

**THE
MACARONI
JOURNAL**

**Volume 41
No. 2**

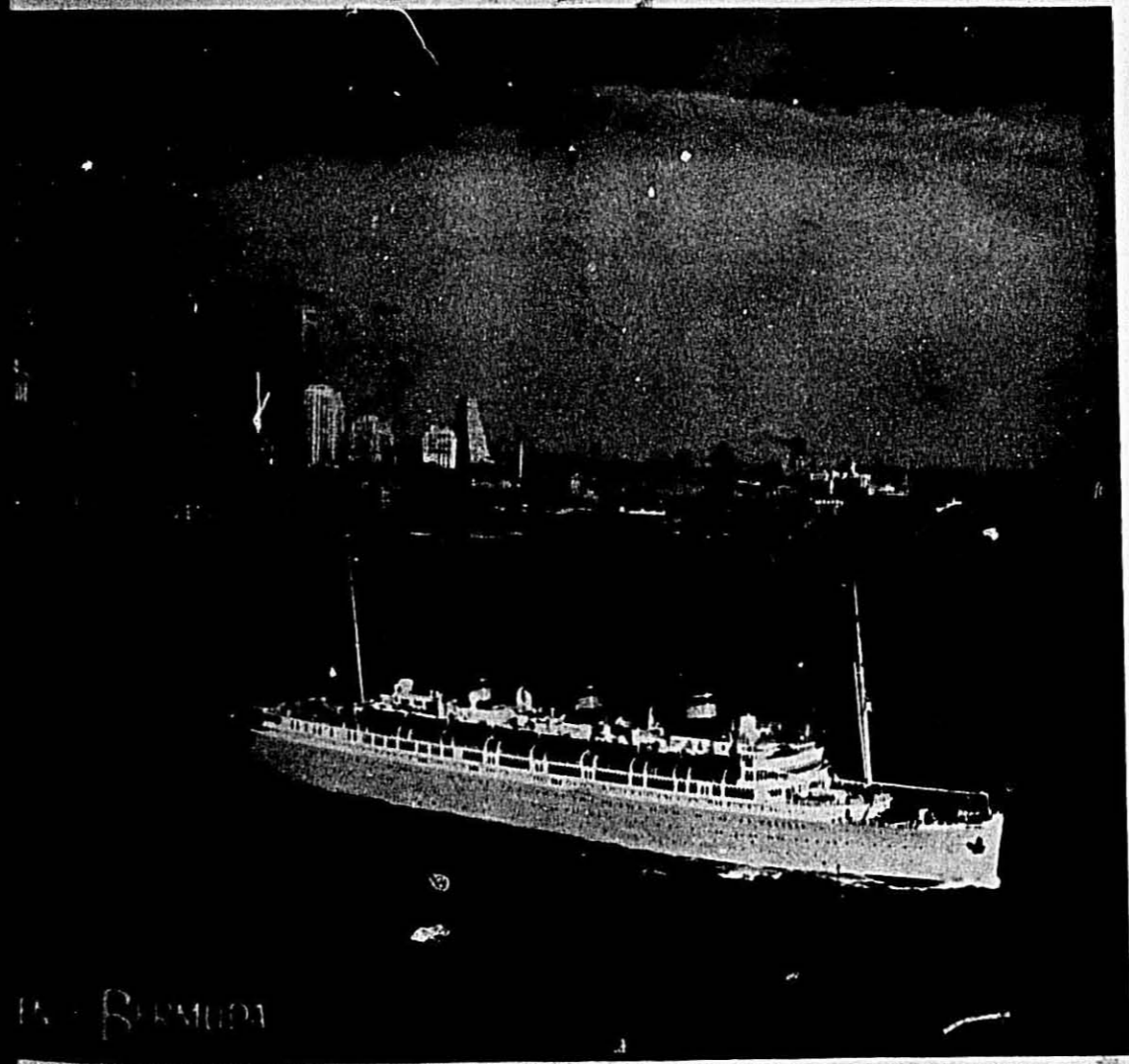
June, 1959

Macaroni Journal

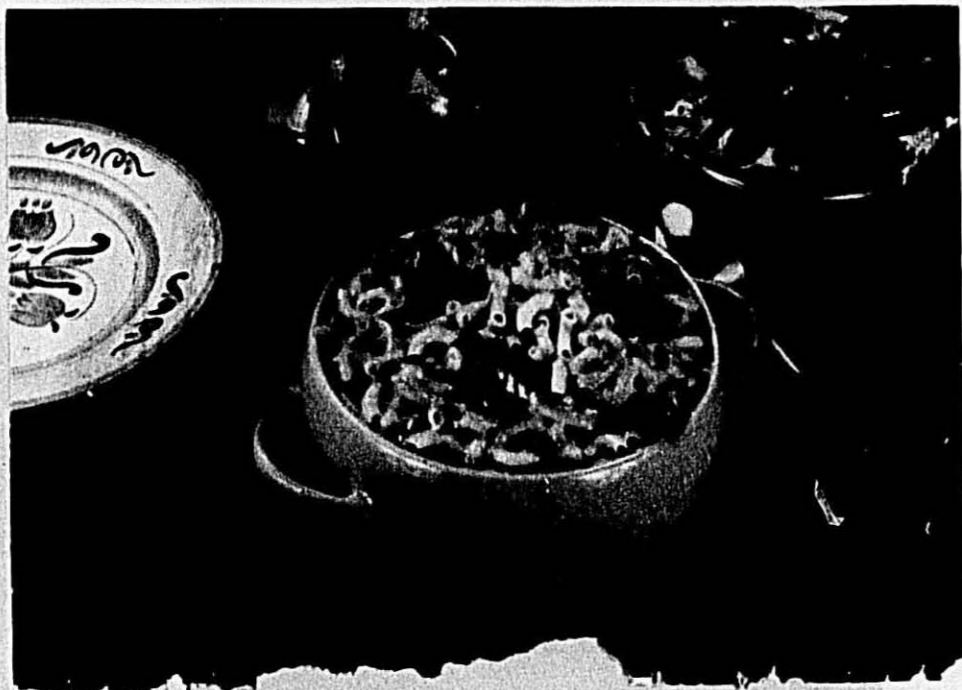
INTERNATIONAL
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ASSOCIATION



JUNE, 1959



PA. BERMUDA



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Yes, if it sells - *and keeps on selling* - from the point of purchase to the point of preparation! And that's what a ROSSOTTI-designed macaroni package does - because it uses dynamic taste-tempting appeal in ever new and exciting ways to invite the eye... *entice the buy!*

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Farmers Union Grain Terminal Association

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The MACARONI JOURNAL

June, 1959
Volume 41, No. 2

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Subscription rates:
Domestic\$3.00 per year
Foreign\$4.00 per year
Single Copies50c
Back Copies75c

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.

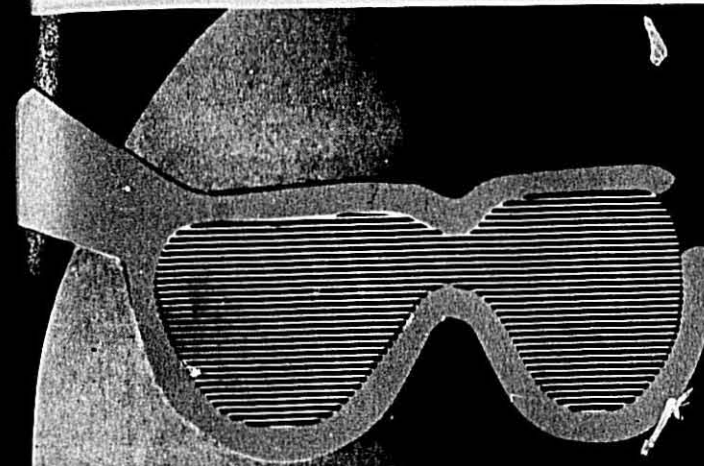
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Cover Photo

The Queen of Bermuda sails from New York Harbor on June 27 for the 55th annual convention of the National Macaroni Manufacturers Association and returns July 3.

The Macaroni Journal is registered with U. S. Patent Office. Published monthly by the National Macaroni Manufacturers Association as its official publication since May, 1918. Entered as second-class matter at Palatine, Ill., additional entry at Barrington, Ill., pending, under Act of Mar. 3, 1879.



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CONVENTION PROGRAM

Agenda for the 55th Annual Meeting
of the National Macaroni Manufacturers Association
aboard the Queen of Bermuda is announced.

Saturday, June 27.

Sail from New York City at 3 p.m. Daylight Saving Time. The President's Reception will be held in the evening, with dancing and entertainment.

Sunday, June 28.

Divine services will be held at sea while cruising the Gulf Stream. Shipboard activities include deck games and swimming.

The Board of Directors meets at 10 a.m. to review programs and policies.

The first general session will be held at 2:30 p.m. President Horace P. Gioia will preside, Vice President Emanuele Ronzoni, Jr. will conduct.

President Gioia will give the keynote address preceding a showing of the film, "Profitable Management for Main Street," by Dun & Bradstreet. This will set the stage for discussions on "The Formula for Success."

Discussion leaders are as follows: Joseph Pellegrino of the Prince Macaroni Manufacturing Company on Merchant Instinct; Nicholas Rossi of Procino-Rossi Corporation on Know-How; Raymond Guerrisi of San Giorgio Macaroni, Inc. on Buying Skill; George Williams of the Creamette Company of Canada on Selling Skill; Peter J. Viviano of Delmonico Foods, Inc. on Financial Management; and Robert M. Green on Outside Counsel.

A special program for the ladies will feature a panel of wives discussing "the Care and Feeding of Executives."



Keynote Speaker, Association
President Horace P. Gioia

Participants will include Mrs. Lloyd E. Skinner, Mrs. Peter La Rosa, Mrs. Robert Cowen, Sr.
There will be dancing and entertainment in the evening.

Monday, June 29.

The Queen of Bermuda docks at Hamilton at 9 a.m. The ship will be used as your hotel with all meals provided. Optional shore excursions are available and time will be free for independent activities including shopping and golf.

The traditional Rossotti Spaghetti Buffet will be held aboard ship at 7 p.m.

Tuesday, June 30.

General Session - 9:30 to 10:30 a.m. - Vice President Albert Ravarino conducting.

"Planning for Durum" - Richard Crockett, president of the newly formed Durum Growers Association, will discuss the growers' problems, aspirations, and efforts for promotion and balanced production.

"The Durum Millers Report" - Durum Wheat Institute Committee by Lee Merry, Legislation by Ray Wentzel, Cooperation with Improvement Groups by Gene Kuhn, New Crop Prospects by Lester Swanson, Government Loans and CCC Stocks by Anthony De Pasquale, Grain Value Outlook by Clifford Kutz, Durum Millers Review by Phil R. Fossen, DWI Plans and Projects by Howard Lampman.

Balance of the day is free for independent activities.

Wednesday, July 1.

General Session - 9:30 to 10:30 a.m. - Vice President Fred Spadafora conducting.

"Macaroni Publicity" by Theodore R. Sills, public relations counsel for the National Macaroni Institute.

The Board of Directors will hold an organizational meeting immediately following the general session.

The ship sails from Bermuda at 4 p.m. General Mills plans a cocktail party and reception preceding dinner. There will be dancing and entertainment in the evening.

VICE PRESIDENTS WILL CONDUCT CONVENTION SESSIONS



EMANUELE RONZONI, JR.



ALBERT RAVARINO



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AMERICA'S LARGEST MACARONI DIE MAKERS SINCE 1903

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Thursday, July 2.

General Session - 9:30 a.m. - President Horace Gioia conducting.

"What a Macaroni Manufacturer Can Expect from his Advertising Agency" by Charles V. Skoog, Jr., president, Hicks & Greist, Inc., New York City.

King Midas Flour Mills will have a Reception and Special Luncheon for the Ladies.

Round-table discussions will begin at 2:30 p.m., Secretary Robert M. Green conducting.

"What's New in Processing" - data on production equipment, dryers, and new specialties from equipment men moderated by John Amato.

"What's New in Packaging" - up to date ideas in materials and methods moderated by Charles Rossotti.

"Traffic Matters" - a report by Sidney J. Grass.

"The Egg Situation" - reported by Robert Cowen, Sr.



CHARLES V. SKOOG, JR.

"Ingredients and Standards" - moderated by James J. Winston.

"Labor Matters" - reported on by Vincent De Domenico.

Other subjects may be scheduled if time permits.

Plant Operations Forum

The Glenn G. Hoskins Company of Libertyville, Illinois, held their tenth plant operations forum in mid-April at Wieboldt Hall on the Northwestern University Chicago campus. More than eighty macaroni plant managers and allies attended.

Research and development were emphasized as vital ingredients in progress by Charles M. Hoskins. Excerpts from his comments may be found on page 16.

A panel of operating people spoke from practical experience on what they have gained from testing programs. Highlights of these comments appear on page 20.

C. W. Brabender, inventor and developer of the farinograph, amylograph and other flour testing machines that bear his name, described the use of such testing equipment in research and quality control. Highlights of these comments will appear in the July issue of the Macaroni Journal.

Elmer F. Glabe, director of the Glenn G. Hoskins Food Technology Laboratory in Chicago, reported that sufficient volume of work has been done in evaluating raw materials and finished macaroni products that important guides are being set up for their clients.

Dr. Rae Harris, head of the Department of Cereal Technology, North Dakota Agricultural College, Fargo, North Dakota, described testing and development work in durum plant breeding. Excerpts from his comments appear on page 24.

The importance of financial policies to production men was discussed by



PETER J. VIVIANO

William G. Hoskins. Highlights appear on page 28.

Peter J. Viviano of Delmonico Foods stressed the importance of statistical cost control in management. He stated, "By the proper manipulation of statistical cost controls, business management can keep up with branch operations without ever seeing the physical assets. A person of intelligence can see certain problems more clearly and solve them more readily with the aid of mathematics. It is for that reason that much value is placed on statistics."

In a discussion on employee payment policies, John W. Sheets of San Giorgio Macaroni, Inc., observed that job evaluation is a systematic study of setting dollar values for work factors. He advocated such study to eliminate sus-

picion and dissatisfaction among employees and to make for fair play.

Albert Robillo of Ronco Foods, Memphis, related how the paying of incentives in their packaging department had increased production, increased employee satisfaction and reduced costs.

Robert Freschi of Ravarino and Freschi, St. Louis, observed that it is difficult to pay for merit in direct wages - such compensation usually must follow the lines of fringe benefits.

Nick Rossi of Prociolo-Rossi Corporation suggested prospective employees talk to the worker's wife to learn what her pet peeve is about her husband.

This frequently gives better insight than psychological tests, interviews or telephone references.

Future security is of real concern to every worker, Robert Cowen of A. Goodman & Sons, Inc., observed. Company insurance and pension plans supplement Social Security payments to meet this need.

Machines for weighing and packaging long goods were discussed by William Hoskins and are reported on page 34.

Open forum discussions were held on a variety of questions ranging from techniques in handling regrinds to "are continuous long goods dryers here to stay?" The answer "Yes" to the latter was emphasized as a mark of progress.

Students attended a dinner meeting at Chicago's Allerton Hotel to view the films of the National Macaroni Institute, "Stag Party" - about a spaghetti buffet, and "Use Your Noodle", for easy entertaining.

In the evening, dancing and entertainment will follow the traditional Banquet.

Friday, July 3.
The ship arrives in New York at 9 a.m. Daylight Saving Time.

Reservations for accommodations should be made directly with Mr. Reginald Martine, Jr., Convention Manager, United States Travel Agency, Inc., 807 15th Street, N. W., Washington 5, D.C.

The National Macaroni Manufacturers Association is offering a discount for advance convention registration. \$2.50 may be taken off the \$7.50 fee for all delegates, including wives, if paid prior to sailing. The convention registration fee covers badges, programs, special activities for the ladies including bridge prizes, and special events.

Golfers will pay their green fees and caddies and are reminded to bring their own clubs.

There is something special
about Macaroni products made from

King Midas

Let's have "something special" is the phrase that is heard more and more often from New York to L. A. Let's have a different kind of meal—but with lots of appetite and health appeal. Let's have a meal that satisfies all the family all the time.

Everyone knows that macaroni products are economical—but do they know that they can be "something special" dishes too.

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King Midas DURUM PRODUCTS
MINNEAPOLIS MINNESOTA



GLENN G. HOSKINS COMPANY
PLANT OPERATIONS FORUM

Macaroni men study at Hoskins Plant Operations Forum. Bottom row, left to right: Thomas J. Viviano, Delmonico Foods, Louisville; Robert Freschi, Ravarino & Freschi, St. Louis; Sidney Grass, I. J. Grass Noodle Co., Chicago; Rita May Tharinger, Tharinger Macaroni Co., Milwaukee; Edith S. Linsley, Glenn G. Hoskins Co., Libertyville; Marian Meckbach, Mayme B. Rogan, and Vene Wheeler, Grocery Store Products Co., Libertyville; Nicholas Rossi, Procino-Rossi, Auburn, N.Y.; Ralph Maldari, D. Maldari & Sons, Inc., Brooklyn; M. V. Vagnino, American Beauty Macaroni Co., Kansas City, Mo.; Leroy Hower and John Sheetz, San Giorgio Macaroni, Inc., Lebanon, Pa.; Leo Buser, Delmonico Foods, Louisville

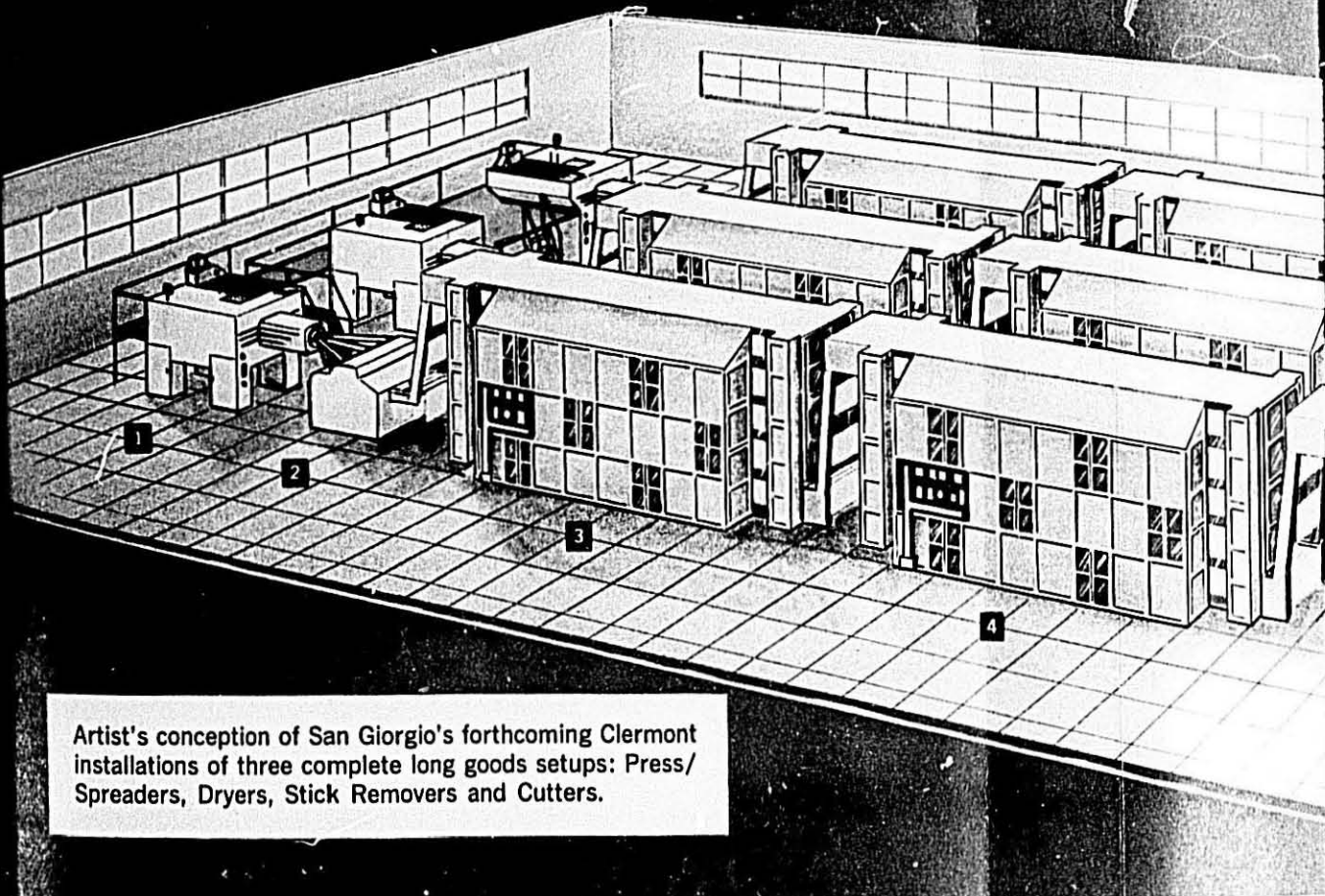
Second row: Russell Houston, Delmonico Foods, Louisville; Vic Bagnas, Minnesota Macaroni Co., St. Paul; Mr. Hazlett, Creamette Co., Minneapolis; Walter Villaume, Jr. and Walter Villaume, Sr., Minnesota Macaroni Co., St. Paul; Peter J. Viviano, Delmonico Foods, Louisville; Wedo Sebben and Elmer Bacon, Grocery Store Products Co., Libertyville; Harry Bystrom, Tharinger Macaroni Co., Milwaukee; Ben Hansen, Eugene Karpiak, and Cliff Bennett, Creamette Co., Minneapolis; Tony Hylek, Kellogg Co., Lockport, Ill.; J. T. Williams, Jr., Creamette Co., Minneapolis.

Third row: R. J. Bruning, International Milling Co.; Ettore Berini, Braibanti Co., Milan, Italy; Ronnie Novelen, Grocery Store Products Co.; William Fieroh and Alvin Karlin, I. J. Grass Noodle Co., Chicago; John Amato, Clermont Machine Co., Brooklyn; Robert Cowen, A. Goodman & Sons, Inc., Long Island City, N. Y.; Albert Bono, Jr., John B. Canepa Co., Chicago; W. Berger, Buhler Brothers, Inc.; C. Mickey Skinner, Skinner Mfg. Co., Omaha; Rudy Schenk, Buhler Brothers, Inc., Englewood, N. J.; John Curry, C. F. Mueller Co., Jersey City, N. J.; Nat Bontempi, De Francis Machine Co., Brooklyn; Don Knutsen, General Mills, Chicago; Ed Finch, Grocery Store Products Co., Los Angeles; Leonard De Francis, Brooklyn.

Fourth row: W. G. Hoskins, Hoskins Co., Libertyville, Ill.; Ernest Ravarino, Ravarino & Freschi, St. Louis; Al Katske, Gooch Food Products, Lincoln, Neb.; Robert Cowen, Jr. and Alfred Tosi, A. Goodman & Sons, Inc. Long Island City, N. Y.; A. E. Davis and Leo Rerucha, Gooch Food Products, Lincoln, Neb.; Paskey De Domenico, Golden Grain Macaroni Co., Seattle.

Top row, left to right: James Driscoll, Amber Milling Co.; Rex Concannon, Crescent Macaroni Co., Davenport, Iowa; Robert M. Green, NMMA; Arthur Russo, A. Russo & Co., Chicago; John Linstroth, Creamette Co., Minneapolis; B. N. Hempel, General Mills.

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Artist's conception of San Giorgio's forthcoming Clermont installations of three complete long goods setups: Press/Spreaders, Dryers, Stick Removers and Cutters.

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AUTOMATIC SPREADER to work in conjunction with the press. Newly designed to handle four sticks—truly a masterpiece; the result of years of research, engineering and experimentation. Totally enclosed with no exposed motors or mechanism. Extruder head enclosed in a water jacket to maintain a uniform flow of product, and to eliminate all but minimal trimming. Unique trimming device. Automatic die removal within minutes. Meets most exacting sanitary requirements.

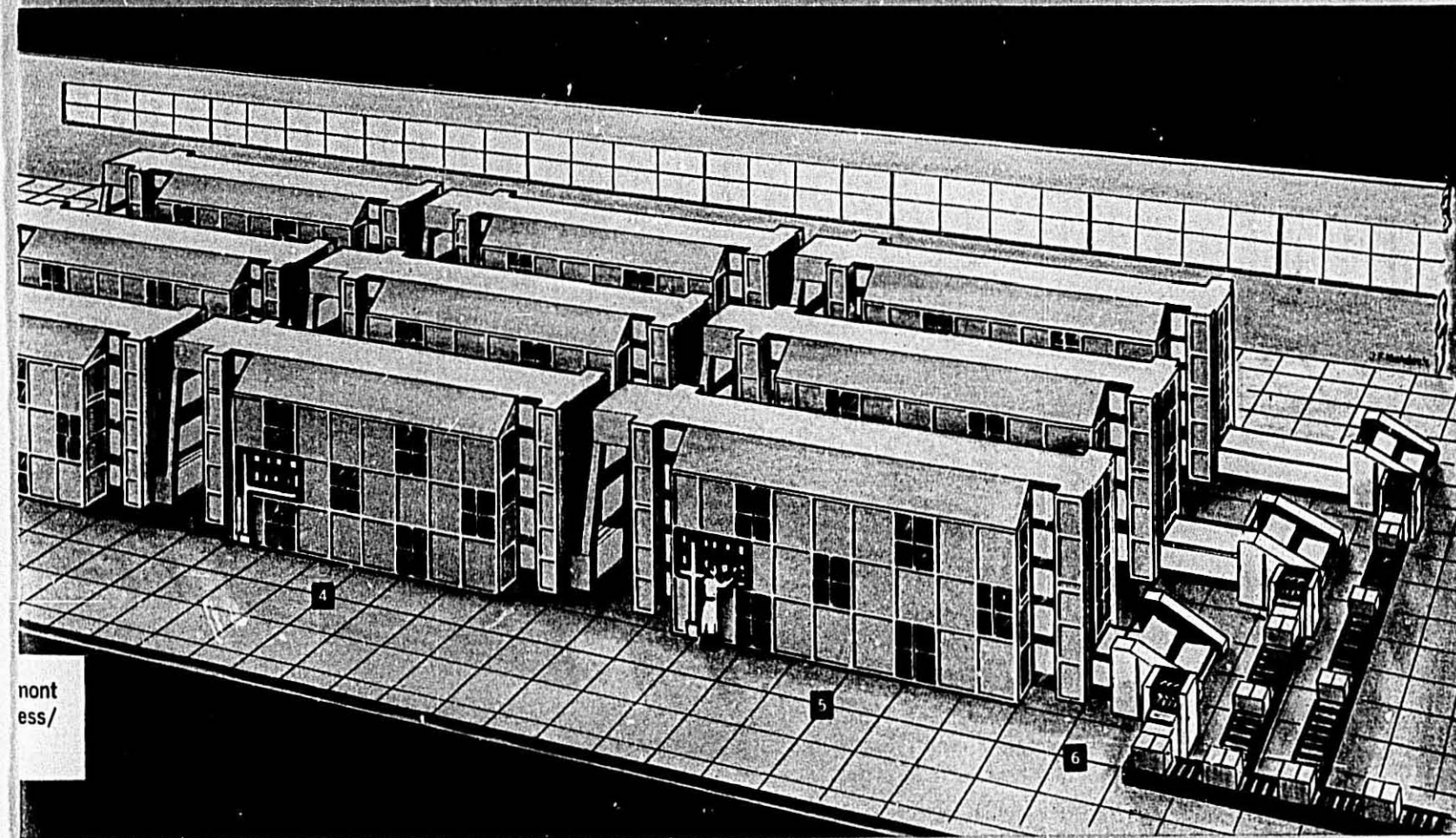
1 PRELIMINARY DRYER redesigned with many new features, to accept 1500 lbs. per hour. Has five tiers. Gives large volume of air on product, at low velocity, to penetrate through the product during entire preliminary drying process. Air intake passes through preheating chambers on both sides, making atmospheric conditions no longer a factor.

2 PRIMER FINISH DRYER includes same features as the "Preliminary." Precise mechanism in each dryer unit. Stick transporting apparatus moving from one tier to another is constructed to prevent sticks from falling. With perfect timing, it delivers sticks precisely on successive, or alternate chain links, dependent upon which tier is being processed.

3 FINAL FINISH DRYER redesigned with many new features, to accept 1500 lbs. per hour. Has five tiers. Gives large volume of air on product, at low velocity, to penetrate through the product during entire preliminary drying process. Air intake passes through preheating chambers on both sides, making atmospheric conditions no longer a factor.

4 STICK REMOVER & CUTTER includes same features as the "Preliminary." Precise mechanism in each dryer unit. Stick transporting apparatus moving from one tier to another is constructed to prevent sticks from falling. With perfect timing, it delivers sticks precisely on successive, or alternate chain links, dependent upon which tier is being processed.

for the '60s with our Building Expansion Program
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1. PRELIMINARY DRYER redesigned with many new features, to accept 1500 lbs. per hour. Has five tiers, gives large volume of air on product, at low velocity, to penetrate through the product during entire preliminary drying process. Air intake passes through preheating chambers on both sides, making atmospheric conditions no longer a factor.

2. PRIMER FINISH DRYER includes same features as the "Preliminary." Precise mechanism in each dryer unit. Stick transporting apparatus moving from one tier to another is constructed to prevent sticks from falling. With perfect timing, it delivers sticks precisely on successive, or alternate chain links, dependent upon which tier is being processed.

3. FINAL FINISH DRYER—Additional to all other features, each dryer unit has self-control instruments for humidity, temperature and air. Drying cycle through all three dryer units is completed in 24 hours, to include four rest periods, that delivers a product which is evenly dried, smooth and strong in texture, with eye-appealing bright color.

4. STICK REMOVER & CUTTER works in conjunction with the Final Finish Dryer in continuous operation. Equipped with three split blades which simultaneously cut off heads and ends of product and also cuts product in half. The blades are adjustable and constructed so that either one, two, or three can be removed. Mechanism functions so smoothly that product breakage and waste is completely eliminated.

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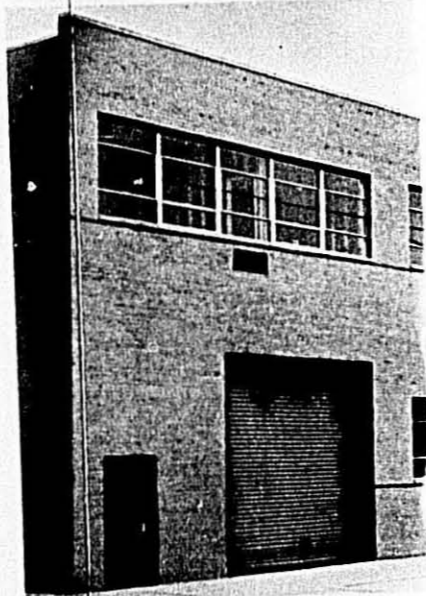
Again leads the way with 1500 POUNDS PER HOUR FULLY AUTOMATIC EQUIPMENT for Manufacture of Macaroni/Noodle Products from the raw materials up to the packaging machines.

Expansion is the order of the day because the continually growing demand for Clermont's new designs required the addition of 40% more manufacturing and engineering space. Clermont has entered 1959 and the promising future with better and more facilities to serve the Macaroni/Noodle Industry with unique developments that will once more revolutionize the Industry's manufacturing processes.

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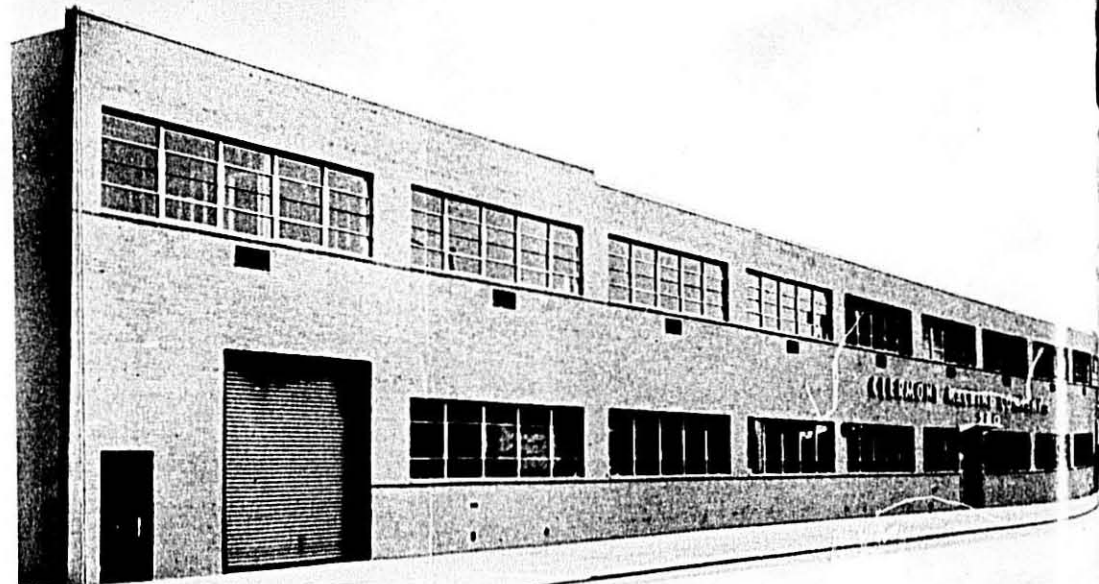


Engineered plant layouts for the smallest to the largest manufacturer. Expert engineering guidance for building modernization or new building. Engineering and fabrication of specialized equipment for special purposes.

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62,000 MANUFACTURING AND STORAGE
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Engineered plant layouts for the smallest to the largest manufacturer. Expert engineering guidance for building modernization or new building. Engineering and fabrication of specialized equipment for special purposes.

Clermont

QUALITY CAN PUT YOU AHEAD OF COMPETITION

June, 1959

THE MACARONI JOURNAL

15

for appetizing
appearance...



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for
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DURUM DIVISION
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Research and Development, Vital Ingredients in Progress

by Charles M. Hoskins, Glenn G. Hoskins Company

The macaroni industry has passed through three stages. During the first stage, prior to the first World War, small companies manufactured macaroni for consumption by the Italian populations of some of the large cities. The second stage began shortly after the first World War and consisted of the growth in size of the companies and the establishment of macaroni as an American food.

The third stage of development, which began near the start of World War II, was the application of automatic controls and continuous equipment to the process in order to increase efficiency and quality and reduce the amount of labor required. This development has reached a point where practically every operation in the macaroni factory has been made automatic and continuous, with the exception of long goods weighing.

Scientific Era

The industry is now entering upon a fourth stage of development which might be called the scientific era. Macaroni manufacturers and allied trades have been turning more and more to the techniques and resources of modern science to improve quality and solve production problems.

Our industry has now reached the point where the financial resources, trained personnel and efficient equipment necessary for scientific research are available. How can we apply this scientific method to the macaroni industry?

Macaroni is produced for two purposes. First to place a delicious and nutritious macaroni dish before the consumer; second to produce a profit for the people who have done the work. All research and scientific effort should be aimed toward this. The two key words are "Profits" and "Quality."

Let's look at what quality means to the consumer upon seeing it in the store. It should have a uniform yellow color, be free of blemishes and roughness, and have a uniform size and shape, free from broken pieces, checks and splits.

When the consumer cooks it, it should hold its shape. It should be resilient and firm. It should not tend to stick together. These desirable characteristics should be retained as long as possible if the product is overcooked. We cannot train all housewives to do a good job of cooking, but we can do our best to make a product which will stand up to poor cooking.



CHARLES M. HOSKINS

Eating quality of macaroni consists of taste, firmness, and elasticity.

A good or superior final quality is the principal aim of all the work and research which has gone into the making of a macaroni product. One aim in research should be the development of a reproducible cooking test which can compare the qualities of different macaroni products objectively. This cooking test should give the same results regardless of who runs the test and it should measure the quality characteristics which will make consumers like or dislike the dish. Many such tests have been worked out. Most of them measure the rate of absorption of water upon cooking and the amount of macaroni which dissolves in the cooking water during the cooking period.

Interest in Profits

The consumer is also interested in profits in the sense that all other factors being equal, she will buy the cheapest product in order to save money. The housewife profits if the steps of manufacturing have been carried on in an efficient and low-cost manner.

We have considered quality and profits as they affect the final processor of macaroni, the consumer. Let us now consider the P's and Q's of the macaroni manufacturer. The quality of macaroni bought by the consumer depends on the quality of the raw material purchased by the manufacturer and the effectiveness of his manufac-

turing process. Probably the raw material affects finished quality more than the manufacturing process, unless great damage is done to the product during manufacture by mold or check.

Semolina is the raw material which is easiest to process in the plant. It does not have fine particles, so it does not fly around in the air and cause sanitation problems. It flows easily through spouts and chutes. It absorbs less water than flour in the press. It mixes uniformly. The continuous press will have a higher production with semolina than with flour.

We know that some cheaper raw materials will give a very even extrusion pattern on the long goods continuous press. Others have given extrusion patterns which require that 30% of the spaghetti must be trimmed off and returned to the mixer to give an even distribution on the stick. A basic understanding of the physical properties of dough will be necessary before this problem can be completely solved. In part, the uneven extrusion pattern represents a lack of raw material quality, and in part it represents a type of spreader which will not handle material of lower quality.

Quality Affects Profits

Most processing qualities affect profits more than they affect quality because they result in inefficient operation and low production of equipment.

Let us now see what the miller must consider when he is thinking of quality and profit. The task of the miller is to separate the bran and germ from the endosperm, which is the part of the wheat kernel from which flour and semolina are largely made. The more complete the separation is, the more money the miller will make because bran mixed in with endosperm harms the color of flour and causes specks in semolina.

One of the chief problems faced by the miller is that he must dispose of all of the products which he is forced to make. Thus, if he sells semolina, he must dispose of first and second clears, red dog and feed. This problem is taken care of to some extent by putting a high price on semolina and a low price on clear so that some macaroni manufacturers will buy the clear. Or he can make a product called granular which consists of semolina and clear. However, this involves mixing the best product of durum wheat with one of the worst from the standpoint of macaroni manufacturing. Furthermore, the

One Installation leads to another



Prince Macaroni Manufacturing Company now operates these two Buhler Short Goods Lines side by side.

Prince Macaroni Manufacturing Company repeats its choice of

BUHLER Short Goods Lines

because these features pay off in profits—

- Superior performance
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- Relatively small space requirement
- Sturdy construction
- Less down time

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extreme range of particle size makes for very uneven mixing and white specks in the finished product.

Therefore, some research should be bent toward finding uses for durum clear. Clear flour has a higher percent protein than semolina, and it has some desirable cooking characteristics which might fit it for specialized uses such as canning. Furthermore, the clear is usually made from the best wheat because it is a byproduct of semolina. It contains more minerals than semolina. One of the big drawbacks is that the color is dark. It would be a good idea to thoroughly study the physical and chemical characteristics of durum clear to determine what desirable characteristics it has and to find out if there is some way of neutralizing the undesirable characteristics. This is a serious economic problem and it deserves research. If a use for clear could be found, the price for semolina would drop to some extent and people now using granular could shift over to semolina without too great a financial strain.

Sprout Damage

Another problem is the use of wheat which has been damaged by rain or high humidity at harvest time or after harvest time - in other words, sprouted wheat. Sprouted wheat seriously affects cooking quality of macaroni as well as the processing quality. It might be profitable to do research on methods of using flour made from sprouted wheat in such a way that the processing difficulties will be reduced and the affect on final cooking quality would be reduced. For example, it is known that some of the damage in sprouted wheat is due to the enzyme amylase. This amylase acts on the flour in the mixer to make it very sticky. There are known substances which inhibit the action of amylase and probably also some substances that are unknown for this use. These should be investigated.

Now let us go back and look at the quality and profit of the farmer. The farmer plants his seed in the spring. During the year too much rain can lower the quality of the crop. Too little can cut down the yield. Rust can attack the crop. If he gets a good growth of durum, the straw will be so long that a wind storm may blow it over, thereby either ruining it or increasing the difficulty of harvesting. Hailstorms can knock it down. At harvest time, he cuts the durum wheat with a mower. If it rains or there is a heavy dew before the combine can come into the field to pick up the grain and thresh it, it may begin to germinate and sprout.

All of these things affect the profits of the farmer. He can reduce his risks

by good farming methods, by the use of dryers to dry the crop if it is harvested too wet, and by purchasing seed which will yield a durum which is less susceptible to rust, sprouting, wind damage and other difficulties.

New varieties of durum wheat are being developed largely at the North Dakota Agricultural College. The actual development of new varieties is being done by Kenneth Lebsock. The evaluation of the varieties is carried on by the Cereal Technology Department of North Dakota Agricultural College which is headed by Dr. Rae Harris.

Breeders Aim

Plant breeders aim primarily at increasing the yield of durum wheat and decreasing the risks of growing it. At the same time they give a great deal of attention to the quality of macaroni which can be made from the wheat. However, up until this time there has been too little contact between the plant breeders and the macaroni industry.

If we knew the physical and chemical properties which would prevent macaroni from breaking down when overcooked in a restaurant, hospital, or other institution, we could guide the plant breeders in developing a wheat which would make a superior product for the institutional trade. This same product would probably be satisfactory for canning and freezing.

It is probable that there will always be some durum of inferior quality grown each year. A durum with a very strong gluten might be too tough for use in the general run of macaroni products, but it could possibly be blended with some of the inferior grades to upgrade quality.

A more detailed and thorough understanding of the characteristics of durum which make for easy processing and good cooked macaroni quality should enable the durum breeders to develop strains of durum which are superior to Mindum - their standard.

We have just seen what details affect profit and quality. We now want to see what scientific work is being done and what more should be done.

The North Dakota Agricultural College has done very good work on the development of new durum varieties and the testing on a laboratory scale to determine their macaroni-making qualities. The U. S. Department of Agriculture in Beltsville, Maryland, under Dr. Fifield, has contributed to this work. The Canadian Grain Research Laboratory in Winnipeg has carried out very effective studies showing the factors which affect color of the finished product. The durum mills have done some research, but in general this has not been published in

journals and is not generally available. In Europe, a great deal of basic research has been done by Buhler and Braibanti and this work will undoubtedly bear fruit in coming years in new processes and equipment. The French alimentary paste industry has recently set up a coordinating laboratory to study varieties of durum wheat which can be grown in metropolitan France. It is rather obvious that their supplies of durum wheat from North Africa are not certain because of the dangerous political situation there. The French have also developed a test which will determine whether ordinary bread wheat has been mixed in with durum. This is the Matweef test which has been adopted into French law and on which they are continually working to increase reliability. Some of the macaroni manufacturers with control laboratories are getting into the field of basic research and we can expect interesting results from this.

More Research Needed

The amount of research which has been done on baking is much greater than the amount which has been devoted to macaroni-making. Therefore, we would like to have some of the basic scientists and cereal chemists in the universities and other institutions become interested in macaroni. To promote this, the Glenn G. Hoskins Company wrote an article for "Cereal Science Today" outlining the macaroni-making process in the hope that scientists would become more interested in macaroni as a means of studying the basic properties of wheat dough. We have been very gratified by the response from nutritionists and cereal scientists.

Our company has also felt the need for a pilot plant operation intermediate between the laboratory scale equipment which will make one or two strands of macaroni and the plant equipment which makes a thousand pounds per hour. In line with this, we have built a pilot plant with a 50-pound-per-hour semi-continuous press and a precisely controlled dryer which can operate at temperatures ranging between room temperature and 180°F. In this laboratory we have started to investigate various additives which may improve the physical and nutritional properties of macaroni. We also hope to test some of the new varieties of durum wheat such as Yuma and a Canadian development which is a cross between rye and durum wheat. As the various research projects proceed, we hope to get into further basic research on drying and extrusion patterns.

Continued on Page 22

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What We Have Gained From Our Testing Program

Rita May Tharinger, Tharinger Macaroni Company

There are a few hurdles to overcome when setting up a laboratory. A laboratory should be set up in a quiet section of the plant because some of the instruments used in it are very delicate and may easily be affected by vibrations. Natural light should be available, or good artificial lighting should be furnished.

The personnel problem is not a large one. A careful worker may be trained to run most of the routine tests. After the laboratory is equipped and the tests which you plan to run are set up, the operation of the lab is a relatively simple matter.

Let us look to see what we are gaining from our laboratory. Let us suppose we are equipped to make color and solids tests on eggs, filth, sifting and moisture tests on flour and semolina, cooking tests on our finished products.

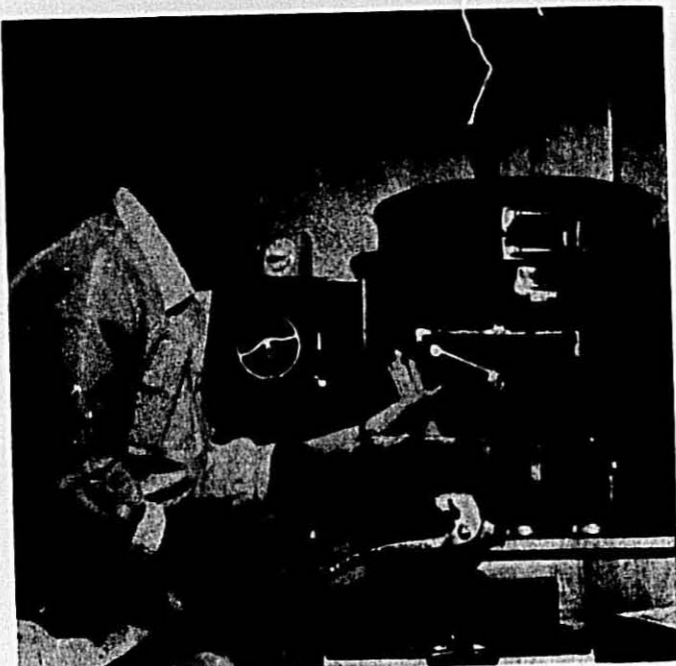
The purchasing agent usually buys eggs according to color and solids. Color is important in order to give finished noodles a deep color. Solids are important because we must have 5-1/2% egg solids in our finished products. It is easy to print these specifications on a contract or purchase order, but what assurance do we have that they are being filled on delivery of the shipment. To stir the yolks well and then take a small amount out of the can and try to determine the color is practically impossible as the color changes as the light changes. It is also quite impossible for anyone to look at the yolks in the can and decide if they are 44% or 45% solids.

The purchasing agent is also assisted in buying the farinaceous material for the plant. In order to determine whether they are receiving the semolina they ordered, the sifting test may be made to determine the percentage of flour in the product.

The plant superintendent may do an excellent job of supervising the cleaning of equipment only to find that he is introducing filth into the manufacturing equipment through the use of dirty raw materials. The lab would check the farinaceous material when it was received and reject it if it contained foreign matter.

The superintendent and press operators are aided by the lab because they know what to expect from the raw materials being used.

Moisture testing is of great value to the personnel in the plant. Checks should be made at regular intervals to



RITA MAY THARINGER IN THE LABORATORY.

assure us that the dryers are operating as expected. If a few minutes or hours can be cut from the drying time, it is important that the superintendent and other plant personnel in charge of production be made aware of that fact. By making moisture tests, this is possible.

The use of a micrometer in the lab may save the plant personnel many headaches. By setting up a minimum and maximum standard for each product manufactured, the problems of making satisfactory products consistently are greatly reduced.

The sales force, too, is assured of a uniform product because of the tests

John Linstroth, The Creamette Company

"Do we know if we are getting top grade raw materials for our manufacturing processes?" asked the late Mr. J. T. Williams, Sr., back in 1946. The answer was simple. We needed a products control laboratory. But to bring such a laboratory into existence presented many problems, and a great deal of thought and expense.

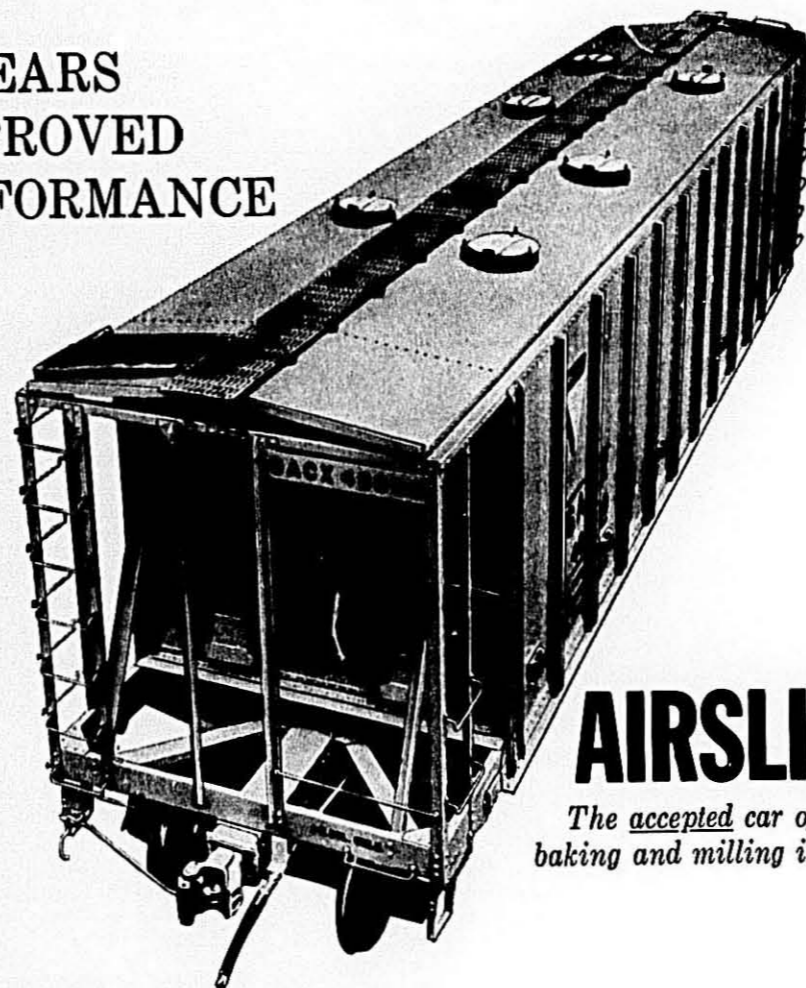
We started in a very small way, making weight tests, moisture tests, protein tests, granulation and grit

made on the raw materials and the product through the various stages of manufacture.

Last, but not least, the homemaker enjoys the benefits of a well-equipped lab. She expects the same results each time she buys the product and she can be assured of obtaining it if the product is laboratory controlled. The homemaker is perhaps the most important person on our list to satisfy. She expects and deserves the finest product we can give her each time she purchases it. We had better be certain that we do keep her satisfied or the rest of us may cease to have employment

count tests, etc. These were all basic examinations but they were important. Grit was a real headache to us because of our thin-wall, and we believe that our insistence on a low grit count from the mills, resulted in all of the mills installing new cleaning equipment and thereby the entire macaroni industry profited by this change. The average grit count in a 100 gram sample of semolina a few years ago was .032. Today the average is .009 or less.

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Chief among the tests our products undergo is bacteria testing. This is especially important in our frozen foods. Unlike macaroni which has only one ingredient, our frozen products with their multiple ingredients, and by the very nature of these ingredients, must be closely guarded and manufactured under rigid controls in order to maintain top quality.

We are now also devising new tests for semolina, such as; diastatic activity and lipoxidase activity in flour. Both of these are new and we haven't pro-

gressed very far with them as yet. The diastatic determination will tell us the amount of maltose or sugar present in semolina. The lipoxidase determination has to do with the yellow pigment in semolina. Lipoxidase is an enzyme which destroys this yellow pigment.

I believe that our industry has come a long way during the past few years, in that we are no longer just "makers of macaroni," but that we are now manufacturing food products which are being tested and proven scientifically.

**Mayme Rogan,
Grocery Store Products Company**

Our lab originated way back in 1926. Uppermost in our minds is quality. One of our many duties is to analyze all flour received for granulation, moisture, protein, ash, color, bran specks, etc. Egg yolk is tested for solids, color and cleanliness.

We run continuous moistures daily. Most of these tests are taken with the Cenco tester which we recommend highly. We also use a Universal moisture tester. We have an electric oven which is used in calibrating our mois-

ture testers. It is also used for egg tests. For the ash test we use a Hoskins muffle furnace. Color of egg yolk is determined by using a Cenco photometer. Another of our worthwhile tests is the cooking test. It involves checking the dies, correct wall thickness of various products and proper cooking time.

We know from our many years of experience that our lab has paid for itself many times over and has greatly improved the quality of our products.

At the end of the seminar, samples from the companies in the area showing the various types of macaroni and noodle products available were distributed. Staff and students called for a repeat performance in the near future.

Macaroni Seminar

A panel of macaroni manufacturers, semolina suppliers, and equipment people presented a three-hour program to the engineering students of Professor Siegfried Lichtblau, of the Food Technology Department of the City College of New York.

James J. Winston, director of research of the National Macaroni Manufacturers Association, served as moderator.

Subject matter included: durum wheat and its history; the characteristics of durum and its differentiating features from bread wheat; the process of wheat growing, storage and milling; the attributes of the farinaceous ingredients used in macaroni-noodle manufacture; and tests used for quality determination; sanitary precautions taken at the mill and manufacture levels; reference to Standards of Identity governing the manufacture of macaroni products.

In the discussion on manufacture and drying processes the following people participated: Nat Bontempi of De Francis Machine Corporation; Rudy Schenk of Buhler Brothers, Inc.; Daniel Maldari of the Maldari Die Company; David Wilson of King Midas Flour Mills; William Horowitz of Horowitz-Margaret Company; Mario Piazzola of V. La Rosa and Sons, Inc.; Gene Hubbard of T. J. Lipton, Inc.

Nutritional aspects of macaroni and noodle products were discussed.

**Research and Development
Continued from Page 18**

A basic understanding of the physical and chemical characteristics of the various raw materials from which macaroni can be made is necessary. Adequate research has gone into the problem of color in macaroni products, but a great deal remains to be known about the plastic and elastic properties which affect stickiness, stretching in the preliminary dryer, disintegration upon cooking, and a mushy product when overcooked. We are therefore currently obtaining samples of raw material and the finished macaroni product made from that raw material and subjecting these products to exhaustive physical and chemical tests to determine what properties are important in yielding a good, cooked product and which products process most easily in the factory.

Swiss School

Independent courses for studying present-time problems of the macaroni industry are being conducted at St. Gallen. The generous facilities of instruction, laboratory equipment and machines of normal size at the Swiss Milling School make such courses possible parallel to the Milling curriculum.

After several weeks of training, the second of such classes just finished recently. All participants took time off from their jobs. Heading the Macaroni School are Dr. Ch. Hummel and Dr. E. Ziegler.

The photograph shows the class together with the students of the Milling School. The next course for people of the macaroni industry is scheduled for fall 1959 and will be held in French language. The Milling School starts its 3rd year on September 7, 1959 with classes as usual in German. In the interest of individual teaching the number of students will be limited to about 20 - 25.

Swiss Convention

Louis Capol, Executive Secretary of the Association of Swiss Macaroni Manufacturers, reports their annual convention was held in La Perla, Agno-Lugano, "a sunny corner in the Swiss California", in April.

In addition to usual business sessions, the Swiss met with a German delegation.



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Desirable Quality Characteristics in Durum

by R. H. Harris, L. D. Sibbitt, and D. H. Classon

Quality is becoming more important in all plant breeding programs. It is perhaps more true for wheat and barley than for some other crops because of rather rigid quality specifications. Our laboratory at the North Dakota Agricultural Experiment Station is concerned with these crops and their components, such as starch and proteins which have a very important relation to their quality.

The protein content of both bread and durum types of wheat has been an important criterion of quality for a long time. It is of more concern in bread wheats than in durum because there seems to be a rather large range of protein content which can exist in durum wheat without an appreciable effect on processing properties. For bread wheats, however, the variation in protein quantity is more important and if it falls below a certain value trouble usually follows in the bakery.

Protein Quality

The quality or physical properties of the protein are more important than the quantity since they greatly affect the processing reactions of the semolina doughs. Very marked differences are found between durum varieties in mixing requirements and in the extension characteristics of the dough. These differences must be tied up with variations in processing behavior, although we have not been able to definitely pinpoint them in experimental macaroni processing. Environmental conditions during seasonal growth also affect the physical dough properties of all wheats.

From the farinogram a tentative absorption of the semolina dough for macaroni processing can be ascertained in the following manner.

Farinograms are produced from semolina and water, with the absorption adjusted so that the upper portion of the curve peak touches the 500 unit line. This Brabender absorption percent figure that is obtained is divided by two which gives in turn a percentage absorption figure which would yield a dough of approximately one-half the consistency of that produced in the farinograph. This figure is multiplied by the number of grams used in the batch mix and represents the tentative amount of water (cc) required to produce a dough of proper consistency for experimental macaroni processing. This is a relatively good indication of processing absorption but is not a definite figure, and may in some instances have to be adjusted according to the operator's judgment.



R. H. HARRIS stands on left, L. D. SIBBITT right.

Extensograms

The procedure used for obtaining extensograms on durum semolina is as follows: A new type National dough mixer is used for mixing the semolina-water-salt doughs. A variable mixing time and absorption is used, in accordance with the type of farinogram previously obtained on the semolina. After mixing, the doughs are sealed to 150 grams (due to the low absorption of semolina it is necessary to increase the original weight of the semolina samples by 10%). The dough is then transferred to the rounder and rotated for twenty revolutions. It is imperative that the hard red spring "pressure plate" in the extensograph moulder be replaced by a durum plate which is considerably thinner and therefore produces properly shaped doughs. After rounding the doughs are removed and placed in the moulder. The elongated doughs from the moulder are put into the saddles and stretched immediately without any rest period. Measurements made on the curve tracings are length and height. Curve height is the more important measurement as it indicates a soft or a tough type of gluten.

Yield per acre and test weight per bushel are important to the farmer, as well as disease resistance, and other characteristics which affect harvesting, etc. It is very difficult to persuade a farmer to grow a variety which is inferior in these factors since they are reflected in financial returns per acre. Test weight is important because it is a principal factor in grading. It is directly correlated with yield of flour or semolina and is of interest to mill-

ers. Low test wheat usually means thinner kernels with more bran and less endosperm. Light wheat usually requires more power for milling since closer grinding will have to be practiced.

Semolina Yield

Semolina yield represents the potential yielding capacity of a wheat and is directly related to profit since semolina and flour sell at a higher price than feed. It is one of the factors we consider when evaluating a new variety. Purified semolina may be somewhat more valuable than unpurified because this is the material used for experimental macaroni processing. The color and speck count are quite important and the latter is carefully examined and rated against standard varieties, such as Mindum.

Ash content of semolina is not as important as for flour, but is always determined in our laboratory. A high ash content would presumably indicate difficulty in milling and would be a fault, indicating some milling abnormality in the variety.

Absorption is the amount of water required to produce a stiff dough suitable for the mixing and processing of macaroni. A stiff dough does not process satisfactorily, at least in our laboratory, while a softer than normal dough might stretch and fall from the rods while drying.

Color of the macaroni would also be affected. Absorption will vary to some extent with the type of material used for processing. A tentative absorption is pre-determined by the farinograph

before mixing the dough for processing instead of using as an indication of absorption the plasticity of the dough as obtained at the mixer. This new method offers some advantages over the alternative procedure and has proved helpful in furnishing an objective value.

Macaroni color score is assessed by visual examination of the samples under uniform lighting. Accepted standards are included for comparison with new wheats being tested for acceptability.

Cooking Tests

Cooking tests seem to be becoming more important again. Our laboratory has had two periods of activity in cooking experimentally processed macaroni. Between these we did little in determining the relative cooking properties of our varieties, but the development of new durum varieties of widely different parentage to obtain rust resistance led us to re-examine potential cooking properties.

Our determinations are concerned with three factors - increase in weight after cooking, degree of disintegration and tenderness. We cook 25 g. of dried macaroni broken into 7 cm. lengths, for 30 minutes with 250 ml. of distilled water. The water is drained off for 10 minutes, and the residual macaroni washed. Drainings and washings are evaporated to dryness and the residue determined. The drained macaroni is weighed for cooked weight.

Five representative strands of the cooked material are taken for the tenderness test. Essentially this test measures the pressure required to collapse the tube of cooked macaroni, the pressure being supplied by addition of mercury to a flask connected to a disk which in turn exerts pressure on the strand of macaroni until it collapses. A tenderness score is then calculated from a curve traced by the tester. Since no definite values for tenderness are known, we assess the results against standard readings taken on accepted standard varieties.

Differences in Varieties

The physical dough properties of durum varieties are becoming more important with the increase in automatic macaroni processing in industry. Weak, sticky doughs are not desirable,

Variety	Yield Bushels Per Acre	Test Weight lbs./bu.	Approx. Vitreous Kernels %	Protein		Semolina Yield		Ash Content %	Semolina Specks Per 10 sq. in.	Absorption %
				Wheat %	Semolina %	Unpurified %	Purified %			
Langdon	37.9	61.7	88	13.7	12.6	72.5	58.2	0.60	34	28.0
Sentry	32.6	61.3	86	14.2	13.2	70.9	56.3	0.61	46	28.1
Ramsey	36.2	62.2	90	13.5	12.6	72.6	58.0	0.64	32	28.0
Mindum	27.1	59.8	87	12.2	11.4	68.2	54.5	0.64	26	28.4
Vernum	30.5	60.6	87	13.6	12.6	69.3	55.4	0.62	39	28.6
Yuma	32.7	60.1	91	14.6	13.4	71.4	57.0	0.61	16	28.8
Towner	31.9	63.0	92	13.7	12.6	70.8	55.1	0.59	30	28.3

and future breeding programs are planned to develop stronger gluten characteristics. Gluten properties can be determined in several ways, such as separating the gluten from the starch in semolina by "washing" and then examining its elasticity and ability to stretch. Or chemical treatment may be used to detect the swelling or absorption of water by different wheat glutes. However, use of standardized and largely automatic apparatus for testing gluten quality through measurement of the physical properties of dough offers some distinct advantages.

Several chemists connected with the durum processing industry have observed that Yuma has a short and tough gluten which is not quite as satisfactory as the other varieties for the production of long goods. It may be very suitable for canning, however. Sentry gluten tends to be slightly sticky, but this variety has been well accepted by industry.

Langdon Best

From the overall quality standpoint Langdon appears to be the best durum variety. While Sentry is equal in macaroni color it does not have as satisfactory semolina dough properties as Langdon. Yuma is probably the least satisfactory in quality of the seven varieties discussed in this report.

Variations in cooked weight among the varieties show Sentry had the highest cooked weight, while Ramsey and Mindum had exactly the same. Yuma had the lowest weight in spite of its known strong gluten. It was somewhat below Langdon, which apparently has much weaker gluten, resembling the older durum varieties. High cooked weight is desirable because it is evidence of good water absorption during cooking. Cooking loss as determined by residue is largely caused by starch solubilization while the macaroni is being cooked. A small loss means that more of the macaroni remains in the cooked form.

Data indicates that environment has a marked influence on the quality of durum wheat. In many cases it overshadows that of variety for accepted wheats. However, in the instance of poor quality wheats the effect of the variety will be the greatest. In other words, a really poor quality wheat will still be deficient in quality wherever

it is grown. This fact is generally recognized in wheat quality testing and wheat utilization.

Typical differences in quality factors between durum varieties are tabulated below:

Crop Prospects

Prospective crop production for 1959 was much less favorable on May 1 than the previous year. The outlook closely resembled the situation reported on that date in 1955. Then a dry fall, a cold winter with light snowfall, and a windy, droughty spring dimmed the prospect for grain crops. It might be noted however that in 1955 discouraging factors almost identical to this year were substantially corrected in the May-June period, and the territory finally came through with above normal production. In light of this, poor conditions as of May 1 should not be the basis for alarm, but in order to be realistic it should be recognized that there is an urgent need for above normal rain during May and June and a need for favorable temperatures for early plant growth and a cessation of damaging winds.

Durum seeding got off to a slower start in 1959 than it did in 1958. Seeding actually started in late March with unusually warm weather quickly replaced by below freezing snaps. April brought temperatures that varied from freezing to almost one hundred degrees. But the greatest problem was the deficiency of subsoil moisture.

As of May 1, most of the durum seeding was completed except in the extreme northern section of the durum triangle in North Dakota. It was expected that this section would complete seeding by mid-May.

The U. S. Department of Agriculture estimates durum planting as of March 1 at 1,273,000 acres. Trade representatives in the field believe that the acreage should be slightly above this.

Macaroni for Vending Machines

The Howard Johnson restaurants went into something new in Miami, Florida. They constructed ice cream and frozen food vending machines, made by K. G. Brown Manufacturing Company, Mattituck, Long Island, New York, which give the same appearance as Howard Johnson's restaurants.

Among the items vended is frozen macaroni & cheese.

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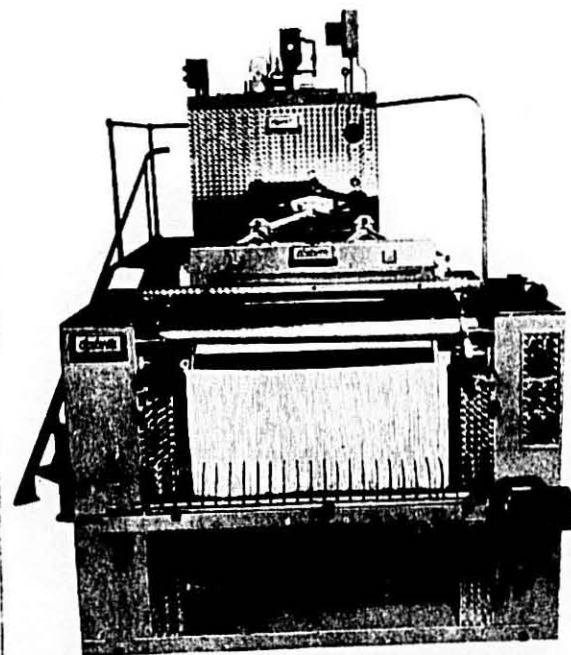
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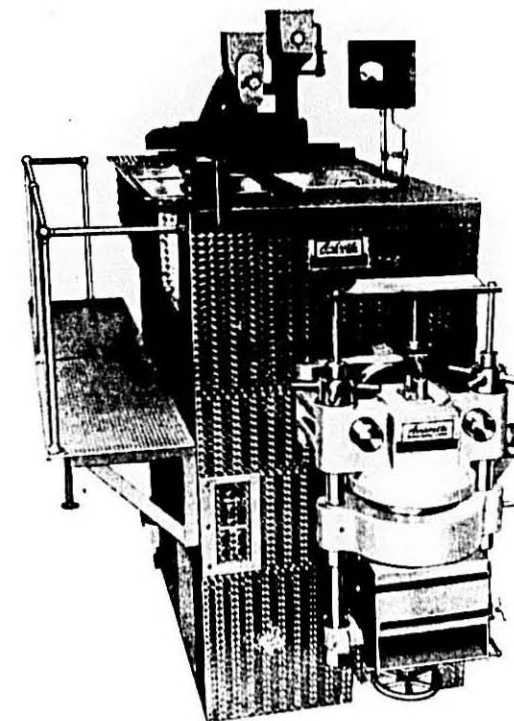
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Financial Policies - Their Importance to Production Men

by W. G. Hoskins, Glenn G. Hoskins Company

Everyone in a company has a stake in the financial affairs, because as each contributes to or detracts from profitable operations, he contributes to or detracts from his job security, his pay raises and possibilities of promotion.

People in management have a special responsibility in connection with finances, to conduct the affairs of their departments so as to contribute the greatest possible financial stability and soundness to the company.

Financial policies are usually set and administered by owners, presidents and comptrollers, but if you are none of these, it is still important to have an understanding of basic financial concepts. Such understanding can increase your value to your company.

Leadership Essential

In any endeavor, there has to be a leader who does the planning and directing and there have to be people who do the carrying out of the orders and plans. It has always been our theory that plans can be carried out more effectively by people who have an understanding of the whole structure within which they work.

A company functions to perform a service or make a product which has value on the market and for which the company gets paid. The idea is for the company to get enough more money for the product or service it sells than it costs to yield a profit. The business that makes a consistent, adequate profit over an extended period of time is a success. The business that cannot do this is a failure. The people who have money in business which does not make an adequate profit over a period of time should change their tactics or put their money into something else.

It is surprising that very often the management of businesses get so deeply involved in the competitive situation in their industry, and so concerned with the smaller problems of their businesses, that they do not run their businesses to make a profit really commensurate with the investment. There is a tendency, wherein the management does not hold "the big picture" in mind to be satisfied as long as the business pays the customary executive salaries and leaves a little profit at the end of the year. If price levels are set too close to costs in a succession of profitable years, the business still makes a small profit, but eventually the amount of that profit expressed as a percent of the total investment becomes so small that the



WILLIAM G. HOSKINS

particular business is no longer a desirable investment.

We believe this is what has actually happened in quite a number of macaroni manufacturing companies.

Conduct for Sale

There is one rule of management which, if adhered to rigidly, would result in a most successful operation. That rule is "conduct your business as if you were going to sell it."

Let us examine the factors that make a macaroni business attractive to others. Is it big volume? Is it the salaries it pays to its executives? Is it the low wage scale it enjoys? Is it the size of the marketing area it covers? Is it the amount and cleverness of its advertising? Is it cheap?

The real factors that a prospective purchaser would review are these:

1. History of Profits
2. Return on Investment
3. Security of market
4. Growth & growth potential
5. Ability of management & personnel
6. Attractiveness of physical plant

History of profits simply would mean that a desirable business investment would be one in which the profits were good over a period of years. But what is a good profit? Companies in the food business would consider a purchase of a business desirable if they had to pay for the business approximately eight times the earnings after taxes. In other words, if a company earned a profit after taxes of \$100,000, that business could probably be sold for \$800,000.

Return on investment is another way of saying the same thing. We have reason to believe that bigger companies looking at food companies as an investment would consider a business a good purchase if they could count on a return on their investment of 25% before taxes. As an example, a plant with five presses could make about 18 million pounds of macaroni products per year in a space of approximately 90,000 square feet. A plant that was not new would represent a total investment of about \$1,250,000. Rather, let us say that the value of the business would probably be about \$1,250,000. A good profit before taxes on this investment should, therefore, be close to \$300,000.

Market Franchise

The security of the market refers to the hold that your company has on the market. If you have a brand that has been established for many years, is well known and well advertised, your market is quite secure. If most of your company's production goes to a very limited number of private label accounts, your market is not secure. At least, it would probably not be considered secure by a prospective purchaser.

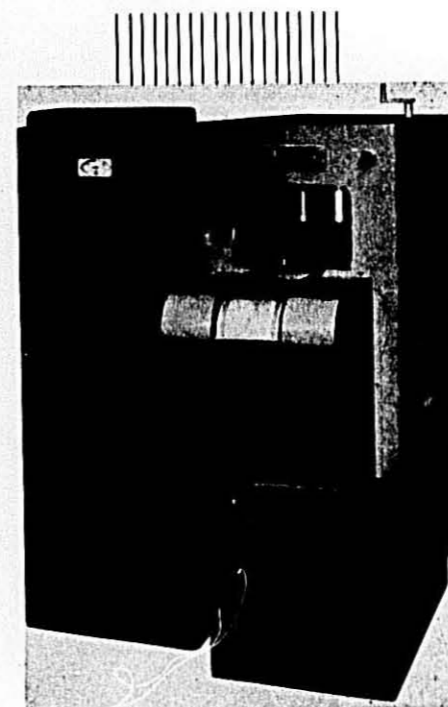
The growth history and the growth potential are measured by past performance and by future prospects for population growth and per capita consumption of the product you make.

The capabilities of management people in your organization are of primary importance to a prospective purchaser. If your business is successful, these are the people who have made it a success and who would continue to make it a success when the investment was in the hands of someone else. The attractiveness of the physical plant may not have very much to do with the earning power. However, an attractive physical plant conveys the impression of good management and stability.

The following criteria are set by Mr. J. J. Kaperna, Vice President of the First National Bank of Chicago. These are key factors to evaluate in conducting loan investigations.

1. Is the management honest?
2. Is the management capable?
3. Is there depth in management?
4. Is the trend in the particular locality and area good?
5. What is the trend in general conditions?

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6. Is working capital adequate to provide reasonable protection for creditors?
7. Is there sufficient net worth of the business in relation to the amount advanced by its creditors?
8. Are the employees unionized and, if so, what is the status of the union contracts?
9. Is adequate insurance in force to cover all phases of the business?
10. Is the plant in first-class condition and adequate for present and future contemplated expansion?
11. Is the machinery new and in fair condition, or old and obsolete?
12. Is the plant layout efficient to the point where maximum production can be reached at minimum cost?
13. Are there any contemplated expenditures for fixed assets, and if so, how will they be financed?
14. Does the company have an efficient cost system?
15. Is the advertising program in reasonable proportion to present and potential sales?
16. What is the backlog of all unfilled orders in relation to sales? Are purchase commitments ample and do they contain escalator clauses for price changes?
17. What is the company's productive capacity in relation to present volume and what is its sales potential?
18. Are the products in favorable comparison with competitors as to price, styling and consumer acceptance?
19. Do they have an adequate research and development program?

Maybe your company doesn't need a loan. Even so, it would be very valuable for management people to take a hard look at their companies from the view point of a banker and from that of a prospective purchaser to see how they measure up.

Plant and People

Production men are concerned principally with the proper direction and control of the physical plant and the people in the organization. They have little control over the competitive situation which sets the price, but have much influence in the making of a profit. One of the most important things for the production man is to know what the cost should be.

What cost factors should be taken into account when considering purchase of new machinery? New machinery purchases must be analyzed very carefully because it is easy to get yourself into a situation where the added costs more than offset any pos-

sible saving. You must remember when you purchase new machinery of any substantial size and value, that besides the savings you encounter in labor or materials, you are adding certain costs which must be taken into account. On the normal run of production or packaging machinery, it is estimated that the added costs are about 15% per year. You will lose about 10% in the value of the machinery (assuming obsolescence in 10 years) and the other 5% would be used up in additional maintenance, interest on the investment, taxes and insurance. Naturally, this figure would not apply to everything, but is a rule of thumb that should enter into your thinking about new machinery.

Over the past ten years or more, investment in machinery to save labor has been very sound investment. A machine that was installed six years ago to save labor is probably saving you 40 cents an hour more today than it was when it was put in due to the increased wage rates. In addition, even though there has been depreciation on the machine, the replacement value of the machine has increased substantially and so has its present value.

Inflation Continues

We have seen no strong indication yet that the inflationary trend is going to halt. Whether it does or not, however, investment in machinery and plant in a stable industry such as ours is going to continue to be good investment. Our Plant Operations Survey revealed that the total labor cost per pound for producing macaroni and noodles is about 1.5 cents per pound. The normal depreciation load being carried by most businesses amounts to about 1/3 of a cent per pound of goods produced. This is only about 20% of the labor cost.

If we apply this rate to a hypothetical plant producing 18 million pounds per year, we find that we would have a depreciation charge of \$60,000 per year. If we added another \$600,000 worth of labor-saving machinery to this hypothetical plant, we would only add 1/3 of a cent per pound to our total cost with a very good change of saving a substantial amount of labor.

The other side of the depreciation and equipment story, however, should be given careful consideration. It is sometimes extremely expensive to get rid of that last quarter of a man. There are generally quite a few ways to accomplish a given task in a factory and quite a variety of equipment that can be used. Very often, the machinery that is necessary to make an operation completely automatic is much more expensive than would be the case if certain manual operations were retained. It is quite possible to

lose more in depreciation, maintenance, taxes and insurance than you can gain by the elimination of that last quarter of a man's labor.

Plant Space

Another financial consideration that seems to enter most planning problems is plant space. Just how valuable is plant space? How much can you afford to spend on new equipment to save a square foot of plant space?

New buildings currently are costing somewhere around \$8.00 per square foot. The depreciated cost of this space on a 40-year basis would be 20 cents per square foot per year. Adding other factors such as interest on the investment, building maintenance, heat and light to this figure might bring the actual plant space cost up to 30 cents per square foot per year. This would mean that we could afford to spend about \$3300 for space-saving equipment for every 1,000 square feet of floor space saved.

How does the cost of electrical power compare with the cost for manual labor? A 1 horsepower motor costs about 2 cents per hour to operate. This means that a 100 horsepower motor would cost you no more to operate (for electric current) than the wages of a man. Properly applied 100 horsepower can do many times the work of a man.

Costs are, of course, the primary financial consideration of production men. A thorough knowledge and use of costs in your business can make your business the good investment you want it to be. Even if you have no money in the business, you are investing your time. Invest it wisely.

Chef-Boy-Ar-Dee Promotion

A nine-day trip for two to the Caribbean, and twenty phonographs, are offered retailers in connection with the Chef Boy-Ar-Dee Italian Food Festival by American Home Foods, New York City, reports Larry Sauers, vice president for sales.

Two 1959 Webcor Ravinia Stereo Fidelity Phonographs will be awarded in each of ten regions - one for the most effective display of 15 to 25 cases of Chef products; one for display of over 30 cases. The Caribbean trip grand prizes will be awarded for the top display among the regional winners in each category.

Special full-color spreads in the June 1 issue of Life and the June 20 issue of the Saturday Evening Post will begin the Italian Food Festival. Follow-up advertisements will appear in Life, Saturday Evening Post, Ladies Home Journal, Good Housekeeping, Better Homes & Gardens, True Story, True Confessions, Modern Romance, Seventeen, and local newspapers.

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the Queen of Bermuda*



Yes, "Mr. I" -- symbol of International Milling Company and its quality durum products -- hopes to see you aboard the Queen of Bermuda this month for the 55th annual meeting of the NMMA.

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We welcome these convention opportunities to mix business with pleasure, and to discuss, informally, our mutual industry problems and plans for the future.

See you aboard!

International
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Processed Eggs

Production of liquid egg and liquid egg products (ingredients added) during March totaled 78,273,000 pounds—up 131 percent from the relatively light production of 33,872,000 pounds in March last year and up 12 percent from the 1953-57 average for the month of 69,892,000 pounds. The quantities used for immediate consumption, freezing and drying were all larger than a year earlier.

Egg solids production during March totaled 4,576,000 pounds compared with 1,609,000 pounds in March 1958 and the 1953-1957 average of 2,661,000 pounds. The large increase over a year earlier continued to be in the production of whole egg solids produced under Government contract for use in the National School Lunch Program. Total production in March consisted of 2,655,000 pounds of whole egg solids, 1,095,000 pounds of albumen solids and 826,000 pounds of yolk solids. Production in March 1958 consisted of 357,000 pounds of whole egg solids, 603,000 pounds of albumen solids and 649,000 pounds of yolk solids.

Liquid egg frozen during March totaled 55,278,000 pounds, compared with the relatively light production of 26,703,000 pounds in March 1958 and the 1953-57 average of 56,378,000 pounds.

Frozen egg stocks increased 8 million pounds during March, compared with a decrease of 7 million pounds in March 1958 and the 1953-57 average increase of 25 million pounds.

Cash Eggs Decline

A new eighteen year low was established in the Chicago market in early May as large type cash eggs fell to 26 cents a dozen. At May 1 levels top quality eggs were off almost a dime since the start of the year. Buying for drying and frozen egg processing and for storage failed to stem the oversupply.

Year ago prices for shell eggs were also about a dime higher than present levels. Frozen whites, however, were bumping along as cheap as 8 cents a pound, a nickel under a year ago, and though frozen yolks used by noodle manufacturers are cheaper than a year ago they feel they must carry a disproportionate part of the price because of the lack of white demand.

Dried yolk solids were selling at May 1 at almost twenty cents under year ago levels at a range of \$1.08 to \$1.13.

Top-Selling Promotion

A macaroni dinner promotion won Kraft Products the rating as one of the Top-selling promotions in March, as reported by Family Weekly, Sunday supplement. The promotion was the theme of Kraft's Lenten push.

Government Egg Program

The Department of Agriculture has switched its egg buying program to a price support basis, dropping the purchase of eggs for the school lunch program.

Officials said the changeover would have no foreseeable effect on the volume of eggs being removed from the market by department buyers. In recent weeks, buying for school lunch supply has fluctuated between 600,000 and 1,000,000 pounds. This is about all the trade has been willing to supply, Federal egg men said, and future purchases will continue to depend on the amount of dried eggs offered.

Under the new program, dried eggs will be purchased with a fund accumulated from farm import tariffs. Buying will be an attempt to "stabilize and strengthen prices to producers," officials said. The eggs purchased under the program will be donated to welfare institutions and the needy.

Since last October, the department has purchased 12 million pounds of dried eggs for school lunch supply from a \$35 million fund earmarked for that purpose by Congress. About \$14 million has been spent on eggs alone, and purchases of other school lunch items have about exhausted the fund, officials said.

Canadian Durum Exports

The Statistics Branch of the Board of Grain Commissioners shows the following destinations for durum wheat exported from Canada:

	1957-58	1958-57
Western Germany	8,272,302	4,963,272
France	-0-	4,024,686
Switzerland	2,719,550	2,240,000
Belgium	682,106	115,725
United Kingdom	387,332	222,667
Austria	287,790	149,333
Netherlands	56,000	-0-
U.S.A.	43,615	-0-
Sweden	9,333	-0-
Italy	-0-	348,320
Totals	12,458,028	12,064,000*

Clearance of durum from eastern ports for destination overseas would indicate an upward trend this year, although the final export total for 1958-59 should not exceed 15 or 16 million bushels.

It is apparent from these figures that durum is a minor crop in comparison to the huge Canadian exports of Northern wheat. It is obvious, too, that Italy is not a big customer. Nor has she been for some years. She, like many a European country, is trying to become self-sufficient in wheat. France has relied on North Africa for durum in the past but she is finding it difficult to secure adequate supplies. Canada stands a chance of retaining France as a customer for some years.

Cereal Chemists Moving

Announcement that the American Association of Cereal Chemists will move into new headquarters in St. Paul, Minnesota on June 1, and will expand membership rolls highlighted the address by Clinton L. Brooke, A.A.C.C. president, in opening the recent 44th annual meeting of the association in Washington, D. C.

Mr. Brooke, who is enrichment products manager for Merck & Co., Inc., Chemical Division, Rahway, N. J., characterized cereal chemists as "custodians of the quality and uniformity of the foods that form the basis of the diet of the great majority of mankind."

"The A.A.C.C. must broaden its scope," he said, "for many cereal chemists have interests in fields other than in milling and baking." This he expanded by including, as potential members of the A.A.C.C., chemists in the laboratories of manufacturers of feed and feed supplements, in state fed control laboratories, in government laboratories, and in commercial laboratories concerned with feed analysis.

Cellophane Hike

Dobackmum Co., a division of Dow Chemical Co., announced an increase of 3 cents a pound in the price of printed cellophane used in packaging.

The company said it is the first converter to raise prices. A converter takes materials, such as cellophane, and prints or otherwise prepared them for use in packaging.

Ennis P. Whitley, distribution vice president, said, "Since 1952 wages and salaries have increased 21%. Cellophane prices have increased 6%." In the same period converted cellophane prices have "declined to the lowest point in history — 28% below 1952 levels," he said.

He explained that while the spread between costs and profits has been declining, producers of flexible packaging materials must furnish a high degree of skill in designing, market research, technical and related services. He pointed out that cellophane is the most of converted packaging materials to undergo a current price increase and said it is natural to assume that prices on other such products may also have to be increased.

Western Representative

Lehara Corporation with general offices in New York City, has been appointed general representative for all of the United States and Canada for Dott. Ingg. M. & G. Braibanti & Company, Italy, manufacturers of automatic macaroni equipment.

Lehara was formerly eastern zone representative.



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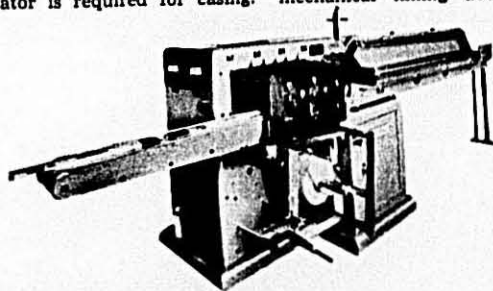
See You at the 55th Annual Meeting of the National Macaroni Manufacturers Association.

Automatic Long Goods Packaging

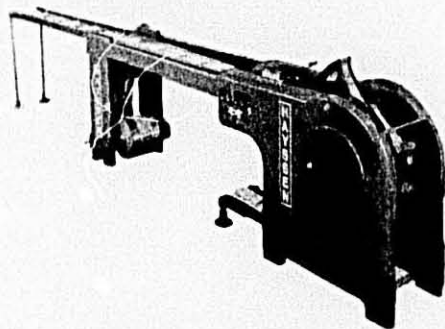
Packaging machinery manufacturers in greater numbers than ever before are trying to solve the problem of packaging spaghetti, according to a report at the recent Hoskins Plant Operations Forum. Here is a brief description of the operation of some of the machines now under development.

Hudson-Sharp. The Hudson-Sharp Division of Food Machinery & Chemical Co., Green Bay, Wisconsin has adapted a standard cellophane wrapping machine to the packaging of spaghetti and macaroni in 10 and 20 inch lengths. Usable with cellophane, poly-cel, and possibly polyethylene, the Hudson-Sharp Campbell Wrapper wraps a film around the product and seals the ends. It is a horizontal machine. Film is fed from underneath the machine onto a conveyor which carries the film horizontally forward. The product is guided onto the film and then a mandril forms the film around the product and makes a fin seal on the back of the package. Ends are cut and sealed simultaneously, forming a pillow-type bag. Production rate is 40-60 packages per minute. A special conveyor has been developed by Hudson-Sharp to feed the product into the machine, either in 10 or 20 inch lengths. A semi-circular trough is aligned with the machine. A chain conveyor has semi-circular wipers which move down the length of the conveying trough, pushing weighed amounts of spaghetti toward the packaging machine. Wipers are spaced at about 12 inch intervals (or 24 inch intervals when Italian style is packed).

Personnel required to operate the machine would include three or four weighers, depending on the operating rate of the machine. These girls weigh the material into scale buckets and transfer from the scale buckets into the conveyor trough. Another girl is required at the point where the goods are transferred onto the film to line the goods up properly. At least one more operator is required for casing.



ROTO WRAP MODEL "B"



HAYSSEN MACHINE

Hayssen Manufacturing Company. The Hayssen Company in Sheboygan, Wisconsin is developing a machine similar to the Hudson-Sharp with production rates about the same. The pilot model of this unit, called the "RT" Packaging Machine, is supposed to be about completed at this time.

Material is weighed onto a conveyor. As the product is pulled toward the back sealer, the film is naturally folded over the product. It passes under a back sealing iron. Height of package is adjusted with a finger wheel that raises or lowers the back sealing bars. After completing the back sealing operation, the product moves onto the end sealing bars which are positioned on a constantly rotating drum. The jaws seal the bottom of the first package and top of the second package in one operation. The package is held in the sealing jaws and follows the drum to the discharge conveyor where it is released.

Upon completing the sealing cycle, the jaws accumulate in an open position along the rotating drum. Each set of jaws wait for their turn to resume their sealing operation. The drum slips by the resting jaws. Upon a signal from the electric eye control or the mechanical timing device, a set of

sealing jaws is released. As the drum moves, the upper jaw is cammed down over the lower jaw sealing and cutting at the same time.

Roto Wrap Division of Conspac Corporation is plant-testing a machine for long goods in cellophane in a macaroni factory at the present time. The Roto Wrap is also basically a wrapping machine and employs two films. One film is fed onto a horizontal conveyor from the bottom and the second film comes down from above. Spaghetti in either 10 inch or 20 inch length is weighed and placed by hand on a conveyor which carries the material onto the bottom film. The top film covers the product and the edges of the two films are sealed as the product and the package move through the sealer. The finished package has a fin seal on all four sides and can carry printing on both faces. Production rates are similar to the Hudson-Sharp.

Lynch, Robo-Wrap Corporation is in the process of developing a self-unloading scale for long goods. The theory behind this device is that one weigher with two scales which are self-unloading will be able to maintain a weighing rate of 20 to 24 per minute as compared with the 10 to 12 weighings per minute ordinarily encountered when the weigher has to take the weighed product off her scale and insert it into some type of packaging machine or conveyor.

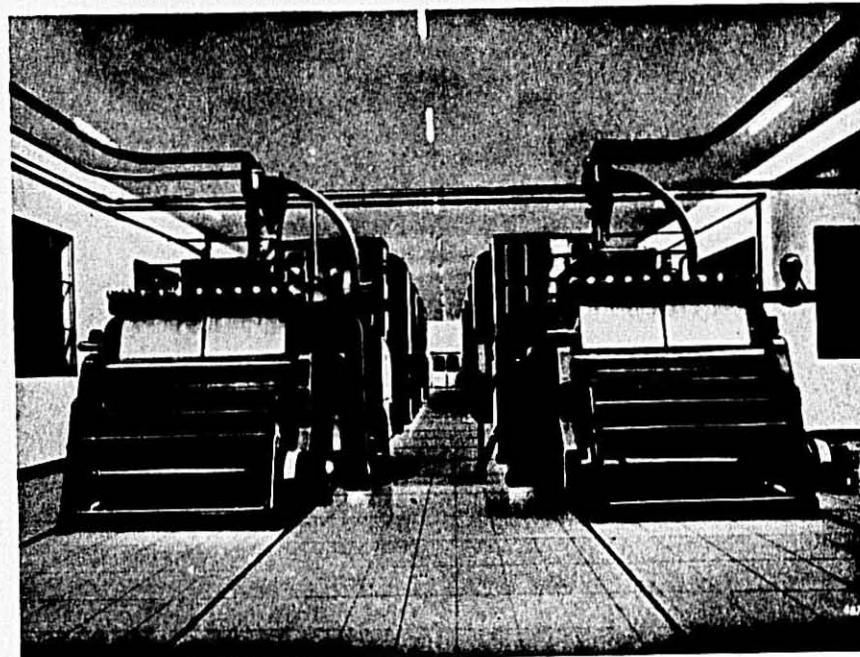
The Lynch device is a pneumatically operated mechanical hand. After the scale is up to weight, the activating mechanism causes the arm to come forward, pick the material gently out of the scale trough, retract and turn the product either horizontally or vertically, as required, to deposit the weighed amount into a conveyor. It is expected that this device may be

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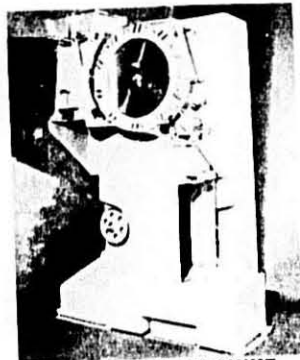
Braibanti

adapted for use with packaging machines handling either cartons or cellophane. The self-unloading scale is in the factory development stage at the moment and may be tried in a plant within the next two or three months.

Farrington Machines. Also under development is the Farrington-Thomson automatic net weigher for long goods. Manufacturers of this machine are aiming at a rate of 60 pounds per minute per unit. Plans are underway to adapt the weigher to the Clyburn and Redington.

The Farrington machine is partially volumetric in action. A drum passes under a hopper containing spaghetti cut to length. Grooves in the drum pick up a quantity of material slightly under the required amount. Goods are dropped into a very fast operating scale which measures how far the individual charge is off the correct weight. The automatic control device on the scale then causes a volumetrically measured quantity to be added to bring the product to correct weight. A model of the Farrington has been in existence for quite some time and is presently undergoing plant testing.

Fr. Hesser. in Stuttgart, Germany for several years have had a machine for packaging spaghetti in cartons and cellophane. This machine was formerly semi-automatic in the sense that operators would weigh material into self-dumping scales which then transferred the weighed amounts into buckets on a conveyor. Hesser has built several machines with automatic weighers. These machines are undergoing plant-testing in Europe at the present time. None is installed in the United States.

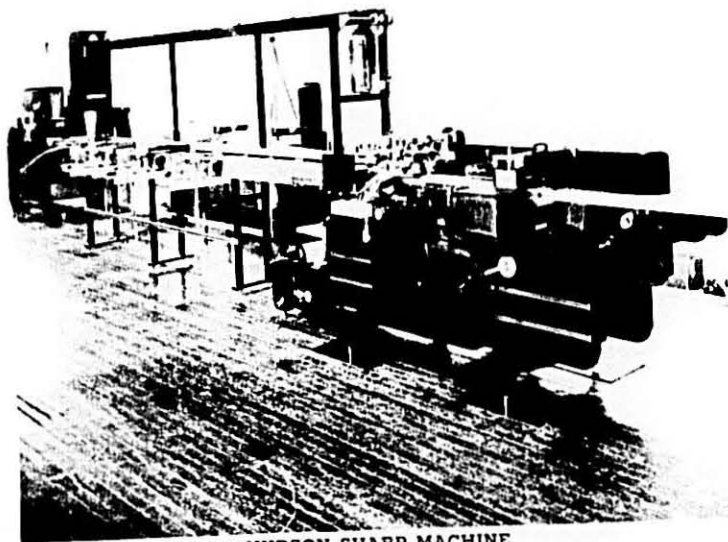


FARRINGTON MACHINE

Hoffiger & Karg. It is claimed that 20 or 25 machines for automatically weighing long goods have been built and installed by Hoffiger & Karg Company, located near Stuttgart, Germany. The weighing principle on the Hoffiger & Karg is that a bulk weigher weighs the product to nearly the correct



Packaging Show Visitors. Included left to right are Robert Borrelli, Fresno Macaroni Company; Evans Thomas, North Dakota Mill & Elevator; and Albert Bono, Jr., of the John B. Canepa Company.



HUDSON SHARP MACHINE

weight and then dumps the charge into a second scale having a dribble feed. The bulk scale is above the dribble scale. The dribble feed brings the charge up to correct weight and the material is dropped into containers or buckets.

At the Packaging Show

The most recent innovations and the most significant trends in the \$15-billion-a-year packaging industry were spotlighted at the American Management Association's 28th National Packaging Exposition and Conference held in Chicago in April.

A 5 per cent increase in the use of packaging materials, equipment and services in 1959 over 1958 is forecast by C. L. Rumberger, vice president research and quality control, H. J. Heinz Company, Pittsburgh, Pa., who is vice president in charge of the American Management Association's packaging division. His estimate is based on the following: United States Department of Commerce predictions of increases this year over last year: consumption of representative packaging components: glass containers, 3 per cent; metal containers, 2 to 5 per cent; aluminum foil, more than 10 per cent; fibre boxes, 3 per cent; and folding cartons, about 3 per cent.

Packaging trends according to Rumberger, include more emphasis on plastics and aluminum foil, lighter but stronger fibre and corrugated boxes, more use of combinations of materials and increased stress on packaging materials that will both improve product protection and enhance salability.

Making proper use of the various improved materials now being available by suppliers presents a challenge to the best scientific management in industry today. Mr. Rumberger points out. Although packaging is a science so far as materials and their over-all usage are concerned, it becomes an engineering problem when applied to finished products. Every division of industrial enterprise—including manufacturing, finance, advertising, and quality control—must contribute to the packaging of finished products, whether new or established. Only top management can coordinate those efforts effectively.

Cost is another reason noted by Rumberger for top executives' increasing concern with packaging. The cost of packaging materials—and of increasing consumer sales appeal in the package—is of utmost importance to the producer, particularly of consumer goods, he points out. Finding the package for transporting the product to the consumer in satisfactory condition at lowest cost becomes top management's responsibility.

At The Packaging Show



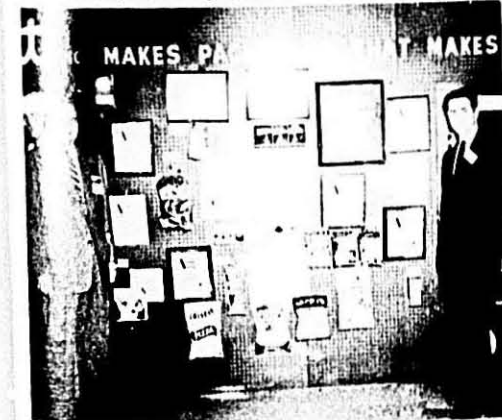
Miriam Morris, Sales Promotion Manager of Rossotti Lithographing Corporation, presented Packaging Show visitors with a Rossotti Appointment Book.



Frank Prime and John Swan of Rossotti Lithographing Corporation show an assortment of macaroni cartons on display at the Packaging Show.



Dummun representatives gather around "Poly." Left to right are Jim Foy, Sam Zutler, George Waldeisen, Bill Kinter, Dick Seigle, and Robert Stump.



Roy Lundberg (left) and Stan Winkel of Milprint stand by Award Winning Packaging that Makes Sales.



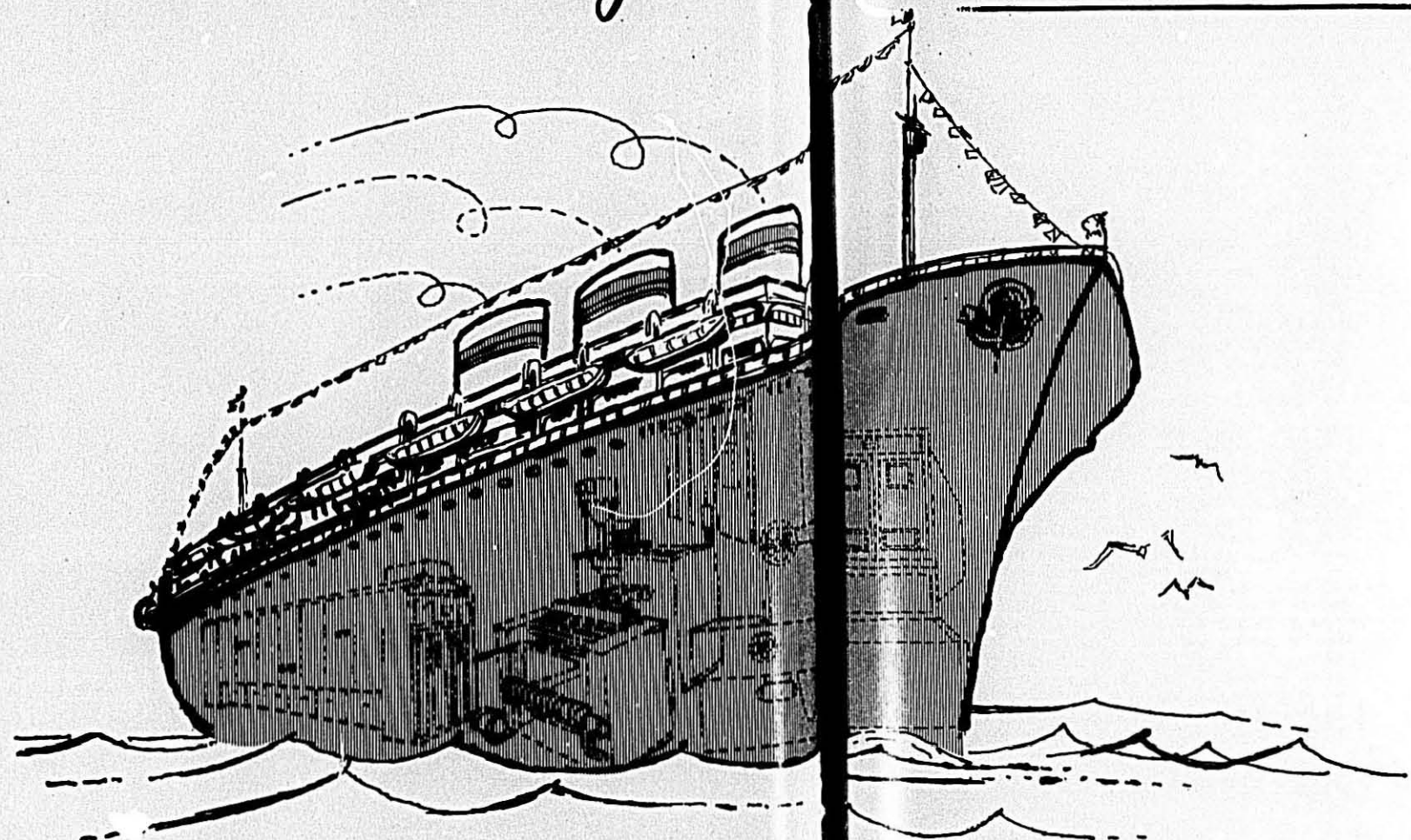
John Johnston of Doughboy Industries, Inc., New Richmond, Wisconsin, demonstrates heat sealing enclosures on a cellophane noodle package.



Doug Grant, The United States Printing and Lithographing Company, displays some prize-winning macaroni products packaging.

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VINCENT P. LA ROSA

Midwest Marketing Man

Vincent P. La Rosa, vice president, has been appointed Mid-Western sales manager for V. La Rosa & Sons, Inc., manufacturers of one of America's largest selling brands of spaghetti and macaroni products, it was announced by Peter La Rosa, president. He will continue as director of sales in the Middle Atlantic region.

According to Peter La Rosa, "The steady sales growth of spaghetti and macaroni products has led to our expansion in Mid-Western marketing areas."

In his new assignment, V. P. La Rosa will direct his company's marketing activities in the states of Illinois, Indiana, Minnesota, Ohio and Wisconsin.

Mr. La Rosa's career in the macaroni industry spans more than a decade. A grandson of the company's founder, he joined the family owned and operated business after graduation from the Wharton School of Finance and Commerce at the University of Pennsylvania.

Mr. La Rosa and his family reside in Rydal, Pa.

New Plant for Grass Noodle Company

The I. J. Grass Noodle Company of Chicago, manufacturers of the nationally known brand of Mrs. Grass Soups and Egg Noodles, have announced plans for the construction of a new factory. An estimated half million dollars is being spent on the project.

Sidney Grass, Vice President of the I. J. Grass Noodle Company and Chairman of the Building Committee, stated, "The site at 3737 West 49th Street has been purchased, and the architect's plans are completed. January 1st, 1960, is our target date for completion. At that time we will move our entire operation from the present location at 6027 South Wentworth into the new plant."

"This is the latest step in fifty years of growth by a company which started as a neighborhood delicatessen on Chicago's South Side. Groundbreaking ceremonies were held on Mothers' Day, May 10th, at 3:00 in the afternoon. We chose this date in the memory of the original Mrs. Grass, who founded the business in 1909 and was active in it until she passed away in 1953."

Principal reasons for the I. J. Grass Noodle Company move are the development of new products and a sales increase of 70% during the past 5 years. More work space and expanded production facilities to be installed in the new plant will enable the company to increase its present output by 50%.

The new site has a railroad siding and covers an area of 93,500 square feet. Designed by architects I. M. Karlin & Associates, the building will occupy 33,000 square feet. It will provide roomy and attractive facilities for employees, a modern quality control laboratory and loading docks for truck and railway transportation.



ANTHONY L. DE PASQUALE

International Promotions

The International Milling Company has promoted Anthony L. DePasquale from New York sales manager - durum division to U. S. sales manager - durum division, at Minneapolis.

Mr. DePasquale was born and educated in Rochester, New York. He began working for International in 1944 as a bakery flour salesman.

In 1952 he became bakery flour district sales manager at New York and in 1955 he became New York sales manager for the durum division.

Pierce U. Wheatley, presently assistant to the general manager for durum in Minneapolis, has been promoted and transferred to Buffalo, New York, as assistant to the production manager.

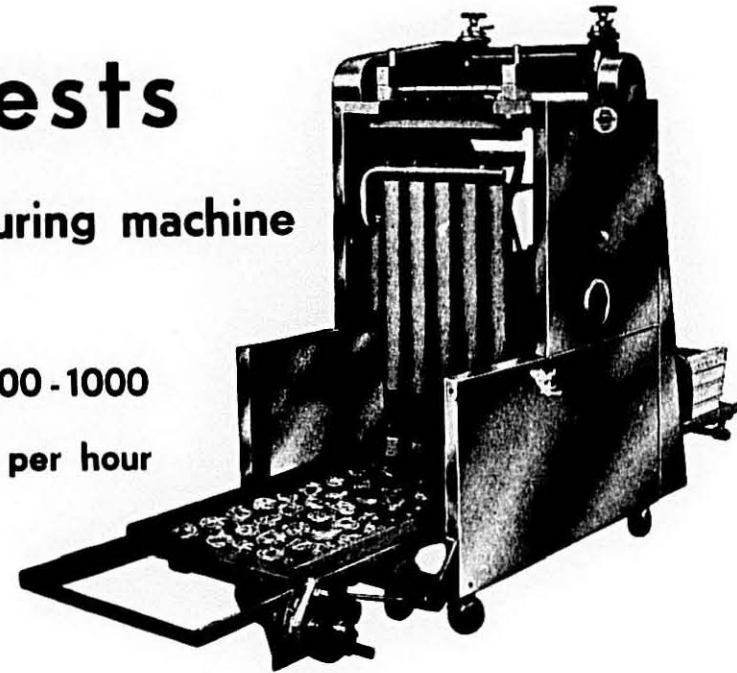
After graduation from Kansas State College he came to International as assistant to the plant manager at Danport. In 1949, he moved to St. Paul as plant manager.

In 1951 he transferred to Minneapolis as assistant to the general manager of the durum division.

Bird Nests

manufacturing machine

Capacity of 400-800-1000
pounds per hour

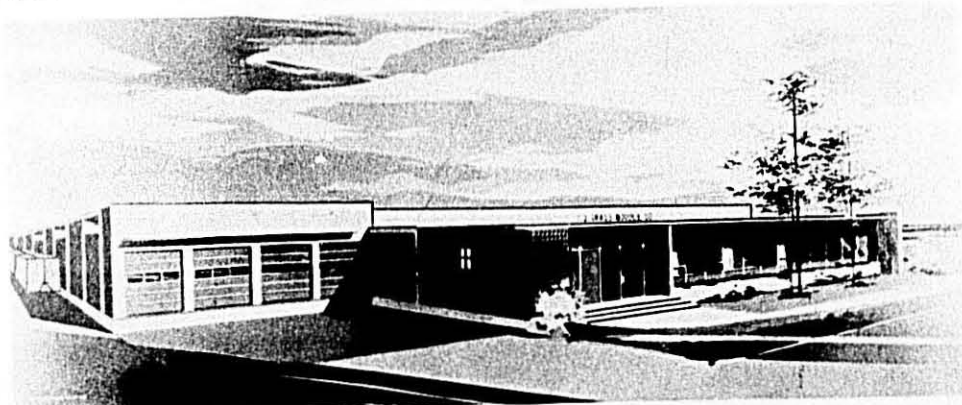


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this new kind of product?*

LAVAN

Dott. Ingg. NICO & MARIO

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MACCHINE E IMPIANTI PER PASTIFICI
GALLIERA VENETA — PADOVA — ITALY





Whiskers Help Sales

Jonesboro, Arkansas celebrated its centennial in May and Ronco representative Lee Pearce was right in the thick of things.

Lee reports that his beard and sideburns, raised for the occasion, have been sources of instant conversation in his territory and his macaroni sales have been growing with his whiskers.

He recently won top honors in local competition with other Ronco salesmen in his division. His accomplishment - enough merchandise sold and delivered in a one week period to make him a member of the 1,000 Club. Among his prizes was a 1,000 Club pin awarded by Thomas A. Cuneo, president of Ronco Foods, Memphis, Tennessee. Mr. Cuneo established the 1,000 Club as an interest builder for inter-divisional competition among company salesmen.

Employee Benefits

International Milling Company of Minneapolis last year spent approximately \$3,834,000 for employee benefits. The figure was announced at special meetings of employees held at the company's various plants and offices. Conducting the meetings were Richard A. Diercks, director of personnel, and Alan M. Kennedy, director of profit sharing.

Mr. Diercks explained that the figure included the company's program of profit sharing, group life insurance, hospital-surgical insurance for active and retired employees, educational assistance, scholarships, recreation programs and other programs.

The profit sharing retirement plan of International and its affiliated companies was explained by Mr. Kennedy, who stated that "in just six years, the sum of \$3,378,000 has been set aside by the company and employees jointly for future benefits."

These funds are held in trust for employees to provide retirement, death and severance benefits. Each year employees contribute 2% of their base pay not to exceed \$120 and the company contributes 10% of its profits after taxes.

Employees become eligible for profit sharing after four years with the company. "The average employee has accumulated about \$2,033 in his account

since the program was started in 1953, but some of the men and women with many years of service already have more than twice that much," Mr. Kennedy said.

Love Conquers All

Orchestra leader Alfonso D'Artega of New York City and the former Vita Viviano of St. Louis (V. Viviano & Bros. Macaroni Manufacturing Company) honeymooned in February after a week-long comedy of errors that would have discouraged most people.

The couple was married in St. Anthony's Catholic Church in Buffalo, New York, on February 20.

Arriving in Buffalo on February 13, the couple found they were too late to get into the marriage license bureau.

Then they discovered the state has a blood test law, and another day was lost.

Then a laboratory aide dropped the vial containing Miss Viviano's blood sample, and another day was lost.

Next, they discovered the state's three-day wait law, and three more days were lost.

D'Artega then found that he needed proof of bachelorhood in order to be married by a priest. But his birth and baptismal certificates had been lost.

He flew to New York to get a certificate from a priest who had known him for a long time. But his plane was forced down for a time in Wilkes-Barre, Pennsylvania. The priest was out of town for a day, too.

Finally, it occurred to D'Artega and his bride-to-be that there was a Lenten restriction on marriages and besides, the banns had not been published for three weeks. But the chancellor of the Diocese of Buffalo figured the couple had enough trouble; he waived the rules.

As he placed the ring on his bride's finger, D'Artega was seen to wince.

"Bursitis," he explained afterwards. "I always get it when I'm in trouble."

To Be Married

Mr. and Mrs. Sidney Grass of Chicago announce the engagement and coming marriage of their daughter, Patricia Ann Grass, to Stuart R. Linkemer, son of Mr. and Mrs. Bernard B. Linkemer, also of Chicago. Miss Grass, a graduate of the University of Michigan, is currently teaching school in Hammond, Indiana. Mr. Linkemer, a graduate of Purdue University, is a pharmacist. The couple will be married June 24.

Marriage

Mr. and Mrs. Albert S. Weiss of Shaker Heights, Ohio have announced the marriage of their daughter Carol Ann to Robert Carl Taylor on April 19. Mr. Weiss is president of the Weiss Noodle Company of Cleveland.

Arrivals

Mr. & Mrs. M. I. Kuhr of Philadelphia have announced the arrival of a daughter, Ernestine (Tina) Michele, born April 25. Mrs. Kuhr is the former Lois Grass, daughter of Mr. & Mrs. Sidney J. Grass of Chicago.

Mr. & Mrs. Donald Grass of Chicago have announced the birth of a daughter, Debora Lynn, on May 10. Mr. Grass is the son of Mr. & Mrs. A. Irving Grass of Chicago.

New Sales Manager

Weber Noodle Company of Los Angeles has announced the appointment of Alan Hamilton, former salesman, to general sales manager.

Hoffmann-LaRoche Appointments

Two appointments in the headquarters staff of the Hoffmann-La Roche Bulk Vitamin Division have been announced by Mr. Robert W. Smith, General Manager. George K. Parman has been promoted to the position of Technical Director of the Vitamin Division. At the same time Paul E. Sleezer has been advanced to the position of Assistant Technical Director. Their new assignments began May 1. Both of these men have had long experience with the technical group of the Roche Zulk Vitamin Division.

Sills Enters Canada

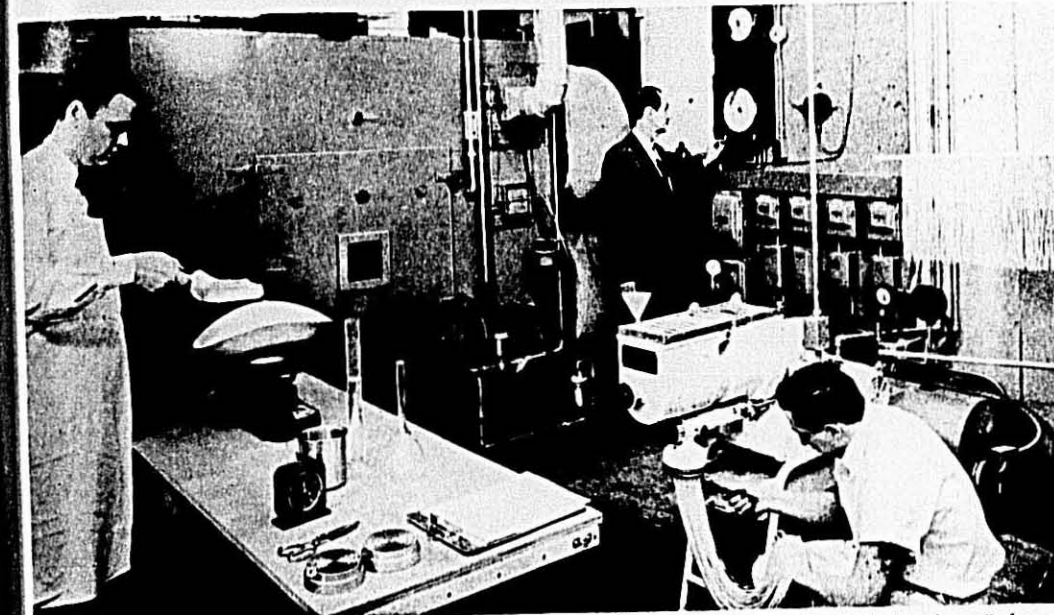
Theodore R. Sills of Canada, Ltd., Toronto, has been opened as the Canadian affiliate of the Chicago public relations firm of Theodore R. Sills & Company.

Opera Patron

Lloyd Skinner, president of Skinner Manufacturing Company, Omaha, has been given the 1959 Omaha Musicians Association award as the individual making the outstanding contribution to music in the city. Mrs. Skinner, wife of the two-term president of the National Macaroni Manufacturers Association, accepted the plaque for Mr. Skinner from Lad V. Tesar, president of the Musicians' group. The award was for Mr. Skinner's work in organizing the Omaha Opera Association. He is president of the group which presented its first opera in March, 1958.



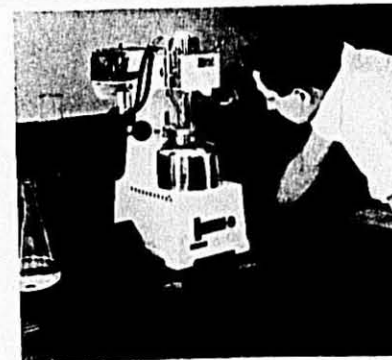
IMPORTANT NEW TOOLS for the MACARONI INDUSTRY



Fully equipped macaroni-noodle pilot plant at the Glenn G. Hoskins Co. Food Technology Laboratory. Charles M. Hoskins at left, Laboratory Director Elmer Glabe sets dryer control instruments. Perry Anderson, Chief Chemist, tends the continuous press.



Left: Chemist Art Holtorf and the Farinograph



Right: Chief Chemist Perry Anderson and the Amylograph

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Food Technology Laboratory
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Chicago 31, Illinois

HERE ARE THE MEMBERS

- of the National Macaroni Manufacturers Association, dedicated to elevating macaroni and noodle products manufacture to the highest plane of efficiency, effectiveness and public service — indicated with the letter *A*.
- of the National Macaroni Institute, organized to popularize macaroni and noodle products through research and promotion — indicated with the letter *I*.

Macaroni Manufacturers

<i>A-I</i> American Beauty	Los Angeles, Calif.	<i>A-I</i> Kientzel Noodle Co.	St. Louis, Mo.
<i>A-I</i> American Beauty	Denver, Colo.	<i>A-I</i> La Premiata Macaroni	Connellsville, Pa.
<i>A-I</i> American Beauty	Kansas City, Kansas	<i>A-I</i> V. LaRosa & Sons	Brooklyn, N. Y.
<i>A-I</i> American Beauty	Wichita, Kansas	<i>A-I</i> V. LaRosa & Sons	Danielson, Conn.
<i>A-I</i> American Beauty	St. Paul, Minn.	<i>A-I</i> V. LaRosa & Sons	Hatboro, Pa.
<i>A-I</i> American Beauty	St. Louis, Mo.	<i>A</i> Luso-American Macaroni	Fall River, Mass.
<i>A-I</i> American Beauty	Salt Lake City, Utah	<i>A-I</i> Megs Macaroni	Harrisburg, Pa.
<i>A</i> American Home Foods	Milton, Pa.	<i>A-I</i> D. Merlino & Sons	Oakland, Calif.
<i>A-I</i> Anthony Macaroni Co.	Los Angeles, Calif.	<i>A</i> Meyer's Home Made Noodles ..	Glendale, L.I., N.Y.
<i>A-I</i> V. Arena & Sons	Norristown, Pa.	<i>A-I</i> Minnesota Macaroni	St. Paul, Minn.
<i>A</i> Asien Noodle Co.	Wheeling, Ill.	<i>A-I</i> C. F. Mueller Co.	Jersey City, N. J.
<i>A</i> G.R.F. Ili Barilla	Parma, Italy	<i>A-I</i> National Food Products	New Orleans, La.
<i>A</i> Bay State Macaroni	Everett, Mass.	<i>A</i> New Mill Noodle	Chicago, Ill.
<i>A</i> B. Birkel Sohne	Stuttgart, Germany	<i>A</i> Noody Products	Toledo, Ohio
<i>A</i> W. Boehm Company	Pittsburgh, Pa.	<i>I</i> Oakland Macaroni	Oakland, Calif.
<i>A-I</i> Bravo Macaroni Company	Rochester, N. Y.	<i>A-I</i> Paramount Macaroni Co.	Brooklyn, N. Y.
<i>I</i> California Paste	San Jose, Calif.	<i>A</i> Philadelphia Macaroni	Philadelphia, Pa.
<i>A-I</i> California-Vulcan Macaroni ..	San Francisco, Calif.	<i>A</i> Piscitello Macaroni Co.	Rochester, N. Y.
<i>A-I</i> Catelli Food Products	Montreal, Canada	<i>A</i> Porter-Scarpelli	Portland, Ore.
<i>A</i> Charbonneau, Ltd.	Montreal, Canada	<i>A-I</i> Prince Macaroni Mfg. Co.	Lowell, Mass.
<i>A</i> Chicago Macaroni	Chicago, Ill.	<i>A-I</i> Prince Macaroni Mfg. Co.	Brooklyn, N. Y.
<i>A</i> Cicero Macaroni Mfg. Co.	Cicero, Ill.	<i>A</i> Prince-Michigan Macaroni	Detroit, Mich.
<i>A</i> Constant Macaroni	St. Boniface, Canada	<i>A-I</i> Procino-Rossi	Auburn, N. Y.
<i>A-I</i> Costa Macaroni Co.	Los Angeles, Calif.	<i>I</i> Quaker Maid Co.	New York, N. Y.
<i>A-I</i> The Creamette Company	Minneapolis, Minn.	<i>A-I</i> Quaker Oats	Chicago, Ill.
<i>A</i> Creamette Co. of Canada	Winnipeg, Canada	<i>A-I</i> Ravarino & Freschi	St. Louis, Mo.
<i>A</i> Crescent Macaroni	Davenport, Iowa	<i>A</i> Refined Macaroni Co.	Brooklyn, N. Y.
<i>A-I</i> Cumberland Macaroni Mfg. Co. .	Cumberland, Md.	<i>A-I</i> Roma Macaroni	San Francisco, Calif.
<i>A-I</i> Delmonico Foods, Inc.	Louisville, Ky.	<i>A-I</i> Ronco Foods	Memphis, Tenn.
<i>A</i> Delmonico Foods of Florida	Tampa, Fla.	<i>A-I</i> Ronzoni Macaroni	Long Island City, N. Y.
<i>A-I</i> DeMartini Macaroni	Brooklyn, N. Y.	<i>A</i> Peter Rossi & Sons	Braidwood, Ill.
<i>A</i> Drei Glocken	Weinheim, Germany	<i>A-I</i> A. Russo & Co.	Chicago, Ill.
<i>A-I</i> Dutch Maid Food	Allentown, Pa.	<i>A-I</i> San Diego Macaroni Co.	San Diego, Calif.
<i>A-I</i> Eichler's Noodles	Floral Park, N. Y.	<i>A-I</i> San Giorgio Macaroni	Lebanon, Pa.
<i>A-I</i> Florence Macaroni	Los Angeles, Calif.	<i>I</i> St. Louis Macaroni	St. Louis, Mo.
<i>A-I</i> Fort Worth Macaroni	Fort Worth, Texas	<i>A-I</i> Schmidt Noodle Co.	Detroit, Mich.
<i>A-I</i> Fresno Macaroni Co.	Fresno, Calif.	<i>A</i> Shreveport Macaroni	Shreveport, La.
<i>A</i> Gioia Macaroni Co.	Buffalo, N. Y.	<i>A-I</i> Skinner Mfg. Co.	Omaha, Neb.
<i>A-I</i> Golden Grain	San Leandro, Calif.	<i>A</i> Snyder's Bakery, Inc.	Hanover, Pa.
<i>A-I</i> Golden Grain	Seattle, Wash.	<i>A-I</i> Superior Macaroni Co.	Los Angeles, Calif.
<i>A-I</i> Gooch Food Products	Lincoln, Nebr.	<i>A</i> Tharinger Macaroni	Milwaukee, Wis.
<i>A-I</i> A. Goodman & Sons	Long Island City, N. Y.	<i>A-I</i> U. S. Macaroni	Spokane, Wash.
<i>A-I</i> I. J. Grass Noodle Co.	Chicago, Ill.	<i>A-I</i> Weiss Noodle Co.	Cleveland, Ohio
<i>A-I</i> Horowitz & Margaretten ..	Long Island City, N. Y.	<i>A-I</i> West Coast Macaroni	Oakland, Calif.
<i>A-I</i> Ideal Macaroni	Cleveland, Ohio	<i>A-I</i> Western Globe Products	Los Angeles, Calif.
<i>A</i> Inn Maid Products Inc.	Millersburg, Ohio	<i>A-I</i> A. Zerega's Sons	Fairlaw, N. J.

Associate Members

<i>A-I</i> Amber Milling Div. GTA	St. Paul, Minn.	<i>A-I</i> International Milling Co.	Minneapolis, Minn.
<i>A</i> Ambrette Machinery	Brooklyn, N. Y.	<i>A-I</i> King Midas Flour	Minneapolis, Minn.
<i>A</i> Ballas Egg Products	Zanesville, Ohio	<i>A</i> Lawry's-Van-Frank Sales	Los Angeles, Calif.
<i>A</i> Braibanti Company	New York, N. Y.	<i>A</i> D. Maldari & Sons	Brooklyn, N. Y.
<i>A</i> Buhler Brothers	Englewood, N. J.	<i>A</i> Merck & Co.	Rahway, N. J.
<i>A</i> N. J. Cavagnaro & Sons	Brooklyn, N. Y.	<i>A</i> Milprint, Inc.	Milwaukee, Wis.
<i>A</i> Clermont Machine Corp.	Brooklyn, N. Y.	<i>A</i> Monark Egg Corp.	Kansas City, Mo.
<i>A-I</i> Commander-Larabee	Minneapolis, Minn.	<i>A-I</i> North Dakota Mill	Grand Forks, N. D.
<i>A</i> Container Corp. of America ..	New York, N. Y.	<i>A</i> Wm. Penn Flour Mills	Philadelphia, Pa.
<i>A</i> DeFrancisci Machine	Brooklyn, N. Y.	<i>A</i> Chas. Pfizer Co.	Brooklyn, N. Y.
<i>A</i> Dobeckmun Company	Cleveland, Ohio	<i>A-I</i> Rossotti Lithograph	North Bergen, N. J.
<i>A-I</i> Doughboy Industries	New Richmond, Wis.	<i>A</i> Schneider Brothers, Inc.	Chicago, Ill.
<i>A-I</i> General Mills, Inc.	Minneapolis, Minn.	<i>A</i> U. S. Printing & Lithograph Co. .	New York, N. Y.
<i>A</i> Hoffmann-LaRoche	Nutley, N. J.	<i>A</i> Wallace & Tiernan	Belleville, N. J.
<i>A</i> Glenn G. Hoskins Co.	Libertyville, Ill.	<i>A</i> The Woodman Company	Decatur, Ga.

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JACOBS-WINSTON LABORATORIES, INC.

156 Chambers Street
New York 7, N. Y.

It is with pride that we call your attention to the fact that our organization, established in 1920, has throughout its 38 years in operation, concerned itself primarily with macaroni and noodle products.

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

We are happy to say that, after 38 years of serving this industry, we shall continue to explore ways and means of improving our types of activities to meet your requirements, and help you progress with your business.

James J. Winston

RETROSPECTIONS

by
M. J.

40 Years Ago

• The St. Louis convention of the macaroni industry shortened the name of the Association from "The National Association of the Macaroni and Noodle Manufacturers of America" to the "National Macaroni Manufacturers Association."

• Officers elected for the 1919-1920 term were: James T. Williams of the Creamette Company, president; B. F. Huestis of Huron Milling Co., Harbor Beach, Michigan, first vice president; S. Savarese of Savarese Macaroni Company, Baltimore, second vice president; Fred Becker of the Pfaffmann Egg Noodle Company, Cleveland, treasurer.

• Said President James T. Williams to conventioners June 10, 1919: "The greatest left-over problem that the Association officers had to work out during the past year was that of establishing a real trade journal that will be thoroughly representative of our industry."

• Said Editor M. J. Donna: "The New Macaroni Journal is just one month old today. It is a child born of the wishes and desires of the macaroni industry."

30 Years Ago

• A report released by the Bureau of Foreign and Domestic Commerce showed the trend in macaroni products to be a decrease in imports and a steady gain in exports.

• The industry is awaiting the probable passing of a bill to raise tariff duty on egg macaroni to compensate for heavy increase in price of eggs.

• "Good Will" is the disposition of the customer to return to the place where he has been well served." - From a decision of the United States Supreme Court.

• Henry Mueller, NMMA adviser and past president, entertained the convention delegates and their families at an outing at Luna Park, Coney Island.

• A. Zerega's Sons, Inc. was established in Brooklyn, New York in 1848 and has continuously operated a macaroni plant there. The Journal asks: "Is it possible that Zerega's is the oldest existing macaroni manufacturing plant in America?"

• The plant of Refined Macaroni Company, Brooklyn, New York, suffered \$7,000 damage in a fire of undetermined origin May 7.

20 Years Ago

• Many NMMA members combined their attendance at the industry's annual convention held at the Park Central Hotel, New York City, this month with visiting the World of Tomorrow at the New York World's Fair.

• Mrs. Ida Bailey Allen, one of America's leading authorities on home economics, addressed the macaroni convention on "Macaroni Products in the Balanced Diet."

• The Food, Drugs and Cosmetics Act became effective on June 25, and the industry wonders if the law will be enforced stringently immediately or if manufacturers will be given a breathing spell to permit adjustment.

• Spaghetti is one of the favorite foods among the 61,798 pupils who daily patronize the 51 high school cafeterias in Chicago, said Frank O. Washam, director of lunchrooms for the Chicago Board of Education. Students eat 310 pounds of spaghetti each noon.

• Pictured in the Macaroni Journal were the newlyweds, Mr. and Mrs. William J. Freschi as they boarded the airplane for New York where they will sail for a European honeymoon.

10 Years Ago

• Theme of the 46th Annual Convention held at the Edgewater Beach Hotel, Chicago: Better Material, Better Methods, Better Merchandising for Better Business.

• A working model of the Pneu-Vac system for handling bulk semolina, granular or flour from storage to processing machines was displayed at the convention. The first installation of this new equipment was made at the Mags Macaroni Co., Harrisburg, Pa.

• Dr. O. J. Kahlenberg, director of research for the National Egg Products Association, explained to noodle manufacturers the procedures for the defrosting of frozen eggs.

• "Commander" Thomas L. Brown, for years manager of the Commander-Larabee Milling Company, Minneapolis, retired after 54 years in the semolina business.

• A ground-breaking ceremony was held this month at Jacksonville Road and County Line near Hatboro, Bucks County, Pa., for an additional plant for V. La Rosa & Sons, Inc. The new factory will be completely mechanized.

CLASSIFIED

ADVERTISING RATES

Display Advertising Rates on Application
Want Ads 75 Cents per Line

FOR SALE—Clermont Noodle Cutter, with five sets standard cutting width rollers, Dough Breaker, Noodle Dryer consisting of two units, Preliminary Dryer and Finish Dryer. In excellent condition, in operation now. Reasonably priced. Write Box 154, Macaroni Journal, Palatine, Illinois.

FOR SALE—New Lombi Ravioli Machine, 5 Column Piston, 1 1/4 Square New Type. Good Buy if you can use this. Not suited for our operation. Box 159, Macaroni Journal, Palatine, Illinois.

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La Rosa Offer

V. La Rosa & Sons, Inc., Brooklyn, New York, is staging an on-package two-cents-off promotion for its elbow macaroni.

Reportedly heavy spot radio campaigns are being conducted in all La Rosa market areas.

INSIDE SCIENCE

The Vital Story of MACARONI* ENRICHMENT

by Science Writer

This is the fourth article in a series devoted to the story of cereal enrichment.



word of the great benefits which result from enrichment.

For years, some forward-looking manufacturers of macaroni and noodle products have used enrichment to make their good foods better. They know that enrichment restores important vitamin and mineral values which are unavoidably lost in milling, and they recognize their responsibility to provide the greatest health-building benefits for the public.

Enrichment is really a simple process. It adds the following essential elements to the food during manufacture.

Thiamine—also called vitamin B₁. This vitamin helps to build physical and mental health. It is essential for normal appetite, intestinal activity and sound nerves.

Riboflavin—also called vitamin B₂. This vitamin helps to keep body tissues healthy and to maintain proper function of the eyes. It is essential for growth.

Niacin—another "B" vitamin, is needed for healthy body tissues. Its use in the American diet has done much to make a serious disease called pellagra disappear.

Iron—is a mineral used in all enrichment. It is essential for making good, red blood and preventing nutritional anemia.

Products made from semolina may be enriched by two methods. One uses small square wafers which contain all the vitamins and iron necessary to enrich 100 lbs. The wafers break up in a small amount of water which is then added to the paste. For manufacturers who use the continuous press method, a powdered concentrate of the vitamins and iron, called a premix, is available. This is added by a mechanical feeding device.



*Macaroni is used here in the generic sense. It includes all alimentary pastes: macaroni, spaghetti, pasta, noodlet.

These are the minimum and maximum levels, in milligrams per pound, required by the Federal Definitions and Standards of Identity for enriched alimentary pastes.

	Min.	Max.
Thiamine (vitamin B ₁)	4.0	5.0
Riboflavin (vitamin B ₂)	1.7	2.2
Niacin	57.0	34.0
Iron	13.0	16.5

NOTE: These levels allow for 30% to 50% losses in kitchen procedures.

Nowadays scientists are able to "build" duplicates of many of Nature's essential complexes in the laboratory. This has happened with many vitamins. First the chemical composition is learned and the pure substance is isolated. Then a "duplicate" is made which is identical chemically and biologically with Nature's product. A vitamin is a vitamin regardless of its source just as salt is salt whether it comes from a mine or is evaporated from the sea. So efficient is large scale manufacturing that vitamins are sold at a lower cost than if they were extracted from natural sources.



The Hoffmann-La Roche people, who produce a good percent of the vitamins used in enrichment, use amazingly complex processes with scientific production controls. This requires modern, special equipment filling whole buildings, each one a city block square and many stories high.

The combination of scientific research, thorough know-how and mammoth manufacturing processes—plus the far-sightedness of leaders in the macaroni industry—is helping vitally to make good macaroni products better.

This article, reprints of which are available without charge, is published as a service to the macaroni industry by the Vitamin Division, Hoffmann-La Roche Inc., Nutley 10, New Jersey. In Canada: Hoffmann-La Roche Ltd., 1956 Bourdon Street, St. Laurent, P.Q.

Just off the press

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