo, for Ladies and Children.  
2:00 p.m.—Shop Talk in the Circus Room.  
Packaging Panel.  
2:30 p.m.—Product Improvement.  
3:00 p.m.—Miscellaneous Matters.  
7:00 p.m.—Dinner in the Coronet Room.  
9:00 p.m.—Dancing on the Ocean Terrace.

#### Thursday, June 23

8:30 a.m.—Breakfast in the Coronet Room, sponsored by DeFrancisci Machine Corporation.  
9:45 a.m.—Assembly for Final Business Session.  
10:00 a.m.—"What the Restaurant Man Wants from Macaroni Products", by Arthur Wynn, General Manager of Lawry's, Richlor's, Stear's and Tam O'Shanter Restaurants.  
10:30 a.m.—Report on National Macaroni Institute Activities, by Theodore R. Sills.  
11:30 a.m.—Report of Director of Research, James J. Winston.  
12:00 noon—Report of Secretary, Robert M. Green.  
12:15 p.m.—Report of Auditing Committee.  
Report of Resolutions Committee.  
12:30 p.m.—Luncheon in the Coronet Room.  
2:00 p.m.—San Diego Harbor Boat Trip, sponsored by General Mills.  
7:00 p.m.—Association Dinner Party.  
9:00 p.m.—Dancing on the Ocean Terrace.



## EASY SUMMER SERVINGS

National Macaroni Institute Campaign for Macaroni-Egg Noodles and Canned Meats Shapes Up

THE appeal of how to beat the heat and lagging summer sales is drawing enthusiastic response from the grocery trade.

The picture of Barbara Weiss, the cover girl on the current issue, has been published in many trade magazines calling attention to the macaroni-egg noodle and canned meat promotion, June 15 to July 31.

As brochures announcing the campaign state, here is a sure cure for that hot weather slump. Sales curves will zoom with the temperature in a promotion aimed at millions of consumers in 168 major markets of the United States. Canadian manufacturers will be in the drive too. Macaroni and canned meats for easy summer serving will be the theme. Grocers are urged to make it their theme for summer profits by moving macaroni, spaghetti, egg noodles, canned meats and related items. The campaign will be backed by nation-wide publicity, national advertising and point-of-sale material, which will consist of a large poster, 17"x22", in three colors. Acceptance of one and two column drop-in mats by the National Macaroni Institute indicate that grocers all over the country will be putting them to heavy use.

The mats give recipes for canned luncheon meat with a Chevron Macaroni Casserole; canned ham with Ham and Noodle Casserole; and Vienna



Chevron Macaroni Casserole

Sauce with spaghetti for Vienna sausages. Single column mats show an illustration of Dad preparing macaroni or egg noodles with canned meats, and will plug the campaign.

Publicity placements for the National Macaroni Institute through the Sills organization will saturate every type of medium with recipes using all varieties

of canned meats with macaroni, spaghetti and egg noodles.

Also on the industry level the Canned Meat Packers Association and the American Cattlemen's Association will be cooperating with publicity and merchandising efforts.

Canners cooperating in the campaign include Armour, Libby, Wilson, Cudahy, Swift, United Packers, Hormel, Buh, Morrell, Stahl Meyer, Illinois Meat Packing Company, Walker's Austex Chili, and others.

Meat is responsible for one out of every four chain, grocery and super market sales. No other department comes near it in sales volume. Canned meats are an important part of this traffic pull, particularly during the summer months. Alert macaroni and noodle merchandisers will be beating the heat and lagging sales with the Easy Summer Serving Campaign.

### July Is Picnic Month

The Bakers of America report that 531 newspapers ran special picnic sections last year. 18 major magazines had feature picnic articles and 591 radio stations used special scripts. An estimated 115,000 stores tied-in with advertising and displays. Macaroni and canned meats are a natural picnic combination and will be merchandised as such during the month of July.



Tomato Frankfurter Sauce over Noodles

are made everywhere...and they're best made from...

—for best results and increased consumer acceptance, because of Northern Star's constantly reliable quality and uniformity.



**Commander-Larabee**  
MINNEAPOLIS

DIVISION OF ARCHER • DANIELS • MIDLAND



## MERCHANDISING MEETINGS

**M**ERCHANDISING meetings were held in April by the National Macaroni Institute in Chicago and New Orleans. They completed a series of four meetings, with the first two held in San Francisco and New York City earlier.

Some 26 representatives heard Ted Sills, public relations counsel of the National Macaroni Institute, tell the Chicago group of the first hundred days of 1955 publicity placements obtained for macaroni, spaghetti and egg noodles. The box score showed some 22 major magazine breaks, numerous spots and placements in syndicated columns, plus food page editorial space, radio and television use of recipe and background material on macaroni and noodle products.

Secretary Bob Green reported on the numerous related item tie-ins that have been running since the first of the year. In the wrap-up on the Tuna-Macaroni Bake promotion, Gordon Ellis of the Pet Milk Company was quoted that their down-the-line coverage meant that their men personally called on approximately 50,000 grocery stores to merchandise point-of-sale material. In their group tie-up operation, they contacted 97 groups totaling 15,391 stores, providing them with 2,5612 point-of-sale pieces.

Close on the heels of the Tuna-Macaroni Bake campaign came the Swanson Chicken a la Queen promotion. By offering a 25c coupon redemption deal for 2 labels from their canned chicken or turkey, and a macaroni package, great enthusiasm was created right down the line from macaroni makers to distributors and consumers. Swanson ad-



IN NEW ORLEANS: Front row left to right: James H. Huffman, Norman E. Anseman, Joseph B. Cordaro, J. L. Tuiague, Wm. R. McHugh. Back row: Milton Surcouf, Hubert Fielder, Jr., Charles F. Hellbach, William H. Dodson, Warren H. Frommeyer.

vertising plugged the recipe and promotion in Sunday newspaper magazine ads May 15 and on the Bob Crosby and Robert Q. Lewis television shows throughout May.

The Olive Advisory Board ran national women's magazine advertising in May for a recipe featuring Monterey Spaghetti.

The California Almond Growers advertised Nut Crust Macaroni in the May issue of Woman's Home Companion.

Round-table discussions covered various merchandising matters. Incentives were stressed in the discussions. Both sales representatives and distributors want to know "What is in this for me?" The obvious answer is more money through faster volume, faster turnover. It will take clear communications to put across the impact that this national merchandising event will have.

### At the Chicago Meeting

Martin Moran, Chicago Macaroni Co., Chicago, Illinois; W. H. Alexander, Chicago Macaroni Co., Chicago, Illinois; O. A. Derickson, The Creamette Co., Minneapolis, Minn.; R. H. Schmidt, Crescent Macaroni & Noodle Co., Davenport, Iowa; A. Irving Grass, F. J. Grass Noodle Co., Chicago, Illinois.

Sidney Grass, F. J. Grass Noodle Co., Chicago, Illinois; Benj. J. Green, Arthur Meyerhoff & Co., Chicago, Illinois; Royce C. Martin, Martin-Williams, Inc., Minneapolis, Minn.; John J. Grant, Minnesota Macaroni Co., St. Paul, Minn.

Walter E. Villaume, Minnesota Macaroni Co., St. Paul, Minn.; Ernest J. Ravarino, Ravarino & Freschi, Inc., St. Louis, Mo.; Arthur Russo, A. Russo & Company, Chicago, Illinois; Lloyd J. Skinner, Mfg. Company, Omaha, Nebraska; John Jeffrey, Skinner Mfg. Company, Omaha, Nebraska; T. G. Luehring, Tharmer Macaroni Co., Milwaukee, Wis.

Allen A. Herbert, Amber Milling Company, St. Paul, Minn.; George Hackbush, Capital Flour Mills, Chicago, Illinois; W. L. Hoskins, Glenn C. Hoskins Co., Libertyville, Illinois; Al Jacobs, Milprint, Inc., Chicago, Illinois.

Ken MacDonald, Rossotti Lithograph Corp., Chicago, Illinois; M. J. Donna, NAWA Emeritus, Bradleywood, Illinois; Robert M. Green, National Macaroni Inst., Palatine, Illinois; Theodore R. Sills, F. R. Sills & Co., Chicago, Illinois; John Bohan, F. R. Sills & Co., Chicago, Illinois.

### At the New Orleans Meeting

James H. Huffman, Norman E. Anseman, Jerome L. Tuiague, William R. McHugh, Milton Surcouf, Hubert Fielder, Jr., Charles F. Hellbach, William H. Dodson, Warren H. Frommeyer all of New Orleans; Joseph B. Cordaro and Shreveport; Theodore R. Sills and Robert M. Green of Chicago.



AT THE CHICAGO MEETING: Kneeling, left to right: Ken MacDonald, Sidney Grass, Dick Schmidt. Standing, front row: Jack Luehring, Walter Villaume, Lloyd Skinner, Jim Hopkins, Buddy Cohen, Mr. O. A. Derickson. Back row: Ernest Ravarino, George Hackbush, Jack Grant, Art Russo, Bill Hoskins, Royce Martin, John Jeffrey.



**WELCOME ABOARD  
 THE GENERAL MILLS  
 EXCURSION BOAT  
 FOR A SCENIC TOUR  
 OF SAN DIEGO HARBOR**

### Convention Goers:

If you've ever longed for the life of the sea or the feel of a solid deck beneath your feet, here's your chance. Come aboard the General Mills Excursion Boat... you'll be off on a two hour tour of San Diego harbor. You'll get a first hand look at part of Uncle Sam's Pacific Fleet... hundreds of destroyers, huge aircraft carriers, submarines... the nation's largest Naval Air Training Station... shipbuilding and repair docks... the giant tuna canneries... and more.

Make it a point to be at the Hotel del Coronado dock at 2:00 P.M., Thursday, June 23 and be our guest on the sea.

Welcome aboard, mates... we'll see you at the convention!

General Mills

Durham, N.C.

Minneapolis, Minn.



## YOUR INDUSTRY AND YOU

By Glenn G. Hoskins, G. G. Hoskins Company  
Presented at the 7th Plant Operations Forum



GLENN G. HOSKINS

IN my search for an idea to present to you at this 1955 session of the Plant Operations Forum, I thought back over my thirty-eight years of association with the Macaroni Industry in an effort to select some theme upon which I felt I was unusually qualified to speak. There are many men in the Industry who may be better qualified than I to talk about current operations and problems, but I doubt if there is anyone who has been in a better position to evaluate the factors which make this the fine and progressive industry that it is today.

As an industry, we have kept pace with the great technological and social advances of our nation. We have constantly improved our position in the Food Industry. The per capita consumption of bread, potatoes, beans and many other staple foods with which we compete has dropped, while we have gradually forged ahead. I asked myself, "Why is this true?" And now I will try to draw upon my experience to answer this question.

In the life of an industry as in the life of the individual, the family and the community, there are to be found events which can be recognized as milestones—either of progress or of retrogression.

It seems to me that you whose span of years covers only a portion of the Industry in the United States would be interested in having the spotlight of experience turned upon the milestones along the way which have made the Industry what it is today.

It is the enterprise of the individual

that has made this and other business ventures successful. However, the individual quite often overlooks the contribution that has been made by factors outside of himself. There is a tendency for all of us to feel that we should not disclose our particular techniques and methods because by so doing we will be giving our competitors ammunition which will make them stronger in the battle between individual units in the Industry. A certain degree of this attitude is necessary, but we feel that sometimes such an attitude causes a company and the individuals in it to stop growing. We feel very definitely that the greatest good comes to those individuals and companies who work with others. It is for this reason that I think it is desirable at this time to point out some of the milestones along the way which prove the value of combining individual efforts for the good of the Industry and to the advantage of the individual.

Antoine Zerega of A. Zerega Sons, Brooklyn, was the first macaroni processor in the United States. He began operations in a very small way in 1849. Other plants were put into operation during the latter half of the 19th Century, but the growth of the Industry was slow. Our first record of production was for 1910 when 200,000,000 pounds were produced in the United States and 112,000,000 pounds were imported—which indicates that 312,000,000 pounds were consumed by 92,000,000 people or 3.4 pounds per capita. It is quite possible that lack of Industry organization was a factor in retarding the adoption of macaroni as a part of the American diet. It is certainly true that a very high percentage of the 1910 production was consumed by immigrants who had made it a part of their diet in the country of their origin.

The last year of big imports was 1914. Then 300,000,000 pounds were produced domestically and 130,000,000 pounds imported. In that year 99,000,000 people consumed an average of 4.34 pounds. World War I interrupted the importation of macaroni products and stimulated the growth of the Industry in this country. Nevertheless, the per capita consumption in 1927 was only 4.05 pounds. We may call this change to domestic production one of the milestones.

Now comes the introduction of outside factors to the benefit of the Indus-

try. Dr. Mark A. Carleton, of the United States Department of Agriculture, imported quantities of Kubanka from the Russian steppes in 1864 and it was thought to be particularly suited to the arid regions in the United States. Up to 1909 it was distributed by the Department of Agriculture. We can pay tribute to the Department of Agriculture and particularly the State of North Dakota for the work that they have done since 1900 to make durum wheat available to the growing Macaroni Industry. Our recent disaster in the loss of our durum supply is an Act of God which could not be prevented by any human agency. But the significant fact is that by co-operative action the United States Congress, the Department of Agriculture, the State of North Dakota, the durum millers, the National Macaroni Manufacturers Association and many Industry-minded manufacturers have been ready to step in and do everything possible toward replenishing our supply. The combination of these factors can be read as another milestone in the progress of the Industry.

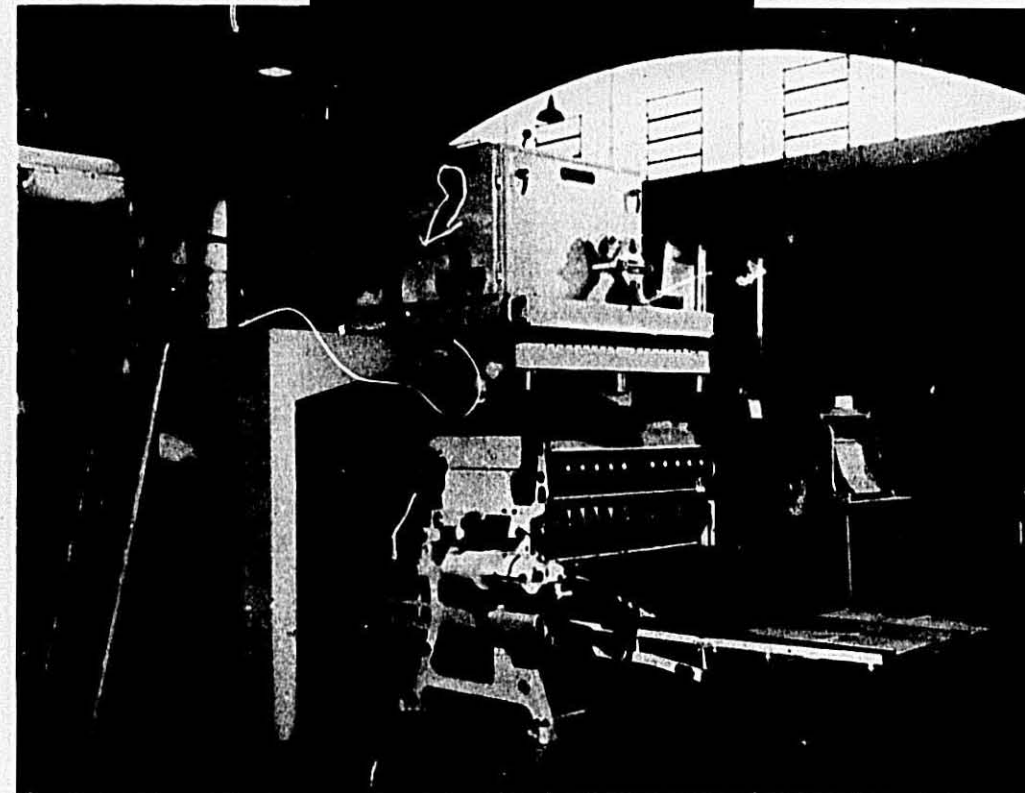
The Definitions and Standards of Identity for macaroni products were adopted in the Spring of 1945. They represent a consolidation of thought, research and accomplishment of many individuals and were the result of many years of conferences between Industry members and Government. They stand today as a monument to the men who were willing to give their time and effort to show the value of working together for a common aim.

You all know the history of the National Macaroni Manufacturers Association. I have seen it flourishing, vital and aggressive—and I have seen it in such a state of exhaustion that many of us felt it would pass into history as an organization that tried but failed. Yet, in those times of discouragement there was always one person or some group of individuals who were willing to set aside their personal prejudices and band together in the interest of the Industry.

To illustrate what can be done when the Industry is aroused, I want to list chronologically some of the milestones along the way that have been important in the growth of the Industry. In the late 20's the Industry banded together and subscribed \$1,000,000 for an advertising campaign. It was launched

(Continued on page 21)

## BUHLER



### TYPE ATB PRESS

For long and short goods, sheet extrusion and twisting operation. Shown in combination with double-twisting machine.

- Press capacities up to 550 lbs. per hour.
- Twisting machine capacities up to 650 lbs. per hour.



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BUHLER BROTHERS (CANADA) Ltd.

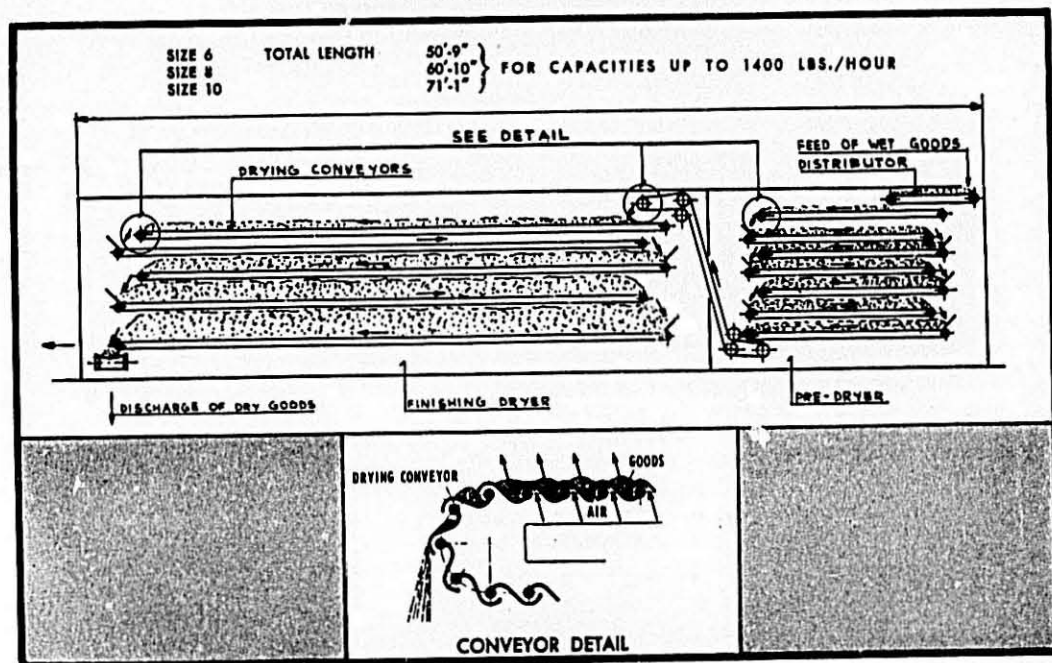
21 KING STREET WEST - TORONTO, ONTARIO



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- Absence of any frames, wire netting or transport cars - no screens to repair or replace.
- Uniform drying with path-controlled air flow.
- Integral air and humidity controls assure drying independent of exterior atmospheric conditions.
- Hygienic operating conditions. Easy accessibility for cleaning.
- Improved appearance and texture of goods.



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**BUHLER BROTHERS (CANADA) Ltd.**  
 24 KING STREET WEST - TORONTO, ONTARIO

# TESTS THAT REVEAL FLOUR QUALITY

By E. V. Hetherington, General Mills, Inc.  
 Presented at the 7th Plant Operations Forum



E. V. HETHERINGTON

FOR the benefit of this discussion, the word "flour" is used to denote durum flour, breadwheat flour, semolina, farina, and so called granular, which is known in the milling and macaroni industries as a blend of semolina and/or farina and flour.

Tests that reveal flour quality for flour used in the production of macaroni and noodle products are (1) Color, (2) Protein, (3) Mineral, (4) Moisture, (5) Granulation, (6) Specks, (7) Grit, (8) Insect Fragments, and (9) Cooking.

**Color**

Color is quite generally considered the most important quality factor. A deep amber color is to a large extent traditional for macaroni and spaghetti products. The deep amber color denotes richness and implies the use of durum wheat which possesses such color value. Durum wheats also have gluten qualities that are particularly desirable for the production of quality macaroni and spaghetti products.

Probably the easiest method for determining color is by comparing one flour product with another or previously selected standard products. The color may be compared by slicking one sample beside the other and viewing them either in a dry state or after wetting in a tank of water. Better color evaluation can sometimes be made by drying the wetted product. This is called the Pekar Test. Such a comparison will allow for a quick appraisal of color value. Variations in granulation, however, will bring about some error in this test as coarser products usually appear better in color. More finely ground products give the appearance of whiter color. Therefore, when using this test only products quite similar in granulation should be compared. Other tests that reveal flour color

are laboratory produced dough slabs and macaroni or spaghetti. These tests are more time consuming than the slick test, but reveal more accurately the inherent color value of the flour product. The dough slab test consists of mixing a small quantity of flour or granular product in a small mixing unit similar in design to the batch type mixers used in the macaroni industry. The dough is subsequently worked and then rolled into a sheeted product or slab. The slab is then dried and compared to a known standard previously established. The production of experimental macaroni products is carried out in equipment similar in design to the batch type system known in the macaroni industry. The quantity of product processed may be only two or three pounds. These products, when dried, are judged in comparison with known standards and their color established accordingly.

**Protein\***

The protein or gluten quality of flour and farinaceous products used in the production of macaroni and spaghetti is quite important and second only to color value. Color commands first place and protein second if there is a choice of products that show reasonably satisfactory quality for both factors. Protein is an indicator of quality as regards tolerance to shop practices and to cooking practices. The protein content of wheat and, therefore, products made from it will vary from crop to crop depending upon growing conditions. Protein has a definite economic value. In years when the wheat crop is relatively low in protein, premiums are paid for wheats above the average protein content.

**Mineral or Ash\***

The mineral test is used as a guide to flour quality in a general way only. It is not necessarily indicative of color, and, therefore, if the color is satisfactory, mineral content is of no particular importance.

**Moisture\***

Flour moisture is not considered an indicator of flour quality unless it deviates considerably from normal. Normal moisture for various milled products ranges from approximately 13.0 to 15.0% and will average about 14.0 to 14.5%.

**Granulation**

Products such as semolina and farina vary in granulation. The Federal Stand-

ard of Identity for these products states that,—"It passes through a No. 20 sieve, but not more than three percent passes through a No. 100 sieve." The portion passing through a No. 100 sieve is considered to be of flour granulation. Granulation as such has no significant bearing on quality.

Granulation tests are made at the mill on all granular products produced. These tests are made for two reasons: (1) So that the products, semolina and farina, conform to their standard of identity regarding coarse and fine material, and (2) So that each product milled may be held to a relatively uniform granulation.

Sifting tests are variable, but most mills make a granulation separation test by using five to seven sieves in a rotap sifter. The government specifies top and bottom sieves of No. 20 and No. 100 with sieves such as 35, 40, 45, 60 or others in between may be used. The government has established in the standards the following sifting method: "Fit a No. 20 sieve into a No. 100 sieve. Attach bottom pan to the No. 100 sieve. Pour 100 grams of the sample into the No. 20 sieve. Attach cover and hold the assembly in a slightly inclined position with one hand. Shake the sieves by striking the sides against the other hand with an upward stroke, at the rate of about 150 times per minute. Turn the sieves about one-sixth of a revolution, each time in the same direction, after each 2' strokes. Continue shaking for two minutes. Weigh the material which fails to pass through the No. 20 sieve and the material which passes through the No. 100 sieve."

**Specks**

Bran and other specks must be given consideration in granular products. When grinding wheat, small particles of bran will adhere to a piece of the endosperm or inner part of the wheat berry. Free bran (bran without adhering to the endosperm) is removed during the general air purifying operation of the middlings. The miller gives speck removal every consideration and removes, in so far as possible, bran particles from the middlings.

**Grit**

Grit is at times found in very minute quantities in granular products. The grit is a result of small stones finding their way through the cleaning machinery with the wheat. The miller has incorporated in his cleaning system a machine or machines for the removal

(Continued on page 14)



## HARD WHEAT FOR BLENDS

By Pierce U. Wheatley, Capital Flour Mills  
Presented at the 7th Plant Operations Forum

IT is most important to make the proper selection of hard wheats to get the best products possible for the production of macaroni and noodles. We don't know for sure what other Durum Mills are doing along this line but we at Capital give this selection of proper hard wheats top priority in our Durum Laboratory.

What are the basic factors we are looking for in a hard wheat? (1) Gluten Characteristics, (2) Color (Yellow pigment and brightness), (3) A wheat that blends well with other hard wheats and durum we are using, (4) Milling characteristics, (5) Cost delivered to our mills.

In macaroni and spaghetti manufacturing we are looking for an entirely different kind of hard wheat gluten than we look for in bread flour milling. In bread flour we want an elastic, bubble gum type of gluten which will expand without breaking as the dough ferments and produces the gas which makes the bread rise. In macaroni and spaghetti production we want a tough, non-elastic type gluten which won't stretch when the spaghetti or long macaroni is placed on the sticks.

Many people look to protein analysis as a yardstick to determine gluten characteristics. This might be true for a certain type or variety of wheat coming from a certain locality, but protein analysis doesn't necessarily determine gluten characteristics. Once we start looking at wheat from a different locality or even a different variety from the same location we are liable to get entirely different results. We have tested hard wheat products ranging from 10.00 protein to 12.50 protein. In many cases the 10.00 protein product was equal to or superior in cooking characteristics to higher protein products. Therefore, the answer is proper selection of hard wheats for gluten characteristics and not random buying of high protein hard wheats.

We look for as hard and vitreous a wheat as possible. We have learned from experience that generally speaking the harder the wheat the less leaching of starches we will have when the finished macaroni product is cooked. The hardness and vitreousness also helps in milling out a granular or farina type product.

Now that we have our hard wheat selected we must decide how we are going to mill it. We believe most noodle manufacturers use flour in their production. There is a vast difference, how-



Paul Petersen and Pierce Wheatley

ever, in the type and quality of flours used. To make a top quality noodle we should be primarily interested in getting a bright flour, preferably a short patent flour. A good bright deep colored egg can give a flour lots of color but if that flour is dull in color it will take a lot of eggs to cover up that dullness. Eggs also tighten the gluten and improve the cooking characteristics.

In the production of macaroni and spaghetti we are looking for: (1) Cooking Characteristics; (2) Color (Yellow pigment and brightness); (3) Dress or speckiness; (4) Cost.

Let us assume we have one specific type of wheat and are going to look at each of the different types of products we could produce as primary products from this hard wheat in order of their superiority in each of the above categories.

**Cooking Characteristics:** (1) & (2) Granular and Farina; (3) & (4) Straight flour and Short Patent flour. The granular and farina products would have less leaching of the starches in cooking.

**Color:** (1) Farina; (2) Granular; (3) Short Patent flour; (4) Straight flour. The Farina product would be more translucent.

**Dress:** (1) Short Patent flour; (2) Straight flour; (3) Granular; (4) Farina.

**Cost:** Straight flour; (2) Short Patent flour; (3) Granular; (4) Farina. Usually it costs the least to produce a Straight flour and the most to produce Farina.

You will get the best hard wheat products from the Durum Mills who have the proper facilities to test and produce those products. The Durum Mills know the macaroni manufacturer's problems and what he is looking for in

a hard wheat product that comes as close as possible to Durum characteristics. Work with your Durum Mills and you will receive the best hard wheat products available.

### Flour Tests —

(Continued from page 13)  
of stones. Many stones are picked up with the wheat from the fields at harvest time. Some of these stones are the size of wheat, and are, therefore, difficult to remove. Occasionally a small stone is not removed in the special cleaning equipment. This stone will then be ground into fine sand or grit.

**Insect Fragments and Rodent Hair\***  
The occurrence of insect fragments in flour products varies with the hidden infestation in wheat. The wheat X-ray test is used in determining the amount of hidden infestation in wheat with wheat selection being made accordingly.

Insect fragments in flour are determined by filtration and microscopic test. This test also reveals the occurrence of rodent hair, which occurrence is rare. Mills are continually searching for new ways of producing products that will further eliminate foreign substances from flour products.

### Cooking\*

Cooking of macaroni products is the final test of flour or granular materials. Products should be observed at various intervals during cooking. A product is considered to be cooked when the white center, which is the under cooked product, disappears. Most products show good cooking quality at this length of cooking time. To test the product cooking tolerance the cooking time should be extended to about 20 minutes for thin walled products and to 30 minutes for thicker walled products. Differences in products are more easily noted at the extended cooking time.

Products should be cooked in a ratio of 8 parts of water to one part of macaroni or spaghetti.

During the extended cooking period the following should be observed and recorded: (1) Firmness, (2) Chewiness, (3) Collapsing of macaroni products, (4) Sloughing off of product surface, (5) Pastiness, (6) Sedimentation in cooking water.

\*Refer to the following for methods: Official Methods of Analysis of the Association of Official Agricultural Chemists, or to Cereal Laboratory Methods—American Association of Cereal Chemists.

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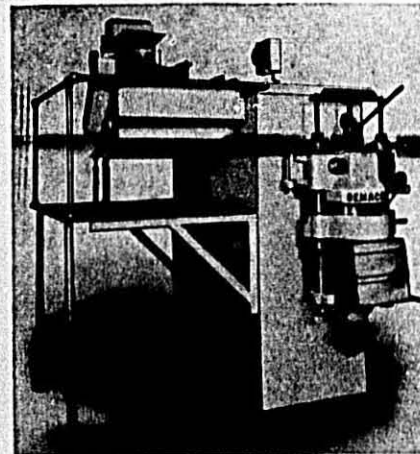
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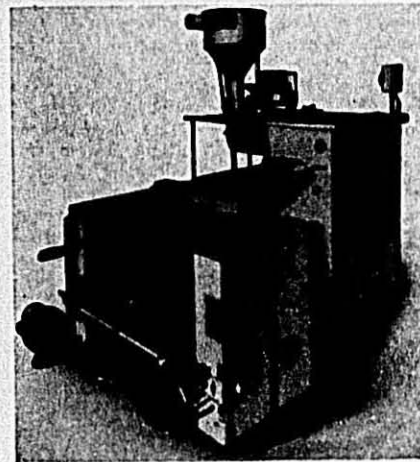
A newly designed 2nd Stage Dryer with a **New Air Circulating System**. The dryer that will reduce the moisture content to 18 per cent. In a recent installation the final room drying time for spaghetti was cut from 72 hours and more to 28 hours. Please write for further information.

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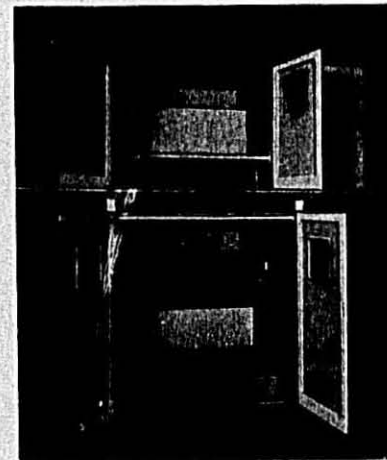
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# USE OF GLUTEN IN MACARONI

By James J. Winston, Jacobs-Winston Laboratories, Inc.



JAMES J. WINSTON

The following experiments were undertaken by the Jacobs-Winston Laboratories, Inc. in order to determine the effects of the use of Huron gum gluten in macaroni products.

The spaghetti products were manufactured under strict supervision and made from the same farinaceous ingredients. In their investigation, the laboratory made use of the following blend: 75% farina admixed with 25% durum semolina, which is the mixture being used today in the manufacture of macaroni products. These products were manufactured, using the batch system, where the same mixer, kneader, hydraulic press, and similar drying rooms were used throughout. Pressure during extrusion at the hydraulic press was maintained at the same level.

Therefore, three samples of spaghetti were manufactured. Sample #1 constituted their standard spaghetti with no Huron gum gluten added; sample #2—spaghetti brought to a level of 12% protein; sample #3—spaghetti brought to a level of approximately 13% protein. The following analyses of these samples shows the protein (Nx5.7) and ash percent. Sample #1—10.76% protein\*\*, 0.51% ash; sample #2—11.97% protein\*\*, 0.51% ash; sample #3—12.70% protein\*\*, 0.52% ash. \*\*Protein reported on a 12% moisture basis.

The question of mechanical strength of the macaroni product has always been regarded as one of the criteria of its quality. A good macaroni product should be capable of being bent, should

be hard, translucent and elastic. Consequently, the effect of gum gluten on the mechanical strength of the spaghetti products was evaluated. In the laboratory, they determine the strength of a product by its resistance to breaking. The average breaking strength of ten strands of spaghetti is taken as the breaking strength of the product. Individual breaking tests seldom vary more than 10% in the same sample. The results of this test on the three samples of spaghetti were as follows: Sample #1—breaking strength 40.4 grams; sample #2—breaking strength 43.8 grams, 8.4% increase; sample #3—breaking strength 44.5 grams, 10.1% increase. It is to be noted that as the protein content is increased, there develops a greater resistance to breakage.

The three samples of spaghetti were also evaluated for color scoring, since color has always been considered an important criterion in the quality of macaroni products. Color tests were determined both by chemical means to measure the carotenoid pigments, and also visual tests to determine the reflected light, using the Wallace & Tiernan disc colorimeter. Sample #1—10% yellow, 17% brown, 1.0 color PPM\*; sample #2—10% yellow, 17% brown, 1.0 color PPM\*; sample #3—8% yellow, 19% brown, 0.80 color PPM\*.

\*Carotenoid pigments in terms of carotene in parts per million. The results of this color test showed that up to a level of 12% protein obtained by the use of gum gluten, there is no reduction in color score. However, raising the protein content above 12% by means of gum gluten, reduces slightly the carotenoid pigments and percentage of yellow, and increases the brown. A spaghetti product should

have a maximum of yellow and a minimum of brown, in order to create the best color appeal.

Another experiment was undertaken to determine the changes taking place during the cooking process. It was deemed advisable to determine the percentage increase in weight and volume after cooking, and also the dissolved solids in the cooked water. Preliminary experiments were made to determine the cooking time of each sample. The cooking time of the three samples of spaghetti was determined by different analysts, as follows: Sample #1—13 minutes; sample #2—15 minutes; sample #3—17 minutes. The diameter of the spaghetti measured 0.082 inches.

These products were cooked in accordance with the following standard procedure—a procedure adopted as a result of an investigation made into home methods of cooking macaroni products by the laboratory:

Eight ounces of spaghetti are dropped into two quarts of boiling tap water, containing 1% salt. The spaghetti is boiled briskly for the stipulated amount of time, counting from the time the spaghetti is dropped into the water. The spaghetti is then drained through a colander, or strainer. Experiments showed that by maintaining the cooking time for the various spaghetti, as stipulated above, the resulting cooked product had approximately the same degree of tenderness. The cooked products were examined carefully, and the following determinations were made: (1) percentage weight increase; (2) percentage volume increase; (3) percentage of residue. In each instance, four cooking tests were made of each individual product, and the average results are reported as follows:

### VOLUME AND WEIGHT INCREASES AND PERCENT RESIDUE (Average of four cooking tests)

Sample #	Increase in Volume	Increase in Weight	Residue*
1	194.5%	152.0%	5.73%
2	199.0%	154.0%	5.20%
3	201.0%	170.9%	5.18%

\*Dissolved solids in cooked water indicating the degree of disintegration.

The results of these cooking tests showed that as the protein content is increased, owing to the addition of gum gluten, there is a slight increase both in volume, and in weight, and a decrease in the amount of dissolved solids in the cooking water. It is to be noted that where the spaghetti is cooked for the longest length of time, that is, sample #3 cooked for a period of 17 minutes, there results the least amount of residue because of the protein having been

raised to 12.7%. This product, in the opinion of the Jacobs-Winston Laboratories, would serve the canning interests, since this would yield a product that would have good resiliency and appearance, after vigorous heating.

It is also their opinion, based on the foregoing experiments, that protein level of from 12% to 13% would be most desirable to promote improvement in the quality of macaroni products.

## REMEMBER THIS . . .

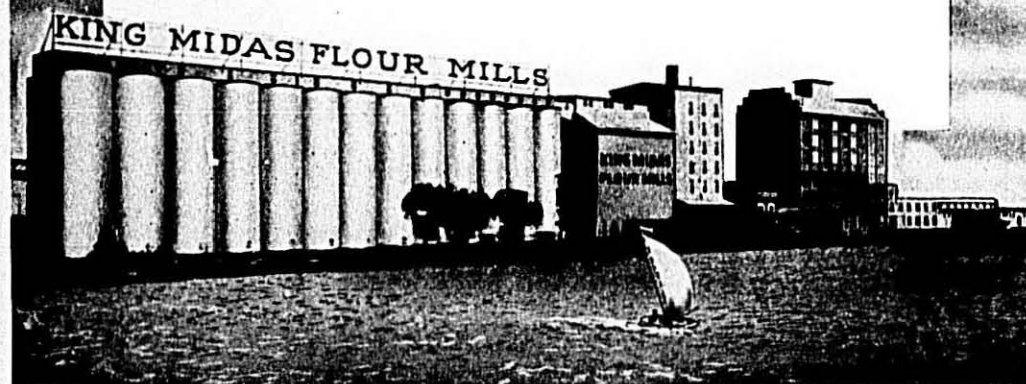
. . . when you're ready to buy durum products!

Milling of durum products requires constant supervision to assure uniformity and quality of product—terms that have long been synonymous with the name King Midas.

The King Midas durum mill pictured here specializes in producing macaroni and spaghetti flour. This mill is ideally located for its purpose in the "air conditioned city" of Superior, Wisconsin. The cool summers and the low humidity are ideal from a milling standpoint, and are further assurance that quality and uniformity of product are maintained.

While it is fitting that the growing movement of bulk semolina shipments should have started at this modern mill on the shores of Lake Superior, the facilities for bag shipments are also unexcelled. Both bulk shipments and bag shipments are loaded in the mill's completely enclosed warehouse, where they receive every protection from the weather.

All these advantages are in keeping with our long standing policy of progress and service, and our pledge to the macaroni industry to consistently deliver the finest quality durum products and the best in service.



Durum Products by

**King Midas**

KING MIDAS FLOUR MILLS • 660 GRAIN EXCHANGE • MINNEAPOLIS 15 • MINN.





### Advertising for Wheat

An editorial from the May 3 issue of *The Southwestern Miller*.

WHILE the carryover of wheat in the United States at the end of the current crop year is now forecast at 1,000,000,000 bushels, a new high mark, and while present 1955 production prospects point to total supplies of wheat for 1955-56 close to the record of this year, one organization of American wheat consumers is advertising for increased plantings for this year. The advertiser is the National Macaroni Manufacturers Association, which is calling upon wheat growers through local newspapers in the durum areas of the Dakotas, Montana and Minnesota to provide 40,000,000 bushels of durum. Such a crop would compare with the pitifully low outturn of only 5,557,000 bushels of durum in 1954 and the 1931-52 average harvest of 35,486,000.

In the advertisement of the National Macaroni Manufacturers Association for the production of more durum wheat, the text of which appears in other columns, the statement is made that the industry can readily use a mill grind of more than 25,000,000 bushels in 1955, that cereal manufacturers will need 1,000,000 to 3,000,000, exporters about 7,000,000 and seed requirements will exceed 3,000,000. The contrast between the total of these estimates and the outturn of only 5,557,000 bushels of durum in 1954 explains why durum wheat is selling at a level close to \$4 a bushel and provides an explanation for this advertising appeal.

Besides pointing to the demand for durum, the association calls attention to the special exception recently enacted for the production of this grain in excess of marketing quota and acreage allotment limitations for 1955.

"It will pay you in good hard cash because durum commands premium prices far above government price supports," the advertisement concludes.

The unusual advertising of the National Macaroni Manufacturers' Association, which is attracting wide attention, is not the only plea of consumers of wheat for increased production to meet their requirements at a time of record supplies in the United States. Every day, every hour, the quotations of cash wheat markets are serving as

pleas to growers to produce more quality bread wheat for milling and baking. In Kansas City, for example, premiums of as much as 45¢ cents a bushel are quoted over the Kansas City May future price for the quality offerings of the highest protein. Such quotations are also saying to the growers that successful concentration upon bread quality wheat "will pay you in good hard cash."

### Durum Planting

Here's a roundup of a county-by-county survey by the NMMA on county agents' opinions on availability of seed, growers' intentions to plant and weather conditions:

**MINNESOTA.** Durum seed is scarce and high priced. Planting intentions are up from 2,000 to 8,000 acres in one county, with some increase in others. Weather conditions make for early planting. One county agent reports, "The durum industry has done a good job in dulling the farmers mind as to the terrific beating he has taken the last three years, so he is planting a few acres again this year. We are not an important durum area, but many small acreages are being put in, more than for several years. Most farmers realize they are playing with fire."

**NORTH DAKOTA. Northeast Section**—Seed is plentiful, but acreage has been cut back in most counties from 25% to as high as 65%. Planting is early. One county agent reports, "Although we expect at least a 25% increase, the outlook for durum producing area is estimated at about a 25% decrease. We are not a heavy durum producing county."

**East Central**—Seed supply short and intentions varied from below 1951 to 25% increase. Weather indicates early planting. Farmers expect a fair to good crop.

**Southeast**—Enough seed with a sizeable increase in acreage. Weather permits normal to early planting.

**South Central**—Seed is scarce and high priced. Intentions are up to 500% increased with early planting. Average production is low so there will be only a small amount of durum produced.

**Central**—Seed is available, with planting intentions reduced in some areas and tripled in others. Planting is early. Some of this section is outside of durum area.

**North Central**—Seed is plentiful, but only fair quality. Intentions vary from less than normal to same as 1951. Planting is early. Most farmers are being cautious and some are trying new rust-resistant varieties.

**Northwest**—Seed is scarce, of light weight and very high. Intentions up from last few years, with some farmers planting durum for the first time. Weather conditions permitting planting 10 days to two weeks early.

**West Central**—Seed is scarce and high. Intentions are small with planting conditions normal to ten days early. Many farmers are afraid of the durum seed being mixed with hard red spring wheat and are turning to other wheats because of this.

**SOUTH DAKOTA. Northeast Section**—Recommended varieties of durum seed in short supply, others available but of poor quality. Some counties expect up to 10% increased planting but most will be below normal. Weather conditions permit early planting. Farmers are afraid of 15B rust, but as soon as rust resistant varieties are more common, acreage will revert back to normal.

**East Central**—Good seed is in good demand, but price is high. Intentions were considerably increased in most counties, but a few with very little. Planting is early, although rain is needed. Mixed seed discredited durum.

**Southeast**—Seed is very scarce and planting intentions are very limited. Planting is early in counties that raise durum. This is outside the durum area.

**Northwest**—Seed is scarce and very high. Intentions are very small and weather conditions permit early planting. Durum is too high a risk in this area.

**Southwest**—Seed is scarce with very small planting intentions. Moisture is needed.

**MONTANA.** In most counties seed is available, but high. In one county, if seed prices were lower, there would have been good acreage. In one county as much durum as possible is being planted, with 2,000 to 15,000 acres being planted in others. Weather conditions in most counties indicated late planting. This is a new durum area and if more seed were available and the price was lower, there would have been considerably more acreage planted. Prospects are fair to good.

**CANADA.** From Catelli Durum Institute Report of May 1.

**Southern Manitoba and Southeastern Saskatchewan**—With provincial Departments of Agriculture recommending that no durum be seeded here, the delayed seeding and reports of a build-up of rust spores in Texas, the seeding in this area will be greatly decreased from the 200,000 acres planted in 1954. A large acreage of poor quality Golden Ball durum in Saskatchewan will tend to offset this drop to some extent.

**South Central and Southwestern Saskatchewan**—A large increase over the 1954 estimate of 450,000 acres is expected. The quotas on Northern (bread) wheats serve to point out that non-quota Durums may be a better crop to sow. Durum crop prices will be much above the Northerns. The greatest proportion of low quality durums have come out of this district in the past and this will continue in 1955 despite the 10¢ per bushel premium paid by the macaroni industry for high quality durum. Demand for seed of quality varieties is good. In the overall picture, this region should be more valuable to Canada's macaroni industry than ever before.

**Southern Alberta**—With reasonable crop weather this year, this area of the province could become the most important production area for good durum wheat in Canada. The estimated 80,000 acres seeded in 1954 should at least double in 1955. No quota and high prices will provide adequate incentive to farmers. There will still be a large acreage of Golden Ball on the light-textured land, but the higher quality Stewart will probably be the leading variety, with small acreages of Mindum and Nugget being seeded as well.

### Durum Seed Plans Outlined

The winter increase crop of durum seed planted in Arizona for use in North Dakota should be ready for harvesting early in May and back in the state for seeding about the middle of May, according to T. E. Stoa, chief of the division of plant industry at the North Dakota Agricultural College.

The seedings will be confined mainly to the durum growing counties, with the larger share going to more northern counties where the hazards from late sowings are usually less, Mr. Stoa explained. "Obviously," he added, "we cannot say what the yield will be now and must make arrangements on an anticipated yield of 7,200 bu. in the hope that it will be a near estimate. The allotments will be based on 1940-49 acreages of durum and the history of good durum production in the various counties. Also taken into account is the fact that the seed will be available only for late planting."

Mr. Stoa states that the primary interest of the increase program of durum able to resist 15B stem rust is to get the best and most seed possible for greater distribution in 1956. The increase would be endangered if not put into the good durum areas.

Four varieties have been developed at North Dakota Agricultural College for increase. They are Ld 364, Ld 369,



Ld 370 and LD 372. Yields of these four ranged from 43.8 bu. to the acre to 51 bu. at the Langdon Experiment Station in 1951.

Contracts under which the increase is being made call for 100% control of the increase by the experiment station. "This is to protect the grower," Mr. Stoa said, "as well as the station. Obviously, if all goes well and the seed is distributed the contract grower will be allotted a share of the seed for his own use, if he so desires."

The method of selection of growers will be the same as under the Selkirk hard wheat increase program. Some counties have already started taking names for the distribution, which will be made by the crop improvement associations or similar organizations. Allotments may have already been made in some counties.

The price of the seed cannot be determined until the crop is harvested and the seed returned to North Dakota.

Mr. Stoa said, "We will be obliged to charge what the cost of the increase comes to, and this is expected to be somewhere between \$7.50 and \$10 bu."

The 100% contract which growers will sign this spring states that after it has been increased the yield will be sold at a stipulated price of \$2 over local card or loan price for certified blue tag with discounts of 25¢, 50¢ and \$1, respectively, for red tag, yellow tag and non-certified seed.

The new rust-resistant durum wheats now being increased in Arizona, will not be available to Minnesota seed growers for increase before 1956, according to Carl Borgeson, associate professor of agronomy at the University of Minnesota. An allotment of the forthcoming harvest of seed of the new durums, will be increased by the University of Minnesota's Agricultural Experiment Station and seed allotted approved Minnesota seed growers early next year.

### Your Industry —

(Continued from page 10)

with great enthusiasm, the energy trio became a symbol of co-operation, but it was destroyed by selfish interests. Yet, out of it came:

A standard cost accounting system for the industry;

A shift from bulk to packages; Improved techniques in trade merchandising and consumer advertising—and above all recognition of the industry as an important part of the whole Food Industry came into being.

Then came the Depression and the NRA. I wonder if you realize that every known manufacturer in the United States signed a Certificate of Compliance with the Macaroni Code? There were undoubtedly many manufacturers who felt that the imposition of Government control was wrong. Nevertheless, the Macaroni Code under the National Recovery Administration placed the Macaroni Industry definitely as a separate and important section of the Food Industry and gained recognition throughout the United States for macaroni and noodle products.

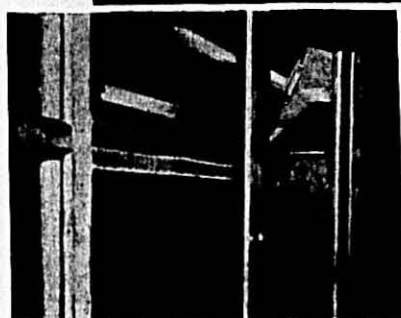
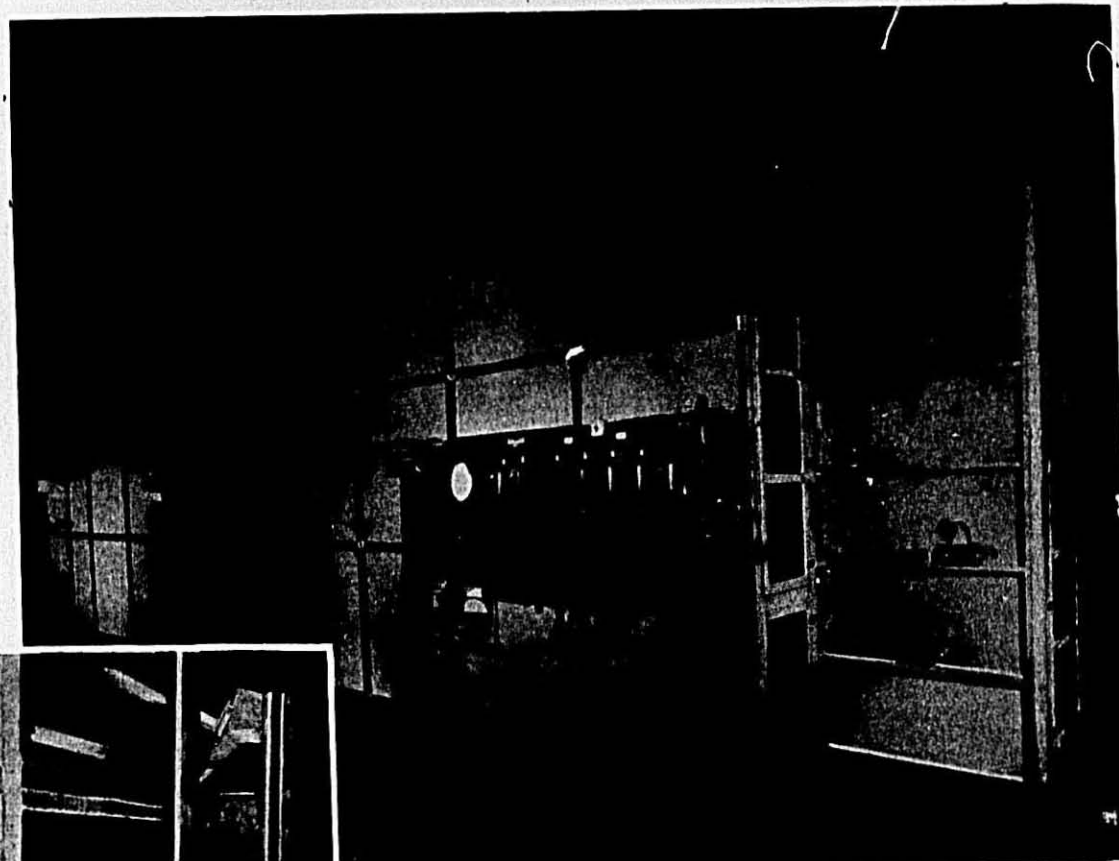
This leads us to the present time. I think the best illustration of voluntary co-operation without the help of outside agencies is in the work being done by the National Macaroni Institute. I cannot too strongly impress upon you the need for your understanding of this work and your willingness to be a part of it. It is true that most of you are production-minded, but never forget that you won't have any reason to produce if the consumer does not buy.

I hope that I have made it plain that regardless of how strongly competitive you are as individuals you owe so much to the work which has been done by others that you must, in all justice, do your part by working with others to hold what you have gained and to build for the future.



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Side view noodle finish dryer taken at plant of Thuringer Macaroni Company, Milwaukee, Wisconsin.

Clermont's noodle and short cut dryers are the only dryers that have conveyor screens that interlock with stainless steel side guides.

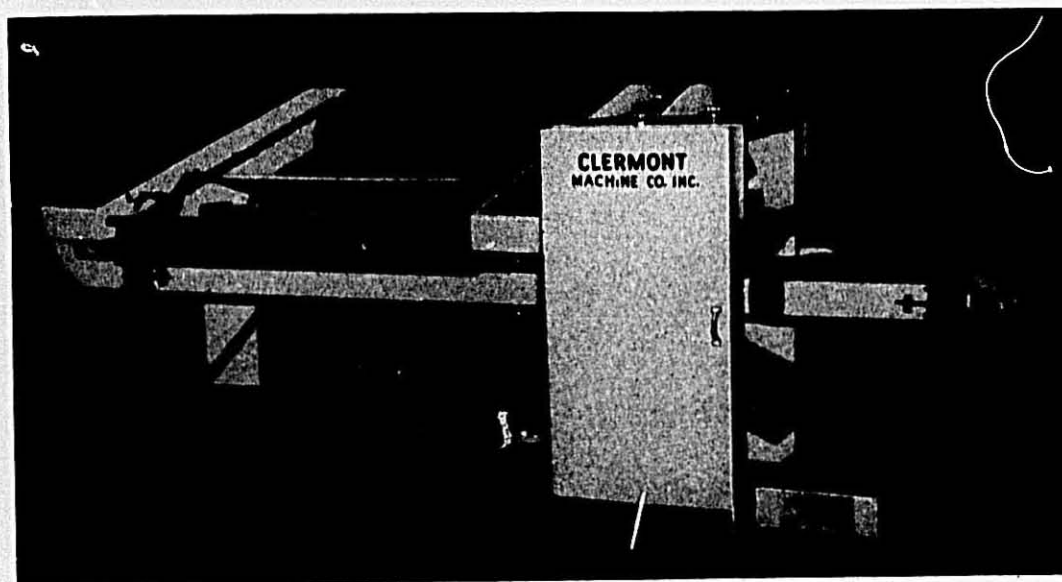
Also only Clermont dryers are enclosed with  $\frac{3}{4}$ " thick heat resistant panel boards that never need painting, retain their fine appearance year in and year out, never blister, never crack. Many other features are incorporated that are solely Clermont's.

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- If operated in conjunction with an automatic long goods dryer the operation is continuous.
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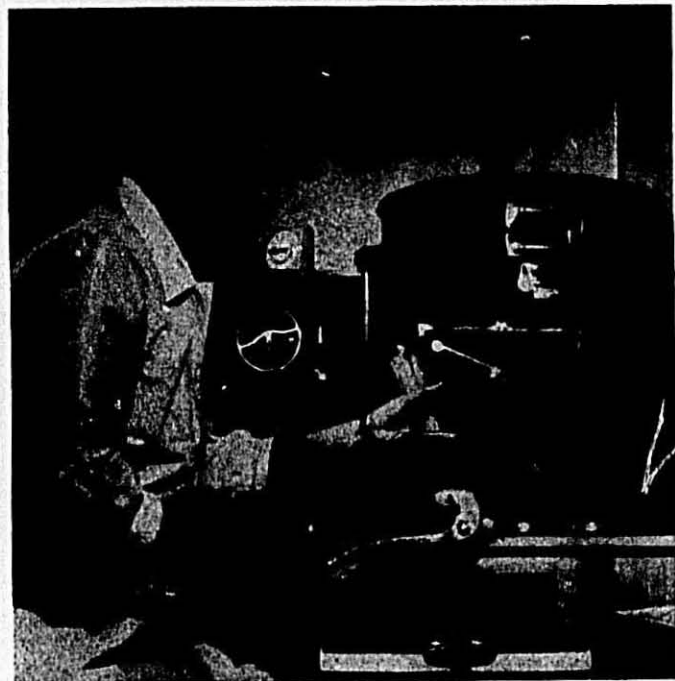
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## TESTING FOR QUALITY AND TASTE

By Clarice Rowlands of the Milwaukee Journal Staff



CHECKING MACARONI PRODUCTS for uniform moisture content is one of the tests Miss Rita May Tharinger, home economist and vice-president of the Tharinger Macaroni Co., conducts in her laboratory office. Here she grinds finished spaghetti to a fine texture similar to flour preparatory to placing it on a small metal tray for weighing on the balance, center background. The small round trays are then placed in the moisture tester, right, which automatically records the moisture in the spaghetti.

**A**VOID overcooking macaroni, especially if you use it in a casserole with sauce. It should be a little bit chewy.

This is advice given homemakers by Miss Rita May Tharinger, Milwaukee home economist, who knows all the answers to questions about macaroni, spaghetti or egg noodles. She's the woman behind the recipes you see on packages of White Pearl macaroni. And she's probably as well qualified as any woman in the midwest because she's actively associated with the manufacture of the products in addition to testing them.

Rita readily points out qualifications the homemaker can check when she shops for macaroni, spaghetti and egg noodles. "Macaroni and spaghetti should have a smooth, satin finish," she says. "Its color should be golden, rather than gray. Egg noodles should not be translucent. Instead they should have a more firm look and a good

yellow color. This is why we like dark yellow yolks and constantly test their color to see that we're getting what we want. We always check the yolks from our supplier before we accept them."

Although Rita admits she "grew up in the plant" which her father, William A., headed until his death in 1926, she didn't join the firm on a full time basis until 1946. For 10 years prior to this, she was a home economics teacher in Milwaukee public schools following her graduation from Milwaukee-Downer college, where she majored in foods and nutrition. She has served as vice-president of the company for 14 years. Rita's duties are many. In addition to her executive responsibilities in collaboration with J. G. Luehring, president, she is particularly interested in the quality of the food products going to the homemaker. She is as familiar with the plant operation as her office, working closely with the plant superintendent

who brings her samples of spaghetti, macaroni and egg noodles directly from each of the finish dryers, last step in the manufacturing process. These she measures with a micrometer to check uniform thickness. She also subjects them to moisture tests, as illustrated, to see that the moisture content meets the company's requirements. And finally, she uses the products in dishes she recommends to the homemaker buying them.

In addition to her laboratory and kitchen work, Rita is in charge of the company's advertising. She also prepares recipe folders for new products. These feature dishes she has prepared in her laboratory kitchen. Recipes appearing on product cartons are the result of her testing and so are the carton designs. She has appeared as a TV demonstrator in Milwaukee and Green Bay.

"When the homemaker uses our products in some of her favorite dishes, little does she realize the rigid laboratory testing for constant uniformity in size and quality. When our company introduces a new product or recipe to the consumer market, you can be absolutely assured that process has undergone many months and sometimes years of testing. Although we have done moisture testing of our products for years or, a small scale, the installation of the new equipment lining one side of my office makes the testing even more thorough," she declares.

"My father would be amazed to see the great change in the manufacture of macaroni products. When I was a little girl I can remember his coming home and telling how trays of macaroni were mildewy and had to be thrown away. This was caused by high humidity. This does not happen today because of our automatic dryers," she said.

Rita tells how the complete manufacturing process today is conducted without the products being touched by human hands. Most of this mechanization has taken place within the last 10 years. Egg noodles are the easiest to dry, she adds, and these can be manufactured, packaged and shipped in a day. Long macaroni, however, requires from 40 to 60 hours for drying and short macaroni about 24 hours.

When Rita and fellow officers at the company discuss their products now, they describe them as vacuumized macaroni and spaghetti. This, she explains, refers to the recently installed vacuum equipment on all of its continuous, automatic presses.

"The first step in the manufacture of macaroni and spaghetti is a mixing process in which flour and water are thoroughly blended into a firm dough. The dough is then extruded through the die which forms it into the shape of the finished product. Formerly, this mixing process took place in an open mixer. This allowed air to be incorporated in the dough, forming tiny air bubbles which were distributed throughout the mixture. These air bubbles materially affected the color and cooking qualities.

"Under the new system of mixing, the dough is mixed in a vacuumized chamber instead of an open mixer. The purpose of the vacuum is to produce a deaerated dough giving a finished product which differs greatly from the product mixed in an open mixer. Macaroni and spaghetti mixed under vacuum have improved color, texture, cooking and eating characteristics. This process seals in flavor and improves quality. The color is a deeper yellow. The texture is smoother because most of the air is eliminated from the product, giving the surface an almost satiny-like finish. The product remains more firm during the cooking process because of the absence of air bubbles," she emphasizes.

There are numerous sizes and shapes of macaroni products, Rita indicates. Among those turned out by her company are long and elbow macaroni and spaghetti, large and small shells, alphabet soup rings and five widths of egg noodles.

"Because so many people are diet



EGG YOLK COLOR, which is important in giving egg noodles a good yellow color, is checked by Miss Tharinger with the help of a photometer, the instrument shown in the center. It tests the consistency of egg yolk color. She demonstrates how she adds acetone and mixes it with egg solids, which the company buys frozen. A small sampling is then put in one of the tiny glass tubes shown in the foreground. The sample tube is placed in the photometer. The micrometer, left foreground, is used to measure the thickness of macaroni products, again for consistent uniformity. The double beam scale, left background, is an instrument for bulk weighing of ingredients. (Journal Staff by John A. Murray.)

conscious, homemakers who don't know about its availability should be interested in the new high protein elbow macaroni which is a wheat, soya blend. It has 50% more protein than other macaroni, is lower in starch and has no salt added," she explains. High protein egg noodles are also on the market.

Although Rita is the only Tharinger at the plant every day, her sister, Mrs. J. Stewart Murphy, is a member of the board of directors and her brother-in-law, Mr. Murphy, is secretary-treasurer. She lives with her mother and frequently entertains guests, often serving macaroni specialties.

## WHAT COOKING TESTS HAVE PROVED

By Frank E. Johnson, G. G. Hoskins Company  
Presented at the 7th Plant Operations Forum

**T**HE quality of your raw materials is the basic factor in the quality of your finished product.

It is unwise to stint on the quality of your raw material. Just the slightest difference in the quality of your product and that of your competitor can determine who gets the market.

Let's not kid ourselves. We can't make a silk purse out of a sow's ear any more than we can make a topnotch macaroni or noodle product out of an inferior blend.

Our tests confirmed the long-held belief that the best macaroni product was made from 100% semolina. During the past couple of years the combined efforts of farmer, miller, you manufacturers and allied workers have been exerted in vain to find an equal to 100% semolina.

The blend of 50% semolina/50% farina was a second best; a third best—

25%/75% blend of semolina and farina. You all know that a multitude of other ingredients found their way into our domestic macaroni products. Our general conclusion was that, with some exceptions, they were of poorer quality than the 25%/75% blend of semolina and farina.

We found that some straight farina products were better than some blends labeled "25% semolina/75% farina."

In many tests we labored under the disadvantage of incomplete information regarding the exact types and percentages of blended material. Sufficient information accompanying samples sent to us may have enabled us to tell you more accurately just why a farina made a better spaghetti than the 25%/75% blend, for example.

As might be expected, durum granular and hard wheat granular products (Continued on page 42)

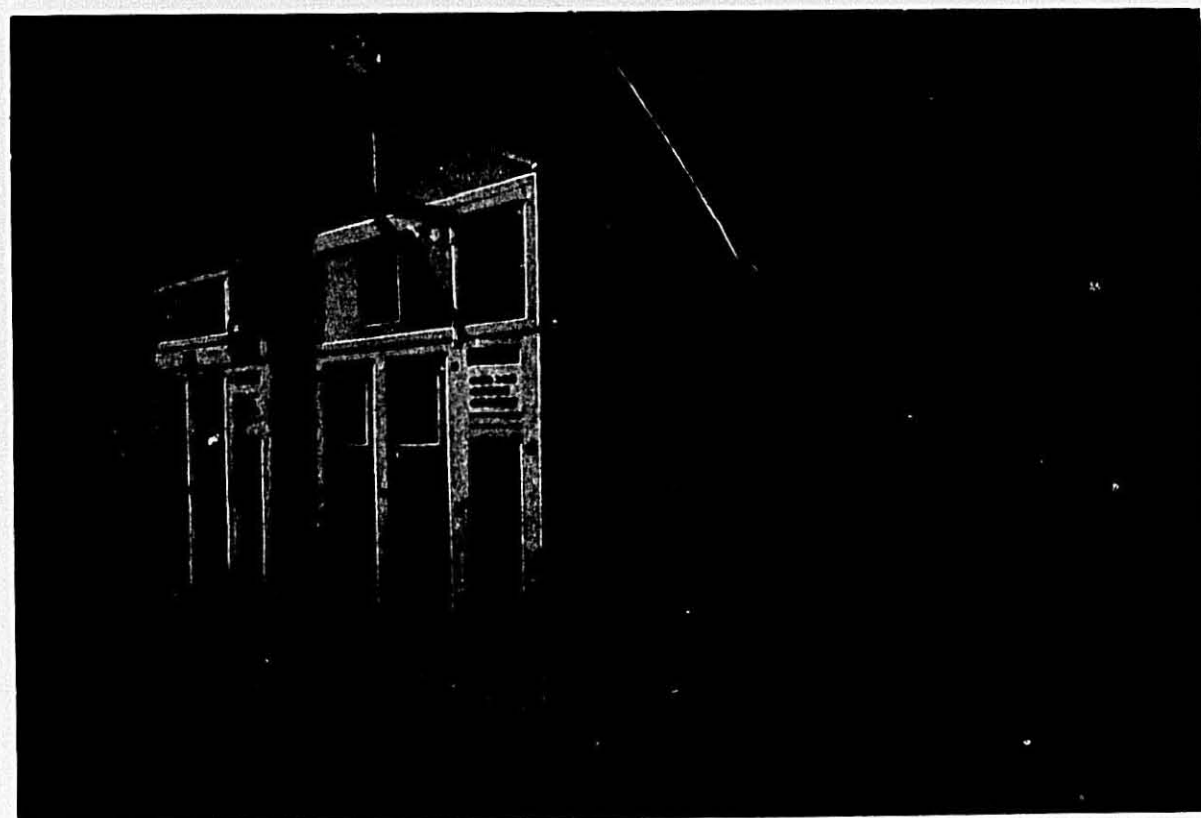


FRANK E. JOHNSON



## Check Proof Dryer Instrument Controlled Hygienic

Capacity from 600 to 2,000 pounds of cut macaroni or noodles.



THREE FINISH SECTIONS OF A FOUR-SECTION AUTOMATIC DRYER TO DRY ALL TYPES OF CUT MACARONI.

Conrad Ambrette, President, formerly President of Consolidated Macaroni Machine Corp.

# Ambrette

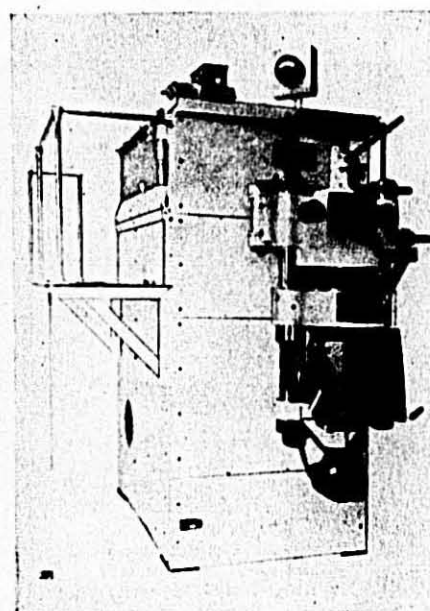
## MACHINERY CORP.

156 SIXTH STREET, BROOKLYN 15, N.Y., U.S.A.

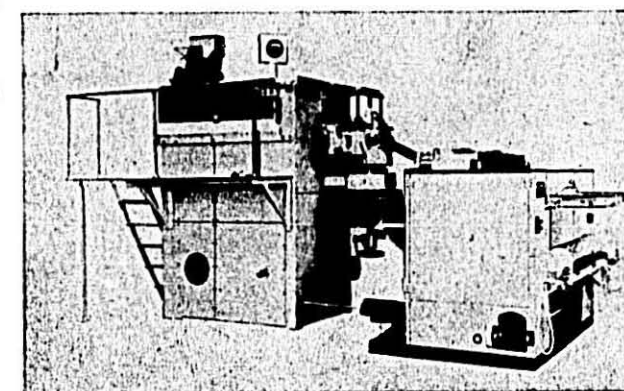
# PRESSES

WITH  
THE  
PROPER VACUUM\*

\*PATENT PENDING



Our HIGH VACUUM SYSTEM is now operating on all POPULAR MAKE PRESSES in the United States . . . . CUSTOMER ACCEPTANCE of our vacuum system—not only on our presses but on presses of other makes—has been most gratifying to us . . . . CUSTOMERS' RECOGNITION that high vacuum gives a more complete deaeration of dough before extrusion—creating a superior quality product, better conditioned for drying—has put us in the LEADERSHIP in vacuumizing presses in the United States.



CREATIVE  
ENGINEERING  
for the  
MACARONI  
NOODLE  
INDUSTRY

Automatic Press with Long Goods Spreader • Automatic Short Cut Press • Automatic Combination Press for Long and Short Goods • Automatic Sheet Former • "Quick Change" Noodle Cutter • Bologna Machine • Hydraulic Dry Long Goods Cutter • Pressure Die Cleaner • Automatic Long Goods Preliminary Dryer • Automatic Self-Controlled Long Goods Finish Drying Rooms • Automatic Short Cut Preliminary Dryers • Automatic Complete Short Cut Finish Dryers • Automatic Complete Noodle Finish Dryers • Automatic Complete Bologna Finish Dryers



## CONTINUOUS PRESS MAINTENANCE

By Paul Ambrette, Ambrette Machinery Corporation



PAUL AMBRETTE

**T**HE first requirement in the satisfactory maintenance of any apparatus is competent inspection.

General conditions should be determined by a thorough initial inspection of all new equipment, after which systematic inspection and maintenance schedules should be established.

One schedule should include a periodic routine inspection of the press. The best time to inspect any equipment is while it is being cleaned. Macaroni continuous presses and macaroni and noodle equipment in general should be cleaned thoroughly every week and at this time a routine inspection should be made. Keeping your equipment clean cannot be overemphasized in a macaroni and noodle plant. Cleanliness lowers infestation and will help to get the best and longest service in mechanical performance.

A prepared form covering weekly inspections should be made incorporating into it inspection dates and information concerning the condition of the equipment. These forms are to be turned over to competent maintenance personnel and seen to it that they are used weekly. This weekly inspection practice will, in the long run, improve operating performance and eliminate costly breakdowns caused by negligence. Therefore, weekly inspections are of great importance and are in reality preventive maintenance.

During these weekly inspections of our continuous press, we would look for and do the following:

1. Make sure that the press is properly cleaned.
2. After the press is cleaned, start it up empty and listen for any unusual noises. Any unusual noises

would indicate that something is wrong someplace.

3. Check oil level in gearboxes, thrust housing and motors.
4. Check semolina feed belt for alignment and condition.
5. Check short cut cutting device knives and spreader knives.
6. Check condition of trimmer knife on spreader and alignment of canvas conveyor for trimmings.
7. Observe all mechanical functions of the continuous press.
8. Instruct operating personnel to report immediately anything unusual or improper operation of the press to maintenance personnel.

A second prepared form for direct maintenance is also necessary. This form is to incorporate dates and information concerning renewable items. This schedule is governed by lubrication which is the major factor in press maintenance. How often lubrication is necessary is determined by the number of hours that the press works daily.

### Lubrication Schedule

- 8 hours daily—Every three months
- 16 hours daily—Every five weeks
- 24 hours daily—Every three weeks

The maintenance schedule below lists all places that maintenance is required in our type of continuous press.

1. Change oil in main drive motor (if reduction motor).
2. Change oil in main drive gearbox.
3. Change oil in thrust housing.
4. Change oil in long mixer motor and lubricate this drive assembly.
5. Oil long mixer shaft bushings.
6. Change oil in vacuum chamber motor and lubricate this drive assembly.
7. Change oil in cutting device motor and lubricate cutting device assembly.
8. Change oil in spreader stick pickup motor and lubricate this drive assembly.
9. Change oil in spreader back knife motor and lubricate this drive assembly.
10. Change oil in spreader front knife motor and lubricate this drive assembly.
11. Change oil in spreader trimming conveyor motor and lubricate this drive assembly.
12. Change oil in spreader trimmer motor and lubricate this drive assembly.
13. Grease bearings in spreader drive shafts from alemite fittings.
14. With blower, blow out dust in main electrical panel on continuous press.
15. With blower, blow out dust in main electrical panel on spreader.

16. Tighten drive chains on continuous press and spreader by using half links or tightening idlers.
17. Inspect short cut knives, spreader knives and trimmer knives. Sharpen if necessary.

### Vacuum Pump

1. Change oil every 72 hours.
  2. Strain used oil through an efficient strainer into a barrel to be used over again.
  3. Barrel should be equipped with low and high spigots on bottom.
  4. Low spigot is located approximately 3 inches from the bottom of the barrel.
  5. The high spigot for drawing out oil is located approximately 6 inches from the bottom of the barrel.
  6. Barrel should be placed on elevated Platform 2 feet from the floor.
- A good grade of oil should be used as a lubricant. For motors, thrust housing and gearboxes, SAE 30 oil is satisfactory.

Poor maintenance is expensive. It is the cause of costly breakdowns which are expensive in themselves, loss of production and idle workers getting paid for doing nothing.

The usual results of poor maintenance and lack of maintenance are:

1. Deterioration of parts caused by dust and dirt not eliminated by proper cleaning.
2. The use of a cheap, poor grade of lubricants resulting in deterioration of lubricated parts.
3. Failure to replace parts that are showing signs of wear leading to less efficient press operation and to eventual breakdowns.
4. Burned out motors, bearings and gears because someone failed to lubricate at the proper time.

Good maintenance can only then be accomplished through the determination of management. It is not enough for management to make prepared forms for inspection and direct maintenance without seeing to it that these forms are properly used and that the procedure is carried out. The only way for management to make sure that they are properly used is to have maintenance personnel check the forms out and comment on these forms as to the general condition of the equipment.

The obvious conclusion is that a sound program of preventive maintenance through inspection and of the essential direct maintenance with both on a scheduled and recorded basis, will keep the presses operating at peak efficiency and will keep maintenance costs to a minimum.

**need a sales lift?**

**GET Milprint PACKAGES**

When sales take an unwelcome dip, grab hold of the Milprint line — and give your volume a lift!

With fresh, lively, customer-appealing designs created by Milprint artists . . . with brilliant precision printing that tells your sales story quickly . . . with effective packaging that glamorizes as it sells . . . remember Milprint for the widest variety of packaging materials and printing processes available anywhere.

To raise sales fast, call your Milprint man — first!

Printed Cellophane, Pliofilm, Polyethylene, Saran, Acetate, Glassine, Foils, Folding Cartons, Bags, Lithographed Displays, Printed Promotional Material.

**Milprint** INC.  
PACKAGING MATERIALS  
LITHOGRAPHY

GENERAL OFFICES, MILWAUKEE, WISCONSIN  
SALES OFFICES IN PRINCIPAL CITIES

\*Reg. U. S. Pat. Off.



## The Paraphernalia Behind The Package

From the Rossoffi Self Service Merchandiser



CHARLES C. ROSSOFFI

EVERY year the American Management Association presents its annual National Packaging Exposition—or, as it's more familiarly referred to, The Packaging Show. You have only to walk through the teeming aisles of this spectacular exhibition to realize two things: (1) Packaging has become a major American industry; (2) There is far more to Packaging than can be seen in a casual glance at a package.

The size and importance of the Packaging Industry is indicated by the remarkably colorful and impressive displays at the Exposition, and by the extent and variety of the products and services which are directly and indirectly related to the Packaging field. There are, for example:

**The Packaging Materials:** paper, fabric, glass, metal, wood, foil, plastic, and their derivatives such as cellophane, acetate, paperboard, plastic sheeting, and others.

**The Containers:** bags, boxes, cartons, cans, jars, bottles, vials, tubes, drums, envelopes, wraps, and others.

**The Machines:** bag making machines, packaging machines, wrapping machines, filling machines, heat-sealing equipment, capping machines, materials handling equipment, weighing machines, printing equipment, and others.

**The Related Items:** closures, labels, adhesives, inks, tapes, displays, partitions, seals, waxes, and others.

The Packaging Show is indeed a representative cross-section of a vast industry, bringing together at one time and in one place all of the facilities and capabilities of the powerful sales and merchandising forces called Packaging. Undoubtedly, a quick jaunt through any supermarket would also convince any-

one that Packaging is big business and an important one, but only at the Exposition can you gain an idea of what lies behind the package, and what it takes to turn out the familiar containers that everybody just takes for granted today.

First of all a package is a container. It's the means of transmission by which the manufacturer gets his product to the retailer, the retailer gets it to the consumer, and the consumer gets it home. However, if this were its only purpose then the container would need only to be of sturdy construction and of plain durable material for protective measures. It would require no other adornment or decorative attention.

But it does. Because the package is more than just a container. It is also a means of identification. It tells the retailer and the consumer what's inside. Even in the long, long ago, when most products were shipped and displayed for sale in bulk, some sort of identification was necessary to distinguish the sugar from the salt, the flour from the cornstarch. Often the storekeeper merely tacked a crude hand-painted sign on a stick and stuck it into the loose product on display. The need for identification became even more mandatory with the introduction of individual unit, closed containers such as cans and bags, which were non-transparent.

Where is the integrity of the manufacturer to induce confidence in the product? Of what value is all his national advertising if his brand name is not on the package where it can be seen by the consumer who saw his magazine, newspaper and outdoor ads, and his expensive TV program? So further identification is necessary: the brand name of the manufacturer.

So we have a package. Or do we? No, we still have only an identified container. A package, in the full sense, must be something more. It must also be an "instruction booklet," giving the "How-To" directions for preparation and use of the product. And it has to provide reasonable insurance that the results will be as promised—in other words, with a fool-proof recipe or a precise step-by-step method of operation.

Most important of all, in this age of self-service merchandising, the package must SELL. To accomplish this it must be, and is, an effective advertising medium. It must tell a good product story. It must give the consumer a reason for buying. It must get attention, arouse interest, stimulate desire, and establish need. And it must do all this in the wink of an eyelash, because it has already been accurately demonstrated

that the average shopper spends less than 90 seconds on a single purchase.

Is Packaging necessary? Only to the extent that sales are necessary. The relationship is irrevocably linked. You can't have one without the other. Now only one more step remains and that is the correlation of all the elements of good package design: the right materials—the right size—the right shape—the right arrangement of the informational aspects cited in the preceding paragraphs. Consideration must be given to the method of packing, shipping, warehousing, displaying and end use. And always one all-important factor must be kept constantly in mind: *how will the consumer react to the finished package?*

But all this wealth of bright shiny equipment and materials and talent—this need for researchers, engineers, economists and psychologists! Packaging must be expensive as all get-out? Good packaging, because it is a necessity and not a luxury, is never expensive. Good packaging, like good advertising, helps stimulate sales and contributes to mass purchasing and mass production, thereby reducing unit cost. Good packaging edges out competition, brings in customers.

Yes, Packaging has become a highly specialized and technical field, it's true—but that's as it should be for our entire economy has become highly specialized and technical. Packaging is indeed an important facet of our way of life and a contributing factor to the march of American progress.

### New Case Adopted For Bravo Macaroni

The new shipping container adopted by A. Gioia & Sons, Inc., to promote its recently-introduced "Bravo 60 Second" macaroni, retains the family identity of the macaroni packages.

Developed by Hinde & Dauch, Sandusky, O., the slotted box is printed in red and blue on white board to maintain the color scheme of the individual packages. Also helping to establish brand identification is the same type style used on consumer containers, the company said.

This is the first shipper developed for the "Bravo 60 Second" brand, on the market for the past few months. It is produced in Hinde and Dauch's Buffalo, N. Y., plant and will hold 24 macaroni packages.

The new shipping container already is in use.

Dott. Ingg. M. G.

# Braibanti e C.

SOC. A. R. L.

Cables Braibanti—Milano  
Bentley's Code Used.

MILANO—Via Borgogna 1, (Italy)

## CONTINUOUS AUTOMATIC DRYING UNITS FOR LONG GOODS & SHORT CUTS



### Drying Installations At Ex-Combattenti Factory

CREMONA, ITALY

At Left: Automatic Drying Tunnel for Long Goods: 1,000 Lbs. per Hours.

At Right: Automatic Drying Unit for Short Cuts: 1,000 Lbs. per Hour.

Send your inquiries to:

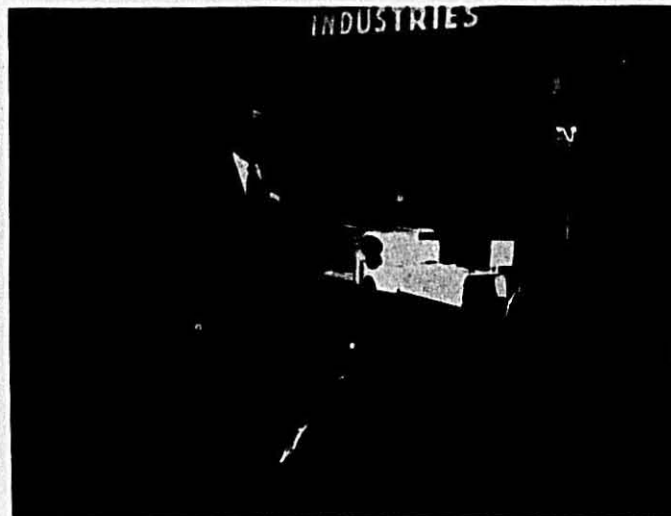
Eastern Zone: Lehara Corporation, 16 East 42nd St., New York 17, N. Y.

Western Zone: Permasco Division of Winter, Wolff Co., Inc.,

120 1/2 S. Maple Avenue, Los Angeles 15, Calif.



## AT THE PACKAGING SHOW



RILEY LIVINGSTON of Doughboy Industries

THE American Management Association attracted thousands of interested spectators to the 24th National Packaging Exposition and Conference.

Held in the International Amphitheatre in Chicago hundreds of displays exhibited packaging materials, containers, machinery and all of the necessary paraphernalia that goes with them.

Many suppliers to the macaroni-noodle industry were on hand to show their wares. Among them was Doughboy Industries. Doughboy is a diversified business manufacturing heat-sealing equipment, making a full line of plastic toys and swimming pools, running feed mills and a mill producing durum flour for noodles. Riley Livingston was on hand to demonstrate the packaging equipment.

The Woodman Company, Associate members of the National Macaroni Manufacturers Association, had a display of volumetric weighing and filling machines of primary interest to potato chip producers and noodle manufacturers. Your reporter took a picture of Woodman's representatives, Bill Lane, John Kelley, Don Meeder and Hugh Wood but double exposed it with a shot of Ennis Whitley of the Dobeckmun Company.

Both Don Meeder of Woodman and Ennis Whitley of Dobeckmun will be on hand to greet their friends at the 51st annual meeting of the National Macaroni Manufacturers Association at Coronado, California, June 21-22-23.

The American Viscose Corporation had an interesting display of packaging from foreign countries. It included attractive transparent packages for noo-

dles and macaroni products from such countries as Germany, Belgium, Switzerland, France and Italy. Striking use of bright colors is apparent in the European packaging, and predominate positioning of brand names identify the products.

DuPont stressed marketing opportunities for manufacturers and displayed a wide variety of products being packaged with their new polyester film "mylar".

The Corley-Miller Company and Simplex Machinery people exhibited a new bag-forming machine that glues the back seam as it forms cellophane bags. Their high production bag forming equipment attracted much interested attention.

Ferguson's Packomatic case-sealers had an unusual exhibit with a trained rooster who had solved his problem of making a hit. He had been trained to pull a piece of rubber that looked like a worm. The rubber would release a ball that had to go to the outfield for a home-run. A good hit opened a catch that produced a few kernels of corn for the rooster and gave him the incentive to try again. After using this sure-fire way of getting attention, Packomatic promised to help prospects solve their packaging problems and make a hit.

Of interest to macaroni packageers in the Clybourn Machine Corporation exhibit was their equipment for automatic taping and their carton forming and filling machine. The latter machine has been successfully used for long or short cut packing and has real advantages to the operation where there are frequent package changes.

Rossotti Lithograph Corporation stressed packaging for self service in their display showing shoppers reacting to good packaging. "Attention, interest, desire, and action" is the sales job to be performed by an effective package. Both Charles and Alfred Rossotti were in town for the show along with representatives of the firm.

Milprint put their entry in the money by displaying packaging on metallic coins displayed in their booth.

Exact Weight Scales advertised their national service by means of a big map of the United States. Various types of scales for numerous weighing operations were on display.

### Milprint in the Money

The Milprint, Inc. booth at the A.M.A. National Packaging Exposition showed Milprint packaged products in the money. This was graphically done by mounting packages on large blow-ups of coins. To highlight the metallic coins and vivid packages the background of the booth was day-glo red and yellow. Accent colors were gray, blue, and black.

A novel feature of the booth was a telephone system. Over it the convention goer could be connected with different technical packaging messages. Among the topics were such important subjects as new films, laminations, foil, lithographing and bags.

### Rossotti Announces Manufacturing Agreement

Charles C. Rossotti, Chairman of the Board of the Rossotti Lithograph Corporation, North Bergen, New Jersey, announced recently that his company had entered into a reciprocal manufacturing arrangement with the H. S. Crocker Company, Inc., San Bruno, California. The two firms are engaged in the manufacture of multi-color packaging.

Under the terms of the agreement both firms will continue to operate independently exchanging the complete label and folding box manufacturing facilities of their Eastern and Western companies. It is felt the move will make both companies more efficient offering greater opportunity for diversification.

The Rossotti California Lithograph Corporation, 5700 Third Street, San Francisco, California, plans an expansion of its sales force to take advantage of the larger more diversified facilities. Plans will be announced shortly.

The arrangements included the sale of some of Rossotti California's folding box equipment to the H. S. Crocker Company.

## AT THE PACKAGING SHOW



ROSSOTTI REPRESENTATIVE Doug Vaughan demonstrates "Packaging for Self Service", with attention, interest, desire, action.



MILPRINT'S Roy Lundberg and Mrs. Harry Jones preside beside "packages that put your product in the money."



KALAMAZOO VEGETABLE PARCHMENT has representative C. A. Bell show their packaging materials.



CRYSTAL TUBE CORPORATION, film converters displayed products packed in visible packages. Bill Holly greets a visitor.



CLYBOURN MACHINE CORPORATION equipment is explained to a prospect by Fred K. Thomsen (on left).

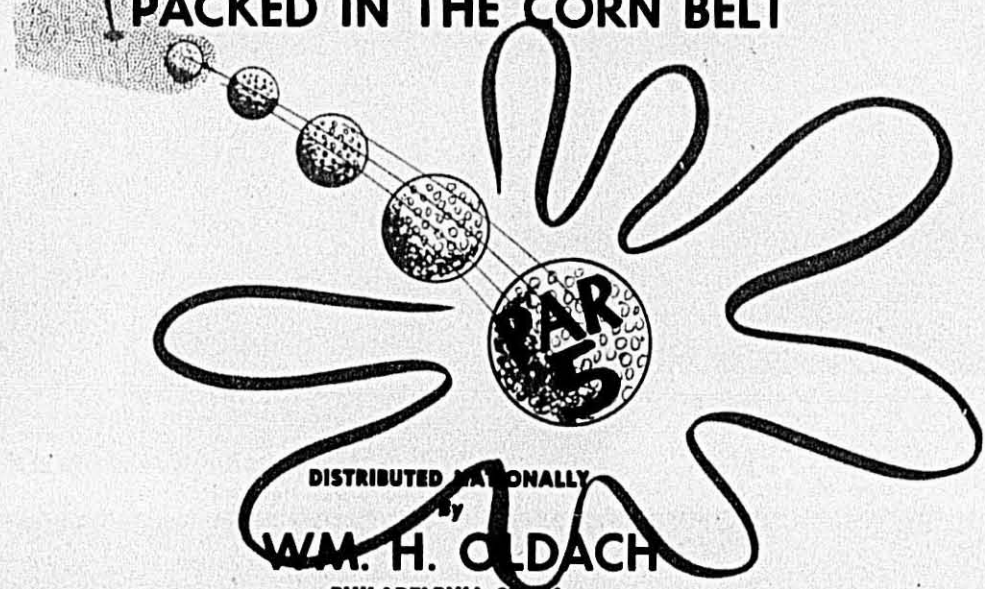


FERGUSON'S PACKOMATIC team included a trained rooster, William Thornley, Roger Schunk, Tom Rink, and Joe Cleaver.



# DEEP COLOR EGG YOLK

PACKED IN THE CORN BELT



DISTRIBUTED NATIONALLY

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## FRANK LAZZARO DRYING MACHINES

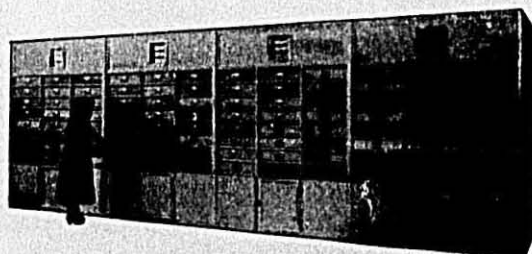
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GRATED CHEESE  
LONG PASTE - SHORT PASTE  
and  
CAVATELLI



A DRYER FOR EVERYONE REGARDLESS OF SIZE

A Complete Line of  
REBUILT FULLY GUARANTEED  
VERTICAL HYDRAULIC PRESSES  
KNEADERS - MIXERS  
DOUGH BREAKS  
Etc.



## THE EGG MARKET

### Liquid, Frozen and Dried Egg Production

The USDA Agricultural Marketing Service in its report for February 1955 shows liquid egg production totaled 39,154,000 pounds, compared with 47,786,000 pounds in February last year and the 1919-53 average of 48,646,000 pounds, the Crop Reporting Board announced. The quantity used for drying was larger than a year earlier. The quantities used for immediate consumption and freezing were smaller.

Dried egg (egg solids) production totaled 1,902,000 pounds, compared with 1,894,000 pounds in February last year and the average of 3,695,000 pounds. The quantity produced from frozen egg was smaller than last year. February production consisted of 273,000 pounds of dried whole egg, 904,000 pounds of dried albumen, and 725,000 pounds of dried yolk. Production during February last year consisted of 79,000 pounds of dried whole egg, 810,000 pounds of dried albumen and 1,005,000 pounds of dried yolk.

Frozen egg production during February totaled 27,192,000 pounds, compared with 36,174,000 pounds in February last year and the 1919-53 average of 33,588,000 pounds. Frozen egg stocks decreased 4,000,000 pounds during February, compared with an increase of 3,000,000 pounds in February last year and the average increase of 8,000,000 pounds.

### The Report for March

The USDA Agricultural Marketing Service in its report for March indicates that liquid egg production was down sharply from a year ago. The quantity produced totaled 67,855,000 pounds, compared with 92,959,000 pounds in March last year and the 1919-53 average of 87,072,000 pounds.

Dried egg (egg solids) production totaled 2,357,000 pounds, compared with 3,140,000 pounds in March last year

and the average of 6,244,000 pounds. March production consisted of 518,000 pounds of dried whole egg, 975,000 pounds of dried albumen and 834,000 pounds of dried yolk. Production during March last year consisted of 293,000 pounds of whole egg, 1,217,000 pounds of dried albumen and 1,681,000 pounds of dried yolk.

Frozen egg production during March totaled 55,419,000 pounds, compared with 75,709,000 pounds in March last year and the 1919-53 average of 64,137,000 pounds. Frozen egg stock increased 19 million pounds, compared with 50 million pounds in March last year and the average increase of 31 million pounds.

### Noodles Hold Popularity

A tabulation of noodles as a percentage of total macaroni production has just been made by the Glenn G. Hoskins Company of Libertyville, Illinois. They report that the earlier figures are based on the U. S. Census of Manufacturers and that later figures have been projected from the production index data they gather. The proportion of eggs is figured from use of eggs in production reported by macaroni and noodle manufacturers.

Year	Percentage of Noodles to other macaroni products
1927.....	6.7%
1929.....	9.0%
1931.....	10.1%
1933.....	10.4%
1935.....	13.4%
1937.....	15.4%
1939.....	16.5%
1943.....	17.5%
1944.....	13.0%
1945.....	16.3%
1946.....	16.8%
1948.....	20.6%
1950.....	14.6%
1952.....	20.0%
1953.....	18.3%
1954.....	18.25%

### COLD STORAGE REPORT

The cold storage report, issued April 15, showing end-of-month stocks of eggs.

(add 000)	March 1950-54 avg.	March 1954	Feb. 1955	March 1955
Shell Eggs .....	804 cs.	442 cs.	268 cs.	487 cs.
Frozen Eggs, Total.....	84,056 lbs.	91,940 lbs.	62,517 lbs.	81,616 lbs.
Whites .....	25,560 "	30,013 "	19,592 "	24,305 "
Yolks .....	18,915 "	18,229 "	17,100 "	21,764 "
Whole or mixed.....	34,980 "	37,851 "	22,592 "	31,519 "
Unclassified .....	4,601 "	5,817 "	3,233 "	4,058 "
Dried Eggs .....	34,782 "	1,561 "	1,463 "	1,871 "
Total Eggs (1) .....	6,444 cs.	2,983 cs.	2,035 cs.	2,791 cs.

(1) Conversion—38.5 lbs./cs. for frozen eggs and 10.2 lbs./cs. for dried eggs.



Eggs in April

During the first week in April, cash eggs slumped to the lowest level in two months on declines of 1.5¢ a dozen. Current receipts in the Chicago market on April 1 were selling at 31.5¢ a dozen. The biggest drop came early in the week as supplies mounted, but lower prices stimulated demand especially for storage eggs. The following week an eleventh hour Easter demand cleared up local supplies. Cash receipts hit their peak on April 15 to stand at 36.5¢ a dozen. Storings accounted for light hedging pressure on the Mercantile Exchange during that week. Almost 82,000 cases went into the four major markets and some egg men estimated total stocks at the end of the fourth week of April roughly at 700 cars above year earlier holdings.

Stored egg prices remained steady throughout the month. Frozen whole eggs, priced at 26¢ on April 1, moved up a penny or two to 27¢ and 28¢ by the end of the month. Frozen whites started with a range of 16-17¢ a pound moved as high as 18¢ and wound up at 17-17.5¢. 45% yolks started with a range of 48-50¢ and moved up a penny in the middle of April to 49¢ and 51¢. They stayed on that level for the last two weeks. Dry yolk solids stayed in a fairly steady range of \$1.08-1.16 a pound.

At the beginning of May, egg prices were generally lower again as heavy receipts and storings continued to burden the market. Persistent trade selling and hedging pressure on the Exchange resulted in the heaviest trading in egg futures this year. Some 1,911 cars were traded and prices hit their lowest levels in more than three weeks. Traders felt that warmer weather and the growing scarcity of storage space might curtail production or result in heavier marketing of older birds. Storage shell egg futures dipped 50 to 70 points to three-month lows on the Mercantile Exchange. In the year's heaviest trading session in eggs on May 2, futures closed lower for the seventh time in the last eight sessions. The decline was sparked by heavy trading and local selling.



## NEW DU PONT DEVELOPMENTS

A manufacturer's share of today's expanding self-service market—spurred by increasing population—often depends on such factors as package-size, visibility, attraction, and accurate reports of consumer shopping habits.

This general theme was dramatized by the Du Pont Company's Film Department at the recent National Packaging Exposition.

Display units stressed the marketing opportunities for manufacturers designing packages to meet the requirements of the 26 million American families in the small household category—three persons or less. A series of these packages on display emphasized convenience, less waste, and easy storage. Other self-service cellophane packages illustrated the latest developments in fractional, variety, multiple, and informative packaging.

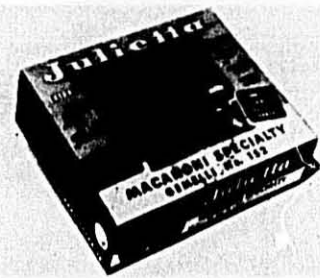
In addition, the exhibit called attention to the packaging properties of Du Pont's New "Mylar" polyester film—its great strength and durability, transparency, chemical resistance, water-vapor resistance, and the film's stability under a wide range of temperatures (—80° to 300°F). These properties were illustrated by on-the-market packages, and a group of proposed designs created by Du Pont specialists. Products packaged in "Mylar" included textiles, hardware items, and food.

Manufacturers attending the exhibit also watched an animated display—and



TWO SMALL HOUSEHOLD PACKAGES: (left) A two-cup unit of rice in a printed, double-wall cellophane bag. Copy on bag points out that "No measuring is necessary". Dotted line also indicates a one-cup measure. Recipe suggestions are printed on back of the bag.

(right) a variety pack of macaroni, egg noodles and spaghetti, with each item separately packaged in printed cellophane bags. All three units are, in turn, packaged in a cellophane bag with a header label. Recipe suggestions are printed on cardboard backer.



NOW ON THE MARKET: Macaroni is the first food product to be packaged in a window box using "Mylar" polyester film. This film will not dry out or become embrittled.

saw markets for their products expand before their eyes. This device, which reports the growth of the U. S. population at any given moment, is an adaptation of the mechanism in the U. S. Department of Commerce. According to the device, there is a birth every nine seconds, an emigrant leaves every 17 minutes, an immigrant arrives every two minutes, and a death occurs every 21 seconds.

Translated into marketing terms, this means a gain of 7,200 new customers a day for a host of packaged products. Monthly, this increase in population means the creation of a new market the size of Richmond, Va., (pop 230,310); yearly, the size of Maryland (pop. 2,313,001); and every four years, the size of California (pop. 10,586,223). All figures are based on the 1950 census.

Other display units demonstrated how packaging research helps manufacturers sell more products to more people. Shopper buying habits, the exhibit pointed out, are influenced by the size and type of package (small household, fractional, convenience, etc.), by visibility, which shows the product, and by self-service, which makes shopping easier.

These factors, in turn, greatly influence the in-store decision rate for packaged products, according to Du Pont shopping studies. A current study, "Latest Facts About Today's Shopper in Super Markets," discloses that seven out of 10 (70.8 per cent) buying decisions are made after a shopper enters a store. Since she doesn't use a shopping list, and devotes little more than a minute of her time in buying each item, the package has to "sell itself."

Other studies in the "Latest Facts Series," which emphasizes the role played by transparent cellophane or glass containers in creating self-selling packages, cover specific supermarket items: biscuits, candy, crackers, potato chips, pretzels, macaroni, and glass packaged products.

## Polyethylene Popularity Grows in Varied Usage

Polyethylene is on its way toward becoming the first billion pound a year plastic produced by the chemical industry, a plastics specialist said at the Packaging Conference.

Herbert Childs, Product Manager for Olin Polyethylene, said that polyethylene was already being used extensively for bottles, molding, film, waxes, piping, coatings and wire insulations. He predicted growing use of the plastic for packaging of metal parts, foods, chemicals, powders, etc.

Mr. Childs said that polyethylene gives good product protection because it is tough, flexible, moisture proof, tasteless, odorless, non-toxic and is a chemically inert material.

Polyethylene can be laminated with cellophane, resulting in a material that is grease-proof, odor-proof and gas-proof.

## Packaging Machinery Gets Lots of Research

Industry statistics show that about seven cents of every dollar of sales of packaging machinery last year went back into research and development for new and better packaging methods. From available statistics, this figure is well above the average plowed back by the machinery industry in general, and only the Government supported aircraft industry is thought to exceed the percentage of package machinery dollars devoted to research and development. The results are evident in that major corporations, who felt compelled previously to make some of their own packaging machinery, are rewarding members of PMMI by placing substantial orders for new and improved equipment.

This report was released at the semi-annual business meeting of the Packaging Machinery Manufacturers Institute in Chicago recently. When making its report, PMMI officers indicated that this healthy attitude of the members in furthering the growing trend toward packaging assured producers a continuing source of increasingly efficient equipment.

The Institute also pointed to its statistical reports of orders and shipments of packaging machinery in 1951. Shipments exceeded 1953 by nearly 12%, continuing the steady growth of the industry. The backlog of unfilled orders at last December 31st was the highest of any period since PMMI began collecting industry statistics in 1950.

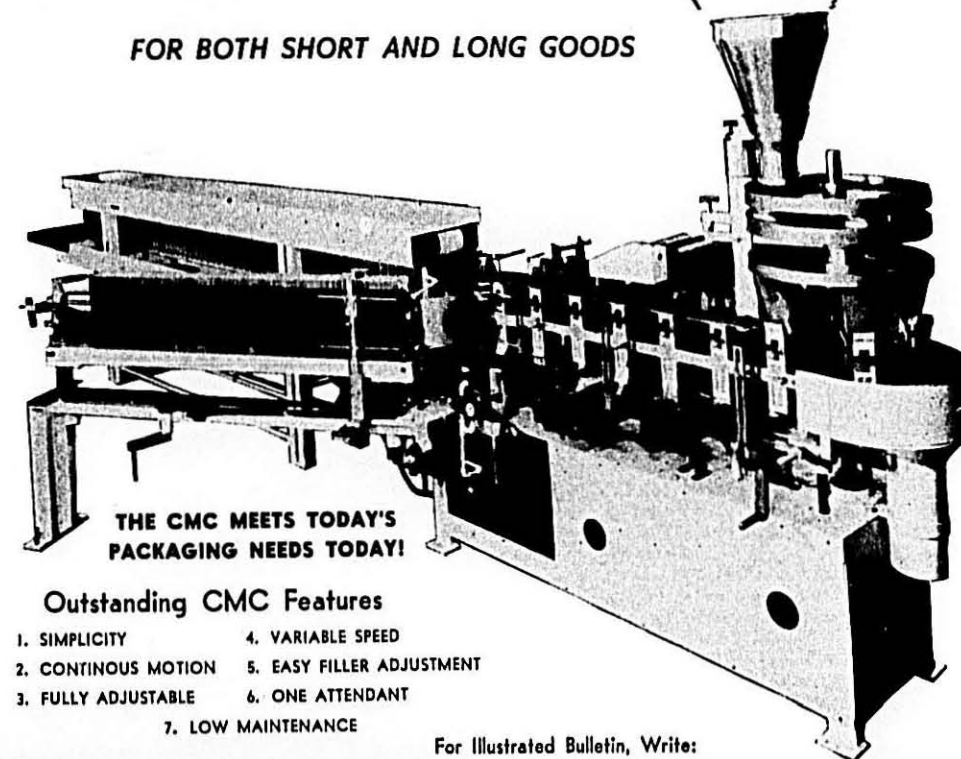
Packaging Machinery Manufacturers Institute, with headquarters in New York, held its Chicago meeting in connection with the National Packaging Exposition. The meeting was under the general chairmanship of Tom Miller, Institute president, and vice-president of Package Machinery Company, East Longmeadow, Massachusetts.

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## SHORTCOMINGS OF SHIPPING CASES

The inadequacy of shipping cases to meet modern methods of food distribution came in for sharp criticism by James Cooke, vice-president of Penn Fruit Company, before the National Packaging Conference of the American Management Association Convention in Chicago.

Some of the shortcomings of which he complained were: (1) the slow turnover of the merchandise in comparison with the quantity packed per case; (2) inability of the average case to bear the strain of modern warehousing; (3) cases constructed in such fashion that opening of case and marking of goods becomes a slow and costly process; (4) inadequately and haphazardly marking cases making it hard to identify the contents.

Mr. Cooke said at least 75% of the items carried by his firm had a turnover of less than one case per week per store and 25% move at less than 1/3 case per week. If movement figures such as these present a problem to large volume retailers, consider the plight of the 272,000 food retailers who do less than \$100,000.00 a year per store.

The practice of packing a certain number of units per case without regard to turnover means that even the large volume retailer is burdened with millions of dollars of unnecessary inventory, crowded back rooms, more crowded shelves, increased damage and poor rotation.

Space is always at a premium and supermarkets hate breaking rooms. They are a terrific expense. In addition to being costly, split cases rob fast moving merchandise of shelf space, and they present a problem of store control, because clerks responsible for stacking will go to extremes to avoid returning a nearly empty case to the stock room. They will even place the last few items on the floor to be kicked around and become damaged.

If storage and handling costs were allocated simply on a formula of movement and space rate alone, these items would be priced to the consumer at far higher than they are now.

Many shelf packages are damaged and time wasted because they have poor stacking characteristics. Items packed in paper and film bags, and packs with handles, spouts and fancy tops should be redesigned to give better stacking characteristics and thus better shelf representation. Mr. Cooke urged manufacturers to print good selling messages on all six sides of their packages, and to design packages to proportions that will assure equitable shelf frontage representation and easy stacking characteristics. Containers should be designed

for easy price marking. A clear space of ample size for legible marking should be provided. And packages should be packed right side up in the shipping cases so marking can be done with the least handling and least expense. He cited an experiment of opening 400 cases to find only 59% of the contents packed right side up.

Illegible marking causes delay and expense at the checkout counter as clerks try to decipher price markings.

In summary Mr. Cooke recommended that manufacturers determine the proper size of the packing case from the velocity of movement of the merchandise; establish uniform marking and identification of shipping containers; provide sufficient clear space for price marking of unit packages; use tear strip wherever practical or indicate by printed line or otherwise where shipping cases should be cut to avoid damage to contents; determine case sizes and shapes with space limitations of warehouse and retail outlet in mind; be sure cases are strong enough to safely carry their contents and to bear the strain of storeroom stacking without depending on contents to bear the strain.

### Slack Fill Tolerances

James J. Winston, NMMA Director of Research, reminds macaroni manufacturers that the matter of fill of container for macaroni products is one which should be carefully checked to avoid possible conflict with the present tolerances of the Food and Drug Administration and State Departments of Agriculture.

In 1946, the Food and Drug Administration, after receiving a report and recommendations of the Slack-Fill Committee of the National Macaroni Manufacturers Association, agreed to the following regulations governing the fill of containers for macaroni products.

Long Macaroni in cartons should show a fill of at least 75% or better; Long Spaghetti and Vermicella should show a fill of at least 70% or better; Elbow Macaroni and similar products, such as short goods, should show a fill of at least 80% or better. Also, the Food and Drug Administration stipulated at that time, that the fill of container should be materially in excess of the minimum figures depending upon factory controls employing new engineering principles in order to attain the maximum fill.

All manufacturers should make an effort to survey their cartons for fill of container to make certain that their products are in compliance with the above requirements.

### Check Mark Seal for Aluminum Foil Packages

A striking new "check-mark" seal for "Aluminum Foil Protected" packages has been officially adopted by the Aluminum Foil Division of The Aluminum Association.

Created by Raymond Loewy Associates the official seal was introduced for the first time in a preview presentation at the "Surprise Package" show given by the Foil Division at Chicago, April 18, in conjunction with the National Packaging Show.



ARLENE KIETA, Miss Foil Packaging of 1955, displays the seal adopted by the Foil Division of The Aluminum Association for use as a symbol on packages employing aluminum foil to mark the best in protective packaging. The seal was designed by Raymond Loewy Associates.

The seal, which is an instantly recognizable trade mark design, will be made available by the Foil Division to qualified manufacturers and converters for use on all approved types of aluminum foil packaging. Plans for such use are now being formulated by members of the division and will be announced on completion.

The "Aluminum Foil Protected" check-mark is designed as a symbol for use on packages employing aluminum foil; to assure the consumer that the product's quality and freshness has been sealed in and protected by foil, and to demonstrate that the manufacturer has used the best protective package to deliver highest quality to the user.

### Make the Easy Sale

It's cheaper and easier to sell your best customers first. . . . A Bureau of Labor Statistics study, assembled by the New York Times, shows that your customers can be divided into 2 groups: Those who "have more" and those who "have less."

Two-thirds of all families in the New York Metropolitan area have less than average income. One-third of all families have more than average.

It takes about 2,600 have-less families to equal the spending power of 1,000 have-more families.

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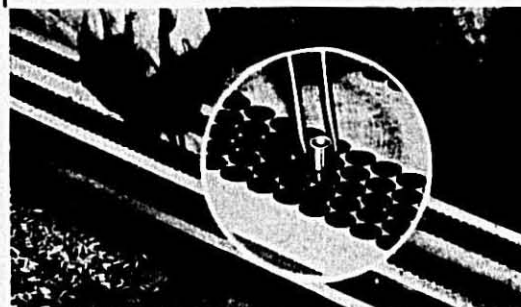
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### NARGUS Plans New Convention Features

An "Early Birds Idea Exchange" and a produce packaging center will be the two new features at the 56th annual convention of the National Association of Retail Grocers at Navy Pier, Chicago, June 12-16.

From 8:30 to 9:30 o'clock on week-day mornings, preceding the regular business session of the convention, successful store operators will gather in the meeting hall to discuss ideas that have proved particularly profitable for them. The "early birds" program will be open to everyone who cares to arise early to hear his fellow retailers present practical ideas for overcoming and outpacing the stiffer competition in food retailing.

Each morning, Monday through Thursday, four to six outstanding members of NARGUS will describe in detail an idea that has paid off in increased efficiency, customer satisfaction, cost cutting, volume building, or profit earnings.

Among those who will appear at the early sessions are W. H. Crawford, El Monte, California, in a discussion of "The Use of Shopping Bags Instead of Carry-out Boys;" Peter Reviglio, LaSalle, Illinois, "Advisory Service to Customers in a Self-Service Meat Department;" W. D. Dahl, Des Moines, Iowa; "Package Pickup Center;" G. Vander Hoening, Holland, Michigan, "Projecting Invoices for Turnover and Margin Estimates;" Clarence Shaul, Webster Groves, Missouri, "Miniature Store for Schools;" and Paul Reitz, Dubois, Pennsylvania, "Cashier Training in High School."

The 1955 NARGUS convention and food industries exhibition will bring more than 12,000 retailers and their suppliers to Chicago for a five-day business and social program that begins Sunday morning, June 12th. Local associations affiliated with NARGUS are planning caravans to Chicago for member retailers and their families. The Lincoln Food Retailers Association is organizing a caravan of special cars to be hooked up to the Burlington Zephyr for its own members as well as for Omaha retailers.

Throughout convention week business sessions will be held in the morning and exhibit hours in the afternoon. A mile of food and grocery displays will include frozen and specialty foods, perishables, and non-food items, as well as food store equipment and fixtures.

Leaders in all branches of the food industry and government will speak at the business meetings. Panel discussions and workshop phases of food store operation.

51st Annual N.M.M.A. Meeting  
Coronado, Calif., June 21-22-23



### A New Display System

A new and revolutionary Macaroni Merchandising Display System has been introduced by Skinner Manufacturing Company of Omaha, Nebraska.

John T. Jeffrey, vice-president in charge of sales, announced that installations of the new system began early this year. "Grocers who have used the plan are very enthusiastic," he said. The new Skinner Display System is made up of three pieces—a Product Shelf Divider, Product Identification Strips, and an Italian Style Spaghetti Bin.

Mr. Jeffrey reports that field surveys indicate grocers find many advantages

in the new Display System. Without increasing display space, sales are increased because the vertical display enables shoppers to see all cuts of macaroni from one position. "Macaroni is an impulse item and more multiple package sales result," Jeffrey said.

Shelf Dividers prevent mixing of the various cuts. Spaces for each cut of macaroni can be balanced in relation to the demand for the product. A fast-selling cut is given more space than slower moving items. The result is more orderly arrangement of the macaroni department and fewer "out-of-stocks." "Out-of-stocks" are also reduced because stockmen can quickly refill the shelf with the correct product.

### La Rosa Adds Ravioli to Line

V. La Rosa & Sons, Inc., Brooklyn, New York, have unveiled the latest addition to their constantly growing line of Italian home-style food products—

Italian-Style Ravioli in Sauce. Now for the first time, the American housewife can serve prepared Ravioli, and be confident that it's just like the Ravioli served in fine Italian homes. And there's no long preparation—just heat and eat.

What makes La Rosa Ravioli so different from other prepared Ravioli, is La Rosa uses their famous macaroni-making technique to prepare these specially firm outside Ravioli shells—they're never soggy, never sticky. And inside, the Ravioli is filled with choice cuts of pure beef blended with natural spices, to give it real Italian taste.

"The really good news about these Ravioli," says Josephine P. La Rosa, home economist for the company, "is that they can be served (with a salad) as a main course for dinner—for a hot lunch—or a party treat. And since the Ravioli come prepared in a special sauce, the cook of the house needs only minutes to serve family or guests."

This new Italian Home-Style Ravioli in Sauce comes packed in a handy 15½ oz. can under the traditional La Rosa label. Retail price is about 50¢.



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### Pointers Given Restaurants For Cooking Spaghetti

"Off the Fire," monthly bulletin of the Antonio Palazzolo Company of Cincinnati reports a summary of information gathered in a survey of restaurant chefs on how to cook spaghetti.

The Palazzolos own and manage the famous Cincinnati restaurant Caproni's. Here are the pointers:

*Restaurants specializing in spaghetti:*

#### General Rules

1. Use plenty of boiling water—fresh water for each batch.
2. Stir frequently during cooking to prevent sticking.
3. Spaghettini or vermicelli is recommended. If cooking to order, this product cooks faster.

#### Methods

1. If at all possible, cook "express" as ordered. We heard of one restaurant that has 4 or 5 pots going at a time at different stages of preparation.
2. Cook in small quantities, cooking 3 or 4 times during the luncheon or dinner hour. In this way the product will not stand too long.
3. Partially cook—the minimum time to reach a flexible condition. The time would be about 75% of normal cooking time. Store in refrigerator in air-tight container. As required for orders, place portion in colander and drop colander in hot, boiling water for 2 or 3 minutes to complete cooking and heat through.
4. Partially cook—the minimum time to reach a flexible condition. Remove the kettle from the fire, add a little cold water to stop boiling. Keeping the product in warm water prevents it from sticking together. For best results, serve immediately. Cook in small quantities so that the product will not have to stand in the water too long.

*Restaurants who keep their spaghetti in steam tables:*

#### General Rules

1. Use plenty of boiling water—fresh water for each batch.
2. Stir frequently during cooking to prevent sticking.
3. Use larger diameter spaghetti.

#### Methods

1. Try to cook in small quantities; 3 or 4 times during your serving period and keep adding freshly cooked spaghetti to steam table pan.
2. Boil spaghetti 3 or 4 minutes and then thru heat to a point where bubbling is stopped. Continue cooking without bubbling. When cooking is completed, pour in some cold water, stir well and strain. Coat a pan with sauce, drop in the strained spaghetti, add more sauce, mix gently until it is well coated. Put in steam table. If it becomes too dry, add more sauce or a little hot water.



(Continued from page 25)

were generally inferior to those made from semolina and farina, respectively. In one test we found a durum granular spaghetti better than a 25% semolina/75% farina spaghetti and a straight farina spaghetti. In this particular case, the farina made a better product than the 25%/75% blend.

In a series of tests we compared spaghetti, macaroni and noodles made from:

- (a) 25% semolina/75% farina
- (b) 25% durum patent flour/75% hard spring wheat patent flour
- (c) 100% hard spring wheat patent flour
- (d) 25% durum granular/75% hard spring wheat granular.

Rating all the samples together, we arrived at the following general conclusions:

(1) The 25% semolina /75% farina blend tied with the patent flour blend of 25% durum/ 75% hard spring wheat. The former was first in noodles and the latter was first in macaroni and spaghetti. The patent flour blend's cooking ability offset its poorer color.

(2) The 100% hard spring wheat patent flour rated third.

(3) The granular blend of 25% durum/75% hard spring wheat placed fourth.

These tests indicated that in this case a patent flour 100% or blend of patent flours, tended to give spaghetti and macaroni a grayish color. This was not apparent in the case of noodles—possibly due to the presence of egg yolk.

There was evidence that the patent flour blend withstood overcooking best of the lot.

One test showed that the above patent flour blend withstood 20-minute cooking better than a good 50% semolina/50% farina product.

In a number of tests we attempted to determine the effect of the vacuum process on cooking. There was no doubt about the improvement the vacuum

process made on the uncooked product. Evidence we had seen in our cooking tests led us to be conservative in our appraisal of the vacuum process as to cooking improvement. A vacuum product seemed to require about 10% more time for proper cooking. We had no evidence that the vacuum product held up better under prolonged cooking.

Tests were run on products made with various "additives" which aimed chiefly at improving the gluten characteristics. Some of these resulted in slightly better products. An optimum addition of gum gluten seemed to make some improvement in cooking quality, but had an adverse effect on color.

The conclusions we arrived at from our cooking testing program to date may be summarized as follows:

semolina has not been found.

semolinna has not been found.

(2) The 50%/50% and 25%/75% semolina-farina blends rated second and third, respectively, to 100% semolina.

(3) Other factors equal, durum is generally superior to hard wheat.

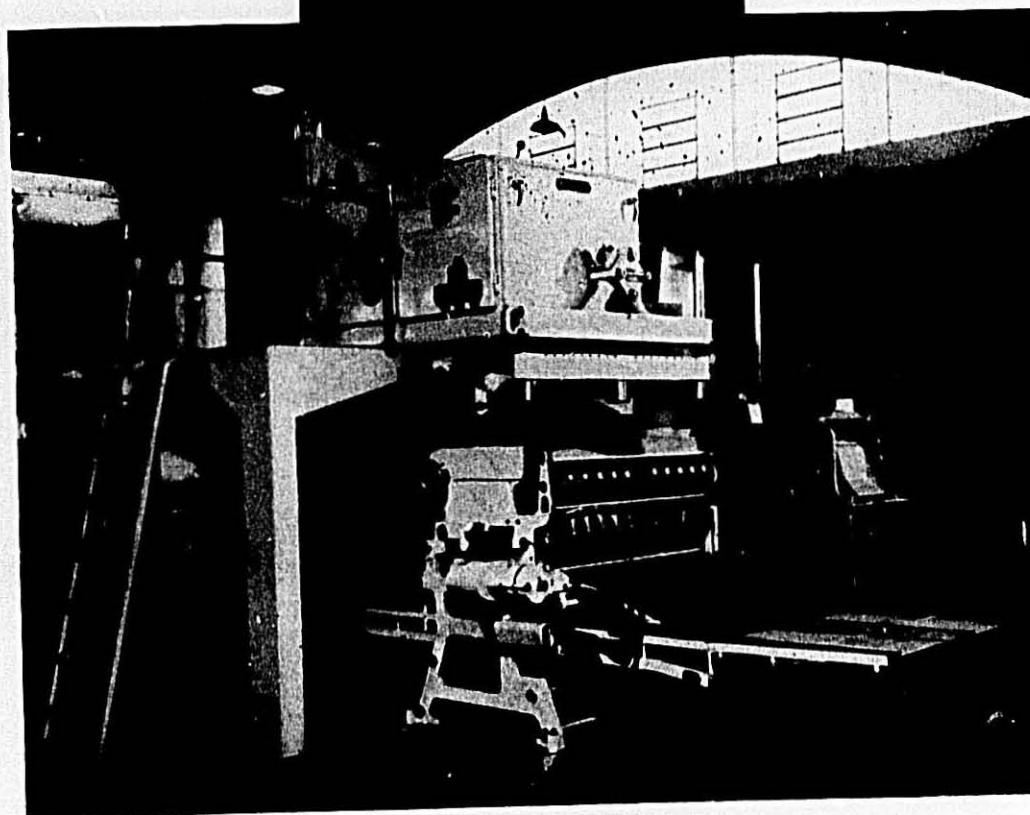
(4) Found 100% patent flour blends were better than granular blends and almost as good as semolina-farina blends of like proportion—with the exception of color.

(5) The quality of different shipments of a certain specified blend may vary so as to be at times inferior to another specific blend which would normally be considered a lower grade material. For example, some farinas were better than some semolina-farina blends. Your protection against this possibility is a systematic testing program to assure getting what you pay for.

(6) The validity of our tests was somewhat impaired by incomplete description of raw materials used in some of the samples tested.

(7) Only through continuing study, testing and experimenting on the part of farmer, miller, you manufacturers and allied forces can more and more of a better product be sold to the consuming public.

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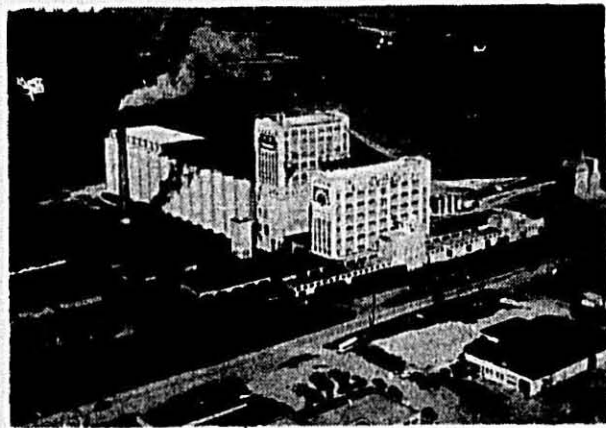
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AERIAL VIEW of North Dakota Mill

### Mill Expansion in Progress at N.D. State Mill & Elevator

Located in the heart of the durum wheat area, the North Dakota Mill & Elevator, Grand Forks, North Dakota, is one of the eight durum mills in the United States.

The North Dakota Mill and Elevator started its operation in October of 1922. During the past 33 years, it has shown a steady growth, and today it is one of the leading industries of the central northwestern area.

At the present time, the North Dakota Mill & Elevator is taking another step of modernization by remodeling its milling process. When completed, the milling process will be one of the most modern in the industry, with a milling capacity of 8000 cwt. per day of durum and spring wheat products.

Under the management of R. M. Stangler, the North Dakota Mill & Elevator has been very active in all phases of the durum milling program. This interest extends far beyond the milling process itself.

Over a period of many years, the North Dakota Mill & Elevator has been cooperating with the North Dakota Agricultural College and the Northwest Crop Improvement Association in the development of top quality seed for the durum farmer.

In addition, the management has taken a vital interest in the marketing of durum products over a wide territory.

Besides the durum and spring wheat mills, the North Dakota Mill & Elevator operates a modern feed mill with a capacity of manufacturing 250 tons of formula feeds per day, a modern up-to-date Expeller, soybean and flax processing plant; a terminal elevator, with a capacity of 3,250,000 bu.; and two local elevators with a combined capacity of 230,000 bushels.

### Mortality in Italian Milling Field

In 1954 about a hundred Italian mills with a total capacity of 11,000,000 metric quintals (24,250,000 cwt.) discontinued business.

During the crop year, the distribution of domestic and imported wheat made by the government Commissariat amounted to 12,393,412 metric quintals. The milling industry was able to supply itself almost entirely in the free market.

The labor force maintained during the crop year held the same level as the preceding year. On the whole, the ratio between effective work and productive capacity amounted to about 43%. This situation increased because of production, and created abnormal competition among the mills.

No improvement was noted in the macaroni industry. The number of factories was reduced in 1954 to about 1500 with a productive capacity of over 28,000,000 metric quintals (6,173,000,000 pounds). The industry employed about 16,000 workers.

Output of long and short goods during the 1953-54 crop year was set at 12,000,000 metric quintals, twice as much as the 1938 output. Rising consumption that caused this increase did not keep pace with the development of productive capacity observed in recent years.

The production index for macaroni, using 1938 as 100 were: 126 in 1950, 131 in 1951, 137 in 1952, 152 in 1953 and 151 for the first ten months of 1954. Retail prices were almost unvaried, with a rise of about 10 lire in some towns.

Diminished exports depressed the industry somewhat. In the first ten months of 1954, exports totalled 54,753 metric quintals as against 60,534 in 1953, and 67,580 in 1952.

### Aleurone Restores Nutrition

By Giovanni Coppa Zuccari, Rome.

The Italian milling industry has a productive capacity of 120,000,000 metric quintals per year (264,552,000 cwt.). But its yearly output is only 45,000,000 metric quintals (99,207,000 cwt.). The crisis is due to reduced consumption of bread and macaroni caused not only in the domestic market but also by a decline in exports. The same phenomena is observed in other countries.

In a study of the problem, international specialists say that the composition of flour today does not satisfy human biological wants.

One of the causes is attributed to the use of metallic cylinders in the milling industry. When grinding grain, these cylinders destroy the outer layer of grain cell structure which contains the aleurone and reduces the nutritional value of the flour (Chamber's Technical Dictionary defines aleurone in the following manner: "Reserve protein material occurring in granulars in the aleurone layer, a special layer of cells just below the surface of the grains of various cereals, and in the seeds of other plants.") A solution has been reportedly found to this important question through the use of aleurone extracts in the preparation of bread and macaroni. This use was made possible by interesting experiments performed by Dr. Elio Perini of Milan, who determined that only a liquid extract of aleurone obtained by means of the so-called P-process is able to reintegrate all of the important biological values lost in the milling operation.

The added aleurone restores the food to its natural nutritional value. The restoration of this vital ingredient will improve the food and bring back increased consumption of bread and macaroni.

### Sanitation Short Course

The American Sanitation Institute division of the Huge Company of St. Louis announces the first of a series of short courses on sanitation for May 23 in St. Louis.

The program will include "Practical Food Plant Sanitation as Seen by the Food and Drug Administration" by Leo J. Cramer, Chief Inspector of the St. Louis District. Other topics will include insect control, rodent control, control of flies, and planning a sanitation program.

### The Home Market

American women are now engaged in biggest business in the world—home management. Last year, U.S. homemakers spent about \$230 billion on goods and services—3 times the federal budget.

## How Sterwin Enrichment Gives Your Macaroni A SALES PLUS Easily and Economically...

**B-E-T-S.**

Enrich batch method macaroni with B-E-T-S, the original food enrichment tablet.

**VEXTRAM**

Enrich continuous press macaroni with VextraM, the original starch base enrichment mixture and use the Sterwin Feeder.

**SUCH** an overwhelming majority of today's shoppers are nutrition conscious that enriched foods just naturally sell better. And that's as true in macaroni products as it is in bread, milk and other foods. Customers know enrichment means better health... alert manufacturers know it means better business.

And this profitable sales plus can be added to your macaroni products at nominal cost through Sterwin's Enrichment Service. For Sterwin, originators of standard enrichment agents for both batch and continuous process macaroni production, are long-experienced specialists in easy, accurate and economical enrichment.

Sterwin Enrichment provides a strong selling point well worth stressing in your advertising and on your package. You'll be agreeably surprised at its low cost.

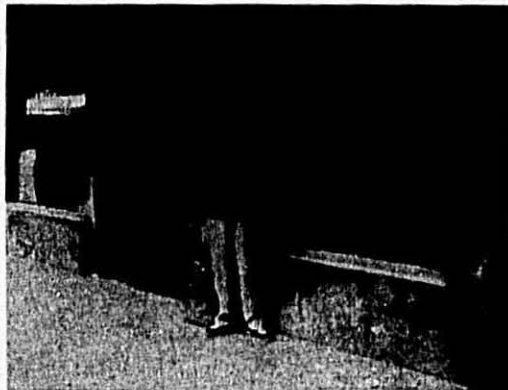
See your Sterwin Technically Trained Representative or write direct for prices and details. No obligation of course.

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Subsidiary of Sterling Drug Inc.  
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PIONEERS IN MACARONI PRODUCTS ENRICHMENT



**WAY DOWN YONDER**

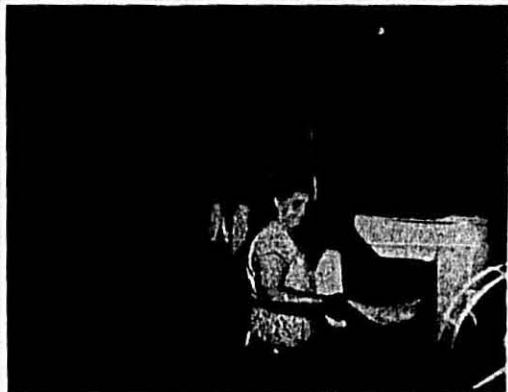
**... IN NEW ORLEANS**



HENRY CIMO, proprietor of L. Mangano & Co. manufactures in the back of his retail store on St. Phillippe Street.



TAORMINA BROTHERS are well known wholesale grocers as well as macaroni manufacturers. Their plant and offices are on Chartes Street.



HYDRAULIC PRESS in the plant of New Orleans Macaroni Company. Batch method is still employed in most New Orleans plants.



FRENCH PRESS, more than 75 years old, enables George Juncker to manufacture some of the thinnest vermicelli sold in the country.

TEN manufacturers made macaroni products in New Orleans a year ago, but today there are only seven. Two of the firms are under the same management, although individual brand identity is maintained.

Outside the National Food Products, manufacturers of the Luxury Brand, all of the plants are located in the Vieux Carre, or famous French quarter of New Orleans.

For the most part they are small establishments, family-owned and managed.

For example, Taormina Brothers are important wholesale grocers who manufacture macaroni to meet the demand of their customers.

L. Mangano & Company is run by

Henry Cimo with his two sons. Manufacturing is done in the back, and the product is sold at retail in the front of the store along with cheese and other Italian specialties.

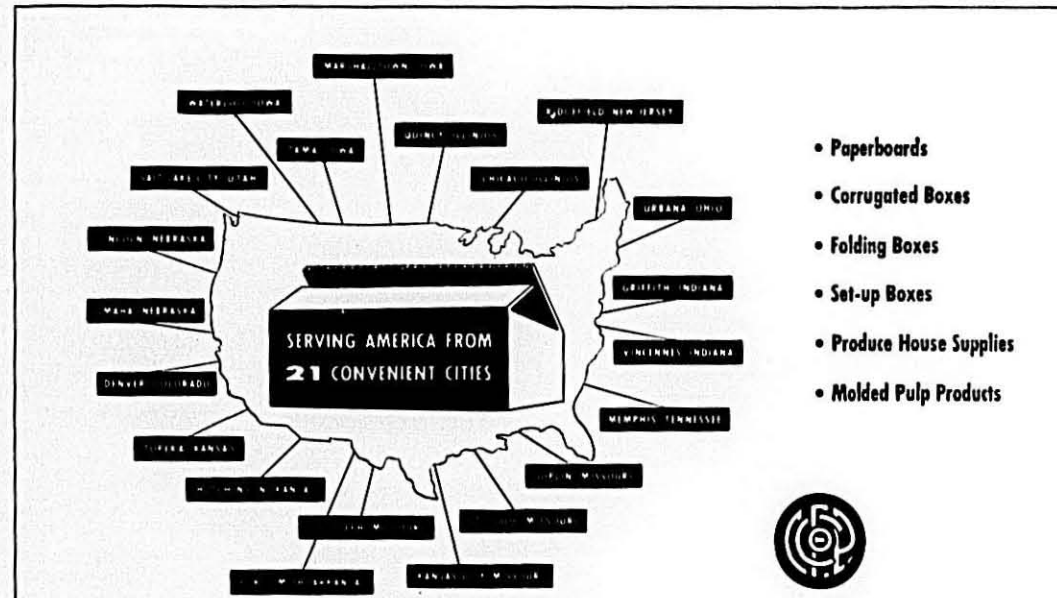
The Gend Wah Macaroni Company is run by a Chinese family. Lee Poo is the manager. Much of the output of this Chinese plant goes to French and Italian restaurants.

The Peres Vermicelli Manufacturing Company, run by George Juncker, claims fame by making the thinnest vermicelli in the country. The company was founded 89 years ago by a French family. The same press that was brought here 75 years ago is in use today. It was originally run by hand, then had a gasoline motor put on it, and is now run

electrically.

Most of the New Orleans manufacturers operate in the city limits, supplying metropolitan consumers. National Food Products does go beyond the state lines in distributing its products throughout the South.

In many ways the problems of the New Orleans area are typical with those on a national scale. While there are many Italians and French in the city as well as others that love macaroni, spaghetti and egg noodles, there is keen competition from rice, which is grown in the area, and from many other foods. Being a port of entry, there is also imported merchandise coming in to give added competition to domestic manufacturers.



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## DEVELOPING A PRODUCTION MANAGER

By F. Y. Tiernan, H. J. Heinz Company,  
at American Management Association Conference

THE production executive must cope with automation, statistical quality control, overhead budgets, standard costs, and the ice on the front steps. But something has been added to create new problems for him: he has been given "help" in the form of "innumerable staff men who specialize (purely on a functional and advisory basis, of course) in such things as standard costs, industrial engineering, process engineering, metallurgy, statistical quality control, etc."

The production man, Mr. Tiernan said, needs help, but he "resents staff people who report to their functional head, who in turn contacts his superiors. He resents the demands of his time not only in putting out fires but in answering many false alarms. In seeking to give them help, how did we ever open Pandora's box?"

The solution, he suggests, lies in developing the right kind of men for these jobs. The production man should ask for and welcome the help he needs from staff men, but he must accept his own responsibility and exercise his own authority: "he should give his opinion

firmly and sign his name." The staff man should attempt to gain the confidence of the production supervisors by sincerely trying to work with and through them.

"All of us," the speaker said, "can help attain this goal by using the same yardstick for all manufacturing personnel. Each man can be fairly measured by what he contributes to furthering his company's success, whether it be through line or staff."

Heinz, he said, is making an organized effort to find, train, and develop production-minded men. Most of them are promoted from the ranks, with a continual spicing from the college campus. Trainees are assigned to an experienced executive for counseling. They go through an orientation program, which covers company policies and objectives, physical and organizational layout of the plant, rotation through departments, visits to suppliers and the advertising agency, night courses, and dinner meetings addressed by members of top management.

Development is mainly on the job, since "the best training for management

is to manage; the best teacher, experience. The best method is to put a likely candidate with a good boss in order that he will acquire the know-how of the master." He is given opportunity to exercise his own judgment and to make mistakes so that he may learn to admit and profit by his failures.

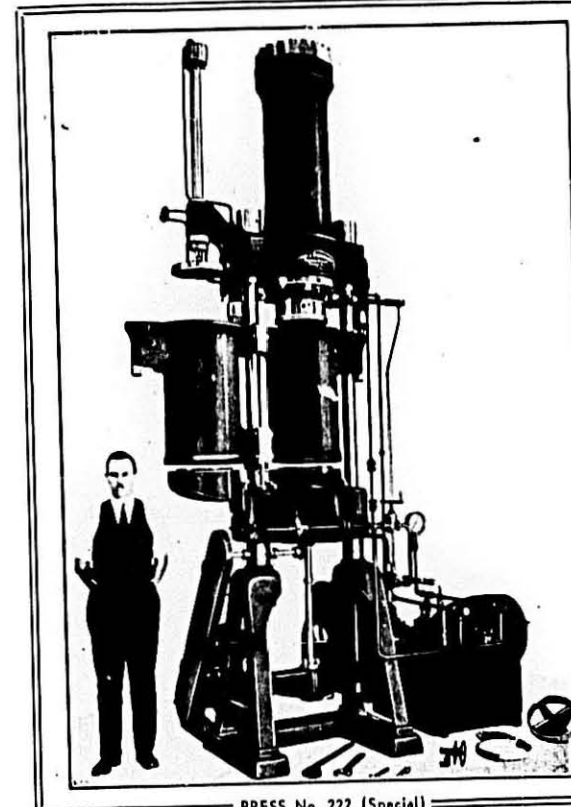
The crux of the problem, Mr. Tiernan said, is one of "creating in the selected, competent, trained individual the desire to continue to want to be a production manager when the job has nothing to recommend it except blood, sweat, and tears. We want the 'damn the torpedoes' type who is not afraid to make decisions; men who will gain momentum, ability and judgment because they know they will not always be right—but they are not afraid of being wrong."

### Quality Control

The increased competition for the consumer's dollar is making it practically imperative that even the smallest processor or manufacturer take cognizance of the growing technology that surrounds him. This, therefore, impels a manufacturer to maintain some degree of effective laboratory control, states James J. Winston, NIMA Director of Research.

A number of business consultants feel that laboratory quality control is a

(Continued on page 30)



PRESS No. 222 (Special)

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Harrison, N. J. . . . U. S. A.

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

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and Egg Noodles.
- 3—Semolina and Flour Analysis.
- 4—Rodent and Insect Infestation Investigations.  
Microscopic Analyses.
- 5—Sanitary Plant Inspections.

James J. Winston, Director  
156 Chambers Street  
New York 7, N. Y.

## GETTING TOGETHER

Getting together once or twice a year will serve a good purpose in many ways. Paul S. Willis, president of the Grocery Manufacturers of America, Inc.

You get acquainted with your competitors and to your surprise you find out that they have common beings and in most instances common goals. You find out that a lot of things you hear about them were untrue and simply trade gossip. You find out also that they heard the same thing about you.

Instead of taking business away from each other concentrate on a joint effort designed to bring to greater total consumption of your products. Then surely one will have a bigger share.

51st Annual Meeting, Coronado, California  
June 21-22-23

NATIONAL MACARONI  
MANUFACTURERS ASSOCIATION



## RETROSPECTIONS

by  
M. J.



### JUNE Cleanings and Recollections 35 Years Ago

• Convention slogan—Help make the BIG BOOSTER CAMPAIGN for New Members a success by inducing some macaroni manufacturer to join NMMA. GET A MEMBER!

• W. G. McMillen, State Purchasing Agent of California states: "An investigation of alimentary paste manufacturers has been ordered relative to profiteering in macaroni, spaghetti, etc." The manufacturers replied: "Welcome!" • Punctuation makes a difference. From a dress-makers convention an editor writes his paper: "When Mrs. Jones lectured on dress, she wore nothing that was remarkable". His proof-reader edited it to read: "When Mrs. Jones lectured on dress, she wore nothing; that was remarkable".

• Another revolution is taking place, slowly but surely. The fibre box is revolutionizing shipping and we are helping it along with our Monitor Hox Stickers . . . Ad of Latham Machinery Co.

• Rossi machines "FOOL" the weather. A. Rossi & Co., San Francisco, Calif.

• Export demand brisk—P. Pastene & Sons, Inc., New York City.

• Sees no improvement in World Food Shortage.—M. Purdy, English Food Administrator to the House of Commons, England.

### 25 Years Ago

• "BON VOYAGE" to the National Macaroni Advertising Campaign. F. Maldari & Bros. Inc. New York City—Advertisement.

• THE BUILDERS, by Henry Wadsworth Longfellow. Reproduced to honor the stout-hearted firms that pledged their support of the industry's first nationwide advertising campaign to make Mr. and Mrs. America more conscious of the fine food merits of Macaroni Products.

• Recipe Contest Launched, with prize offerings:

Prizes	Macaroni	Spaghetti	Egg Noodles
First	\$500	\$500	\$500
Second	250	250	250
Third	100	100	100
Fourth	50	50	50

5th to 14th 25 ea. 25 ea. 25 ea.  
101 Honorary Awards 5 ea. 5 ea. 5 ea.

• A very home-y cut shows Rosa Ponsella, popular opera star preparing her

favorite dish of Spaghetti, under the critical supervision of "la Mama".

• "Clermont" Noodle Cutting Machine, NA-2 with flat noodle-folding attachment to make flat noodles for the bulk trade and flat noodles for the package trade. Ad of Clermont Machine Co., Inc., Brooklyn, N. Y.

### 15 Years Ago

"I say—discuss oil and expose all! I am for every topic openly . . . There can be no safety for these States Without free tongues and ears. Willing to hear the tongues."  
—Walt Whitman.

• "Caramelle Vent, Vent al sold!" . . . the cry of the Torino, Italy street vendor to attract tourists' trade. Literally translated, it means—"Twenty candies for a penny". Its counterpart in the U.S. is the shouting ad of a Macaroni firm.—"Two 7-ounce packages of Macaroni or Spaghetti for a Nickel".

• INTERESTING. Article on "Weevils from Eggs in Raw Materials", by professor Domenico Costa, Direttore del Laboratorio Chimico Provinciale di Trieste, Italy.

• CANNED SPAGHETTI is an American idea. Article by J. E. McLaughlin of Campbell Soup Co., Camden, N.J.

• The SELLING VALUE of the modern macaroni-spaghetti-egg noodle package is getting increasing recognition by the progressive manufacturers and the studied attention of the designers of packages and the producers of labels and cartons that must attract and sell. Statement by Charles C. Rossotti, Executive Vice President of Rossotti Lithographing Co., Inc., North Bergen, N.J. whose president is Alfred Rossotti.

### 5 Years Ago

• "Thank you for your support", says C. L. Norris, NMMA President in his retirement message to the assembled manufacturers.

• Late Spring Threatens 1950 Durum Crop, reports Maurice L. Ryan, Chairman of the Durum Growers Relations Committee.

• NO PROGRESS WITH PROFITS—Glenn G. Hoskins, Industry Consultant.

• REACHING THE TOP THE HARD WAY. Emanuele Ronzoni, Sr. now 80 years old and retired, recalls his strenuous climb to success.

• Bob Green of the National Macaroni Institute estimates that as of May 1950,

there are in use at least 8,213 macaroni products recipes.

• The Consolidated Macaroni Machine Corporation in existence 41 years was formed in 1926 by the merger of Cevasco, Cavagnaro & Ambrette, Inc. founded in New York City in 1909 and I. Di-Francisci & Sons, Inc., founded in Brooklyn in 1913.

• October 5 through 14 was announced as 1950 Macaroni Week.

• Only 3,880,000 pounds of semolina were exported in 1949. Columbia, South America was the heaviest buyer.

## CLASSIFIED

ADVERTISING RATES  
Display Advertising—Rates on Application  
Want Ads—75 Cents per Line

## INDEX TO ADVERTISERS

Amber Milling Division, G.T.A.	3
Ambrette Machinery Corp.	26, 27
Braibant Co., M. & G.	31
Buhler Brothers	11, 12, 43
Capital Flour Mills	Cover IV
Cavagnaro, John J.	49
Cavagnaro, N. J. & Sons Machine Corp.	48
Central Fibre Products Company	47
Clermont Machine Company, Inc.	22, 23
Clybourn Machine Corporation	37
Commander-Larabee Milling Co.	7
DeFrancisci Machine Corporation	16, 17
General Mills, Inc.	9
Hoffman-LaRoche, Inc.	Cover III
Jacobs-Winston Laboratories, Inc.	49
Keever Starch Company	41
King Midas Flour Mills	19
Lazaro, Frank, Drying Machines	34
Maldari, D. & Sons	15
Milprint, Inc.	29
Oldach, William	34
Rossotti Lithograph Corporation	Cover II
Sterwin Chemicals, Inc.	45
Tanzl, Guido	39
Waldorf Paper Products Company	47
Wallace & Tiernan, Inc.	48

## Quality Control —

(Continued from page 48)

profound management and marketing tool, if used wisely; to augment and supplement the experience you have already gained through the years by constantly attempting to produce a less expensive and better quality product for the ultimate consumer.

Scientific laboratory quality controls should result in the following:

1. Control over raw materials through the seeing of specifications.
2. Control over and improvement of production quality.
3. Constant development and improvement of formulas and methods, resulting in cost savings.
4. Control of the finished product.
5. Increased order and better house-keeping in your plant.
6. Improved customer acceptance of your product through greater confidence in a uniformly high quality piece of merchandise. "To Experiment is to Progress."

✓ CHECK AND FILE THIS IMPORTANT INFORMATION

## FACT FILE ON ENRICHMENT

The minimum and maximum levels for enriched macaroni products as required by Federal Standards of Identity are as follows:

### ALL FIGURES ARE IN MILLIGRAMS PER POUND

	Min.	Max.
Thiamine Hydrochloride (B <sub>1</sub> )	4.0	5.0
Riboflavin (B <sub>2</sub> )	1.7	2.2
Niacin	27.0	34.0
Iron	13.0	16.5

NOTE: These levels allow for 30-50% losses in kitchen procedure.

### Suggested labeling statements to meet F.D.A. requirements:

For macaroni, spaghetti, etc., from which cooking water is discarded—  
Four ounces when cooked supply the following of the minimum daily requirements:

Vitamin B <sub>1</sub>	50%
Vitamin B <sub>2</sub>	15%
Iron	32.5%
Niacin	4.0 milligrams

For short-cut goods from which cooking water is not usually discarded—  
Two ounces when cooked supply the following of the minimum daily requirements:

Vitamin B <sub>1</sub>	50%
Vitamin B <sub>2</sub>	10.5%
Iron	16.2%
Niacin	3.4 milligrams

## for batch mixing 'ROCHE' SQUARE ENRICHMENT WAFERS



Each SQUARE wafer contains all the vitamins and minerals needed to enrich 100 lbs. of semolina. They disintegrate in solution within seconds . . . have finer, more buoyant particles . . . and break clean into halves and quarters. Only 'Roche' makes SQUARE Enrichment Wafers.

## for mechanical feeding with any continuous press ENRICHMENT PREMIX

containing 'ROCHE' VITAMINS



1 ounce of this powdered concentrate added to 100 lbs. of semolina enriches to the levels required by the Federal Standards of Identity. If you use a continuous press, get the facts now on mechanical feeding of enrichment premix with 'Roche' vitamins.

## VITAMINS 'ROCHE'

For help on any problem involving enrichment, write to

Vitamin Division • Hoffmann-La Roche Inc. • Nutley 10, N. J.

ENRICHMENT WAFERS AND PREMIX DISTRIBUTED AND SERVICED BY WALLACE & TIERNAN CO., INC., NEWARK 1, NEW JERSEY

ENRICHMENT DATA





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ON ITS 51st ANNIVERSARY"**

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