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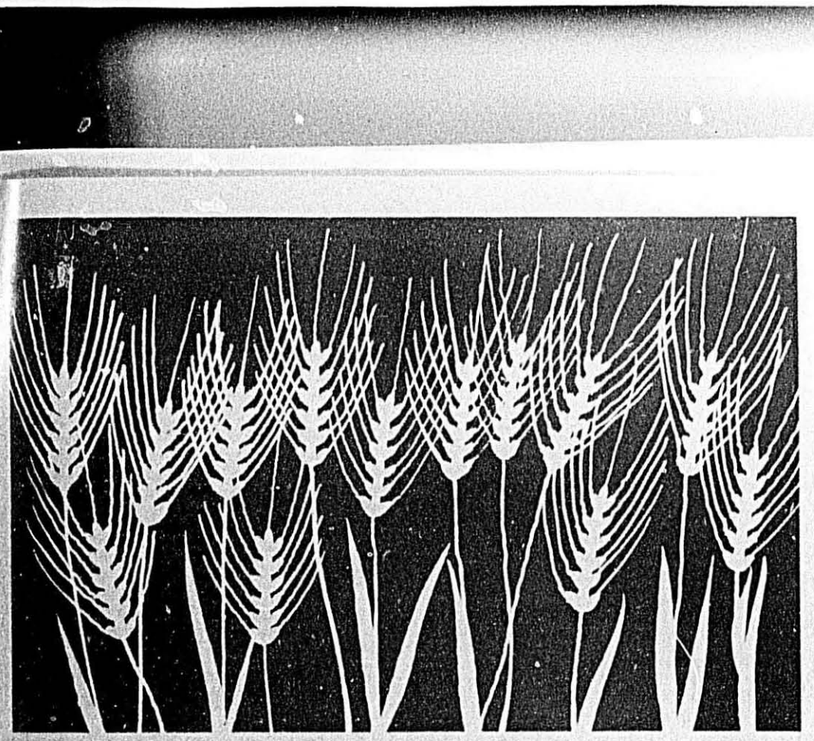

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Macaroni Journal

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Bess Myerson Asks FDA to Name a New Macaroni

New York City Consumer Affairs Commissioner Bess Myerson recently called upon the U.S. Food and Drug Administration to give a true name to a new kind of macaroni that's been cooked up by the food industry.

In a letter to FDA Commissioner Dr. Charles C. Edwards, Miss Myerson accused the regulatory agency of looking the other way while macaroni manufacturers work out labeling regulations to suit themselves.

The new pasta is a high protein recipe first developed by General Foods as a means of introducing more protein into the diets of low-income groups. The giant food concern calls its corn-soy-wheat product Golden Elbow Macaroni, and wants the label to read that way.

The established macaroni and spaghetti manufacturers claim that the new pasta is nothing but corn mush masquerading as macaroni. They charge that its inferior taste and texture will give their traditional all-wheat product a bad name.

Find A Name

"It's up to the FDA to find a name for the new product which is informative but not pejorative," said Commissioner Myerson. "Consumers should not be misled into thinking that a corn-based product is true macaroni. But this highly nutritious food should not have to overcome the marketing problems posed by a name like 'imitation macaroni.'"

Commissioner Myerson proposed that the product be called "corn and soy macaroni with improved protein quality" and that all ingredients be listed on the label in descending order of predominance. She also urged that any further discussion of the issue be brought to consumers' attention through open hearings or publication in the Federal Register.

"The Federal Food, Drug and Cosmetic Act requires that rule making be prompt and public," Commissioner Myerson said. "The macaroni debate has been going on for over a year behind closed doors. Is this any way to find an honest name?"

Columnist Comment

Robert J. Herguth of the Chicago Daily News reported: "New York Consumer Aide Bess Myerson objects to naming a new corn soy and wheat pasta 'Golden Elbow Macaroni.'"

Proposed Recommended Dietry Allowances

James J. Winston, N.M.M.A. Director of Research, reports that on March 29 the Food & Drug Administration proposed a voluntary system of nutritional labeling of food products using the percentages of the Recommended Dietary Allowances in increments of 5 or 10 percent. This type of labeling will replace the Minimum Daily Requirement which has characterized labeling for many years.

A comparison between the old system and the proposed new system indicates that the levels have been increased to promote better nutrition.

	Minimum Daily Requirement	Recommended Dietary Allowance
Vitamin A	5000 IU	5000 IU
Vitamin D	400 IU	400 IU
Ascorbic Acid (Vitamin C)	30 mg	60 mg
Thiamine	1.0 mg	1.5 mg
Riboflavin	1.2 mg	1.7 mg
Niacin	10.0 mg	20.0 mg
Calcium	750.0 mg	1000.0 mg
Iron	10.0 mg	18.0 mg
Phosphorus	750.0 mg	1000.0 mg
Protein	—	65.0 gm

The FDA is of the opinion that nutrition information for food products will increase consumer confidence in the food industry.

The N.M.M.A. Standards & Nutrition Committee is studying the proposed new regulations and will keep the membership informed with the labeling requirements. The FDA allowed a period of ninety days to comment on the proposals.

Wheat Forecast

The Department of Agriculture is tentatively forecasting a record U.S. wheat crop of 1,665,000,000 bushels for 1972. This would be about 2 percent larger than the 1971 harvest. Spring wheat may be down some 100,000,000 bushels, but the winter crop appears to be 140,000,000 larger than a year ago. This is based on the March 1 forecast with an estimated 55,600,000 acres, up 1 percent from 1971 plantings.

The 1971 world wheat crop was a record 11,500,000,000 bushels, 9 percent greater than the 1970 crop. By regions 25 percent of the increase was in North America; South America 13%; Western Europe 16%; Eastern Europe 27%; Africa 7%; Asia 4%, Oceania 6% and Russia down 6%.

New Booklet Discusses Low Cost of Food Fortification

A new Hoffmann-La Roche booklet tells food manufacturers about the vitamin costs of fortifying various popular foods—and shows them how to roughly compute the costs themselves.

The 11-page, illustrated booklet, "The Cost of Fortifying Food with Vitamins," notes that the ingredient costs of vitamin fortification usually run less than a fraction of a cent per package. It details four factors that have increased the desirability of fortification: the consumers' need for better nutrition, their willingness to even pay more for fortified foods, the decreasing cost of vitamins and the low cost of fortification itself.

Food manufacturers can estimate the vitamin costs of supplying all or part of the Recommended Dietary Vitamin Allowance or Minimum Daily Vitamin Requirements with a handy chart at the end of the booklet.

Copies of the booklet may be obtained by writing John W. Gage, marketing manager, food nutrition, Roche Chemical Division, Hoffmann-La Roche Inc., Nutley, New Jersey 07110.

Weight Watchers Push Pasta

The May issue of Weight Watchers Magazine carried a cover picture of Strawberry Granita (a variation of a Neapolitan ice) and array of pasta products in apothecary jars.

The editors explained: "One thing we never tire of is Italian food. The possibilities for 'legal' recipes is almost endless—thank goodness! The pasta in the background is not a suggestion that you have it with your Granita; rather it's to let you know that the newly revised Weight Watchers program now allows pasta (in specific, limited quantities, of course)."

Then in the center spread, pictured in full color are jars of conchiglie, spaghettini, tortiglioni, fusilli, farfalletti, grosso rigato, occhi di lupo, cavatelli, sea shells, gramigna rigata, and farfalle. These are fronted by some cooked dishes of pasta plus Baked Tomatoes stuffed with Tuna & Capers, Poached Whiting with tomato sauce, Sweet & Sour Tuna Fish, Veal al Limone.

An additional two columns are devoted to explaining what pasta is. Examples are given for soups, sauces, baking, to be stuffed, along with cooking directions.

Bon appetito!

Seminar On Wheat

SOME 60 macaroni manufacturers and suppliers attended a Seminar on Wheat at the Radisson South, Bloomington, Minnesota in mid-April.

A welcoming reception was held in the garden court by the durum millers for the group Sunday evening.

Visit Exchange

On Monday the Minneapolis Grain Exchange was visited to see trading on the floor, examine samples on buyers' tables, and visit Peavey's quality control laboratories where testing is done to determine the quality of the grain, a determination of where the best grain comes from, and what its milling and processing qualities will be.

What Buyer Looks For

John Roarke of Farmers Union Grain Terminal Association said that a durum buyer looks for hard, vitreous kernels of good color and good milling yield, free from foreign material and fungus damage. He noted that 85% of the current crop rated No. 1 or 2 and most was in heavy grades, 62 lbs. or better. Thus far domestic demand has been up and exports better than expected so competition has been keen.

There has been a space problem with the new shipping regulations to lower freight rates. Because a car has to be unloaded within ten hours, shipments must have a home before they are put on the tracks. This has increased the amount of "to arrive" buying. "It looks like a steady market for the balance of the year," Mr. Roarke declared.

ASCS Comments

John Wenn, Jr. of the Agricultural Stabilization and Conservation Service of the U.S. Department of Agriculture said they had been having problems in getting deliveries on time for the couple of million pounds of wheat-soy macaroni they have been purchasing monthly. He said the macaroni industry has developed an image of being lax. He noted that recipients of give-away programs apparently are more particular than purchasers and complaints of crushed and damaged products have led to cries for investigation.

Cereal Technology

A team of durum experts from North Dakota State University discussed durum from plant breeding to cereal technology. They included Dr. Kenneth A. Gilles, Vice President for Agriculture at the University; Dr. Orville Banasik, Chairman, Cereal Technology Department; Dr. David D. Walsh, Professor, Cereal Technology Department; and Dr. Leonard Joppa, Agronomist for the U.S. Department of Agriculture. Their comments follow.

Organizational Efforts

Paul E. R. Abrahamson, Administrator of the North Dakota State Wheat Commission, described the work of that organization, while Vance Goodfellow, Executive Vice President of the Crop Quality Council, told what that group does to insure quality grain supplies through the upper Midwest.

Peavey Day

On Tuesday the group went to Hastings to see Peavey's new durum mill. This up-to-the-minute mill began operations in January, 1971 and is located a few miles south of the Twin Cities on the Vermillion River. It has a capacity of 6,000 cwts. daily and represents an investment of some $3,500,000.

Luncheon was offered by the Peavey Company at Hazeltine Country Club and was immediately followed by an open discussion on milling matters with the following technicians handling the answers: Larry Warren, Archer-Daniels-Midland; Bob Bruning, International Multifoods; Jim Jacobs, Peavey Company Flour Mills; Ray Wentzel, North Dakota Mill & Elevator.

The group then toured Peavey Company's research center at Chaska, an impressive facility both for the work being done and the surroundings in which to do this work.

Manufacturing Discussion

There was a discussion of Good Manufacturing Practices led by Jim Winston on Wednesday. Comments were made by Bill Berger of the Buhler Corporation, Charles Hoskins of the Hoskins Company, and Ralph Maldari of D. Maldari & Sons as well as representatives attending.

Next Year in Omaha

An announcement was made at the close of the meeting that next year's Seminar will be held in Omaha, Nebraska with a trip planned to Gooch Mills and macaroni plant in Lincoln, Nebraska and egg breaking facilities in the area with a final visit to the Skinner Macaroni plant in Omaha.

Wheat belongs to the genus "Triticum" of the family Gramineae (the grass family).

Good News from Seminar

With budgets flatter than a noodle these days, there was cheering news on the macaroni front.

The combination of nature, farm expertise, research and efficient manufacturing techniques has kept the cost of macaroni products fairly constant during this period of increased prices.

Macaroni manufacturers and allies, in a three-day seminar on wheat at the Radisson South in Bloomington, Minnesota, heard Association Secretary Robert M. Green report that in general macaroni wholesale prices have increased less than five percent in the past two to three years. The informal survey indicated that some markets experienced no price increases during that period, Green said.

Efficiency Credited

Green credited increased efficiency by the farmer, miller, researcher and macaroni manufacturer as the main bulwark against the rising costs of labor, freight and taxes.

Year after year, record-breaking production and consumption of macaroni products has attested to their popularity with the consumer. Better than 1½ billion pounds were consumed in the United States last year. Macaroni is the generic name for elbow macaroni, spaghetti, egg noodles—the three biggest sellers—and scores of other shapes and sizes, Green explained.

"We think the homemaker has found that versatile macaroni products can deliver a good, nutritious meal for her family and an economical one as well since macaroni makes an excellent meat extender," Green said.

Rolette

Also under discussion at this meeting was the recent development of a new high yield durum wheat variety called Rolette, which will be planted in the fields this spring.

Under test in North Dakota trial plots since 1966, the Rolette, in addition to higher yields, will mature earlier, is plant disease resistant and offers a high wheat protein content.

Green hailed the introduction of the new durum variety as another example of government, university and industry cooperation in a joint effort to provide an improved end-product, macaroni.

The United States Department of Agriculture, North Dakota State University and cereal technologists for both the milling and macaroni industries comprised the team which developed this variety, Green reported.

The Minneapolis Grain Exchange

The Minneapolis Grain Exchange has long occupied a prominent position in commodities trading.

It had its modest beginning in 1881, when it was founded as the Minneapolis Chamber of Commerce. By 1885 Minneapolis had taken first place in receipts of wheat, and its market quotations became recognized in every market of the world.

The present building at 4th Avenue and 4th Street South was erected in 1900, while the Annex was constructed during the First World War. There was a name change in 1947 to the more appropriate designation of the Minneapolis Grain Exchange.

There is a vast and productive region served by the Minneapolis Grain Exchange, comprising the states of Minnesota, North Dakota, South Dakota and Montana. Its trading influence extends over adjacent areas, and it is recognized as the foremost market in a number of commodities, including Northern spring wheat and durum.

The commodities market performs a definite and helpful economic function for the general public. Many commodities, such as grains, have a relatively short harvest season. During this time they are in plentiful supply and this supply must last throughout the year. Weather conditions, plant diseases, insect pests, help determine whether crops are large or small. With all of these factors of uncertainty, prices would fluctuate wildly if there were no way of "taming" the law of supply and demand.

There are two kinds of traders—hedgers and speculators—who are essential to each other. If either did not exist there would be no trade and little market movement.

Hedging

Hedgers are growers, processors and marketers of commodity products who could suffer heavy losses through drastic price movements. A hedger takes a position in the future market opposite to what he holds in the cash market. A selling hedge is used to protect an owner of commodities against a price decline, a buying hedge protects one who must make delivery against a price increase. Through careful placement of hedges he can often assure himself a profit regardless of future cash price movements.

Speculating

Speculators are mainly the general public with risk capital who seek a profit because of rapid market swings. A speculator can make money if he quickly closes out losing trades, and holds profitable trades when he has correctly diagnosed market trends.

Spirited bidding in the pit.

Function of the Exchange

The commodity exchange provides a number of valuable functions. First of all, it provides a central locality where firms and individuals can buy or sell contracts for future deliveries of commodities. It likewise sets rules and regulations governing these operations and provides contract specifications. Because the exchange specifies the contract terms and provides penalties for non-performance, the basic value of one contract is identical to another contract for the same commodity.

Margins

Margins are what make the commodity market a particularly attractive field for the investor. They are about ten percent of the contract value. The function of margins is to make sure the buyer or seller fulfills his contract obligations. Therefore, margins need not be any greater than are necessary to accomplish this purpose. Commissions are likewise small, so that much less in funds is tied up than in nearly any other financial operation.

Durum

There is no futures market for durum because the volume is too small. But the only cash market in the country for durum is at the Minneapolis Grain Exchange.

Albert Flesland to Retire

Albert Flesland, principal writer for Grain Market News, published in Minneapolis by the U.S. Department of Agriculture, is retiring. The publication will be combined with material coming from Chicago and the Durum Quarterly Report will be issued from Chicago as well.

Mr. Flesland, speaking at the Seminar, noted that weekly news on durum is getting to be more difficult to obtain. Durum receipts in Minneapolis are no longer available, and data from inspection points comes from four centers in North Dakota.

Superintendent at Centennial's L.A. Mill

Centennial Mills, Portland, Oregon, has announced the promotion of Bill Wohkittel to the position of Plant Superintendent of Centennial's Los Angeles flour mill. The announcement was made by John Wingfield, vice president of production. Wohkittel was previously first miller at the former Quaker Oats facility. The Los Angeles mill was just recently purchased by Centennial. Wohkittel reports to F. Don Hodge, manager of the Los Angeles Mill.

Late Spring

Field work in durum country has been delayed by snow, rain and generally inclement weather says North Dakota Weather-Crop Reports from mid-April to the end of the month.

Peavey Durum Mill at Hastings

THE Peavey Company Flour Mills opened its new automated durum mill at Hastings, Minnesota, a few miles south of the Twin Cities, in January, 1971.

It was the first new durum mill built in the United States in fifty years and represented an investment of $3,500,000. It is designed specifically for semolina and durum flour and equipped with the most modern and complete facilities and systems available for cleaning, purifying and filtering. Daily capacity is 6,000 cwts.

Peavey has two other mills at Superior, Wisconsin and Buffalo, New York.

On Vermillion River

The Hastings facility rises eleven stories in height and is designed for the most efficient possible flow of the product. Pneumatic conveying equipment moves the mill stock smoothly and quickly through the different processing steps. A continuous gravimetric scale system assures production with the highest degree of consistency in semolina products. A bulk storage facility is located immediately below the milling area. The storage bins have air-slide bottoms to permit gravity loading and eliminate the problems often caused by warm air entering into cars.

Automatic control panels constantly monitor weight and mixing and bin levels are checked by an ultrasonic signal system.

Pollution Control

A significant feature of the new mill is the equipment used to combat air and noise pollution. An air wash system, the first to be used in the flour and grain industry, washes and conditions process air. A cyclone dust collector first removes major particles. The air is then sent through a cloth-bag dust filtering unit which is said to be 99.9% effective in removing dust. As a final step, the air is scrubbed in a wet washer, with the water being recycled and used again.

Started in 1913

It was back in 1913, that the firm began milling to meet an increasing demand for semolina and durum flour. The move was taken at the site where the present mill now rises when part of the flour mill was converted to durum.

Eli Posner, head miller, at the control panel.

Many of the innovations in durum milling are credited to Peavey Company. Emphasis upon research and quality control has contributed significantly to the firm's leadership in the industry. The Company maintains an operative scale model of a commercial macaroni press which enables the laboratory to test the quality of semolina and durum flour samples by production of spaghetti and noodle products on a small scale.

The group attending the Seminar was welcomed to the mill by President Mark Heffelfinger, Bob Cromwell, Sales Manager in charge of durum products and Merlin Anderson, Mill Superintendent. Mill personnel escorted small groups through the facility.

Peavey Hastings Mill

Durum Mill—Floor Plan Peavey's Plant at Hastings

On the roof of this ten floor structure is an air wash system cleaning the air that enters the mill.

On the 10th floor are pneumatic cyclones, filter, wheat scale and scourers.

9th floor: 16 sifters.

8th floor: 18 purifiers, disc separators.

7th floor: 17 purifiers, belt scales, dusters, stoners.

6th floor: grinding rolls, 39 stands; table graders.

5th floor: car load out bins, wheat washers.

2nd to 5th floors: feed bins, truck load out bins, storage bins.

4th floor: table graders.

3rd floor. scourers.

1st floor: blending scales, hammer mill, tempering bins, wheat heater.

Dressed in white, the visitors are briefed on what they will see as they tour the plant.

Visitors gather around Norton Risdahl who explains differences between various mill streams.

INTERNATIONAL VENTURE RESEARCH is a division of Peavey Company, with headquarters in Chaska, Minnesota, southwest of the Twin Cities, on a 9-acre site overlooking Lake Hazeltine. It is a part of the industrial center of Jonathan, one of the country's first planned communities of the future.

Research & Development

An outgrowth of a research and development group established in 1968, the firm is made up of highly qualified scientists and other professionals who can effectively explore business opportunities, develop new products and/or services, design and activate production facilities and implement successful marketing plans.

Their modern two-story facility was designed for full appreciation of the scenic, rolling countryside. Laboratories occupy the center of the building. Staff offices are on the perimeter, as are the library, an employees' lunchroom, and "coffee-caucus" areas.

Adjoining the main building is a completely equipped pilot plant, where small scale production runs of new food products can be made to supply test market demands. An enclosed bridge connects the two buildings and houses the Engineering Department.

Activities

The International Venture Research group is capable of covering the following range of activities:

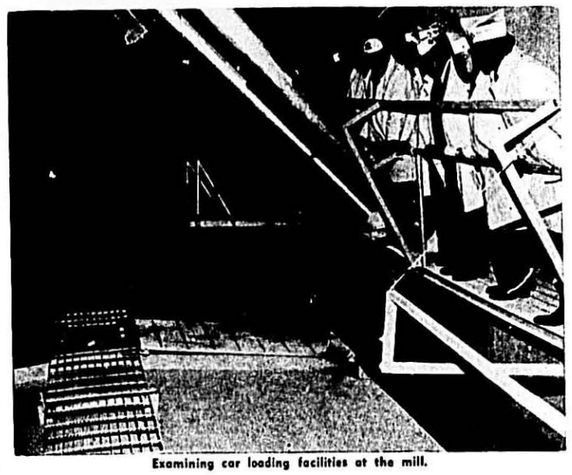
- New Product Development
- Process Engineering
- Home Economics
- Market Research
- Economic Research
- Library Service
- Management and Supervisory Training

Although by its very nature, each of these disciplines is specialized IVR utilizes the team approach in handling venture projects. In doing so, a project benefits from the expertise of each discipline, separately, and of all, totally, as they compliment and relate with each other.

Where input from additional disciplines is desirable on a specific project, it is arranged for on an associate or consultant basis.

John H. Nelson, Ph.D., is Director of the Research Center.

Mark Heffelfinger



Examining car loading facilities at the mill.

International Multifoods Earnings Up

International Multifoods reported improved earnings and sales for the fiscal year and fourth quarter ended Feb. 29.

Based upon preliminary unaudited figures, fiscal year earnings were up 16 percent to $8,568,000 from $7,363,000. Per share earnings, based on a larger number of shares outstanding, were up five percent to $2.54 from $2.41 for fiscal 1971. In July 1971, Multifoods issued 300,000 shares of common stock.

Sales were up six percent to $457,462,000 from $433,597,000 a year ago.

Fourth quarter consolidated net earnings were $2,750,000 or 79 cents per share on sales of $118,293,000. This compared with $2,207,000 or 72 cents per share on sales of $112,251,000 for the fourth quarter a year ago.

Multifoods now has reported increased earnings for the fourth consecutive year.

Durum from Plant Breeding to Cereal Technology

By Dr. Kenneth A. Gilles, Vice President for Agriculture, North Dakota State University

Dr. Kenneth A. Gilles

ON behalf of the staff members of North Dakota State University and their cooperating associates from the USDA, I would like to express our pleasure for the invitation to participate in the Seminar on Wheat sponsored by the National Macaroni Manufacturers' Association. During the next hour, you will hear presentations from Professor Banasik, Dr. Joppa and Dr. Walsh which will summarize some of the research activities that are centralized at the North Dakota Agricultural Experiment Station at Fargo and the associated branch stations. In North Dakota, seven experimental farms, having more than 8,300 acres, are used for agricultural research. Unfortunately, it is not possible to acknowledge the work of all of the people who contribute to durum wheat research. Consequently, I would suggest that the four of us here today merely represent the activities of a number of people. We must all recognize that it is the appropriate utilization of the basic resources of people, facilities, funds, and ideas that make possible the research program on durum wheat and its utilization.

Of particular significance to this seminar is the opportunity for people to meet and exchange ideas. For it is the proper blend of people and their ideas that enhance the possibility of creating good research which is relevant to the macaroni industry.

Because the members of this audience represent many diverse types of training and interests, it may be appropriate to review briefly some historic elements of the Land-Grant College System.

What is the Land-Grant College System?

In 1862, President Lincoln signed three bills which markedly affected the development of the United States as a major supplier of agricultural products to the world. On May 15, 1862, the Department of Agriculture was created, on May 20, the Homestead Act, and on July 2, the Land-Grant College Act were signed, respectively. The latter was a bill credited to Senator Justin Morrill which provided that portions of federally owned land be sold and the proceeds used for the "perpetual endowment" in each state of at least one college whose main aim would be "without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such a manner as the legislature of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."[1] Iowa State College was the first to accept the provisions and responsibilities of this act.

When Were the Agricultural Experiment Stations Created?

In 1875 Connecticut established the first Agricultural Experiment Station. Twelve years later in 1887, the Office of Experiment Stations was established in the Department of Agriculture. In view of the current interest in nutrition, it is of significance to note that Dr. Atwater, the first director, wrote in the first annual report, "In studying the food of animals, we have no right to neglect the food of man. The principles involved are essentially the same. . . . The need and the wisdom of such studies require no urging."[1]

How is the System Working Today?

I believe that the system is working well. It provides opportunity for three elements, education, extension and research. The independent and team research effort is considered throughout the world to be one of the remarkable contributions that the United States has made to the improvement of life and economic opportunities in rural areas and to the associated agribusiness activities as well. The system is not perfect; however, the positive contributions outweigh the negative actions which occasionally arise.

The state universities and land-grant colleges educate a disproportionately large share of all of the college degree people in the United States. The latest degree study released by the U.S. Office of Education indicates that more than one-third (37%) of the approximately one million degrees presented in the United States were granted by these universities and colleges. Moreover, while these institutions represent only about 7% of the institutions in the study, they granted 35% of the bachelors degrees, 42% of the masters degrees, and 62% of the Ph.D. degrees. The theses of the latter two provide much of the new research information. Perhaps of even greater interest to the food industry is recognition of the fact that these institutions granted 100% of the doctorates in agriculture, 86% of the home economists, 73% of the biological scientists, 72% of the health professions, 70% of the business and commerce and 62% of the engineering majors.

While my talk is not going to proceed on the basis of quoting these types of statistics, I believe that it is important to recognize that these institutions are the greatest contributors to the types of training used in your industry.

Extension activities are the second key element in the Land-Grant College System. These activities provide for continuing education of people of all ages, vocations, and walks of life. Usually these activities are conducted away from the campus and sometimes are referred to as technology transfer. Without delving further, the participation of our staff members here today may be considered by some people an example of extension activity. However, many others prefer to associate these activities with farm production, home economics and 4-H types of activities.

Probably the third element, research, is the area of greatest interest to those attending this Seminar on Wheat.

How is the Agriculture Research Funded?

Essentially, it is funded in three ways, state and federal appropriations, and local collections or grants. The primary source of research funds is state appropriations which are funded on an an-

(Continued on page 14)

Durum—

(Continued from page 12)

nual or biennial basis. These funds usually represent more than half of the income of the agricultural experiment stations and are highly dependent upon the support of the farm procedures and the agribusiness people. Without your active support, the agricultural programs will be lowered in priority in the continual competition for available funds.

The federal appropriations occur in three major forms, Hatch Act appropriations, grants and contracts. The Hatch Act funds are annual appropriations which are conveyed to the states by a formula which is based upon number of farms, population, and people on farms. In the case of North Dakota, there are only 41,000 farms and 617,000 people—about 0.3% of the populations of the U.S.A. Consequently, for each one million dollars of federal appropriations, the North Dakota Agricultural Experiment Station receives about twenty thousand dollars.

The income received from local collections and grants to North Dakota's research program is very important. Significant among these are grants from the National Macaroni Manufacturers' Association, the North Dakota Wheat Commission and Cargill for durum research.

What is North Dakota's Contribution?

North Dakota's contribution is unique in many areas. It is the only state in the U.S. supporting a substantial program in durum research. It is the only state in the U.S. with a durum milling and processing facility for research. During the past decade, a considerable increase in durum production has occurred.

The benefits of greater durum wheat production accrue not only to the farm producer but to the grainmen, millers, and pasta manufacturers as well. With the advent of increased production in the past decade, came the increased opportunity for production over a greater geographic area—with the resultant reduction in risk due to inclement weather and the enhanced opportunity of selecting the quantities and qualities of durum wheat needed for both domestic and export trade. In fact, exports prior to 1960 were rarely as great as 5 million bushels per year; recently, they have exceeded 40 million and the outlook for exports is about 47 million bushels for the current crop year.

In 1962, it was written that ". . . durum research . . . apart from private industry, involves the part time work of about five men, three at North Dakota State University and two at Beltsville. . . ."[2]

Since that time, many changes have occurred. The Beltsville activities have been transferred to Fargo; and now about three scientists are working part time for USDA durum activities. These activities are closely associated with the six research projects currently involving the equivalent of four scientist man years and about ten man years of effort at the University.

Indeed, significant improvement in facilities, funding and numbers of people for durum wheat and product research is apparent! Because the equipment is highly specialized and costly, these are very beneficial developments.

Reviews of the plant breeding work will be presented by Dr. Leonard Joppa, a USDA staff member affiliated with the Department of Agronomy of North Dakota State University. Professor Orville Banasik will review the types of physical and chemical tests that are employed in selecting new durum varieties for future commercial production and utilization by the macaroni industry. Finally, Dr. David Walsh will review some phases of current research in the Department of Cereal Chemistry and Technology. In the event that you should desire further information concerning this brief review of activities at NDSU, reprints of papers and articles may be obtained by writing to my office or to the chairman of the Department of Agronomy or Cereal Chemistry and Technology.

In closing, I should like to indicate that a grant application for research work on nutrition studies of pasta products has been prepared and presented to the National Wheat Research Institute. To date, no response has been received. However, should this work be funded, it is proposed to involve an interdisciplinary research group in the areas of agronomy, cereal chemistry and technology, animal science, and foods and nutrition to elucidate some of the complex information needed for improved nutritional quality of pasta products.

Thank you for your kind attention.

References cited:

[1] After a Hundred Years, The Yearbook of Agriculture, 1962.

[2] A Durum Research Outline, K. A. Gilles. Mac. J. 44:13-17 (1962).

Planting Intentions

Farmers in North Dakota intend to plant nine percent fewer acres than last year of the principal crops. Decreases are indicated at 24% for flax, 20% for hard red spring wheat, 10% for durum wheat, 7% for sugar beets, 5% for corn, 3% for soybeans and 1% for potatoes. An increase in acreage is expected for barley of 11%, oats 10% and dry edible beans of 104%.

Standards for Meat And Poultry Products

The Department of Agriculture has issued a consumer reference list for meat and poultry products. They note that to be labeled with a particular name—such as "Beef With Gravy" or "Chicken Soup"—a Federally inspected meat or poultry product must be approved by the U.S. Department of Agriculture as meeting specific product requirements. Here are some of particular interest to the pasta industry:

Beef Stroganoff—At least 45% fresh uncooked beef or 30% cooked beef and at least 10% sour cream or a "gourmet" combination of at least 7.5% sour cream and 5% wine.

Burgundy Sauce with Beef & Noodles—At least 25% beef (cooked basis); enough wine to characterize the sauce.

Cannelloni with Meat and Sauce—At least 10% meat.

Capelletti with Meat and Sauce—At least 12% meat.

Chili Macaroni—At least 16% meat.

Chop Suey (American Style) with Macaroni & Meat—At least 25% meat.

Lasagna with Meat and Sauce—At least 12% meat.

Macaroni and Beef in Tomato Sauce—At least 12% beef.

Macaroni Salad with ham or beef—At least 12% meat (cooked basis).

Manicotti (containing meat filling)—At least 10% meat.

Meat Balls—No more than 12% extenders (cereal, etc.)

Meat Ravioli—At least 10% meat in ravioli.

Sauce with Meat or Meat Sauce—At least 6% meat.

Spaghetti Sauce and Meat Balls—At least 35% meat balls (cooked basis).

Spaghetti Sauce with Meat—At least 6% meat.

Spaghetti with Meat and Sauce—At least 12% meat.

Spaghetti with Meat Balls and Sauce—At least 12% meat balls.

Tortellini with Meat—At least 10% meat.

Poultry Noodles or Dumplings—At least 15% poultry meat, or 30% with bone.

Noodles or Dumplings with Poultry—At least 6% poultry meat.

Poultry Ravioli—At least 2% poultry meat.

Poultry Tetrazzini—At least 15% poultry meat.

Swanson Macaroni & Cheese

Campbell Soup Co., Camden, N.J. has introduced Swanson frozen macaroni and cheese in a 7-oz. single-serving size, with a suggested retail price range of 21-23¢.

Durum Wheat Quality Investigations at North Dakota

Orville J. Banasik

by Orville J. Banasik

Professor and Department Chairman, Department of Cereal Chemistry and Technology, North Dakota State University

THE exceptionally good quality of North Dakota's durum wheat did not come about by accident. The attainment of the high quality standards represented by Leeds and Wells durum has been a long and arduous task. Twenty years ago, we looked at quality horizons, especially in semolina color that we felt could not be improved upon. Yet, these thresholds have been surpassed by the quality of Leeds and if we look at some of the new selections currently under test at NDSU, Leeds may soon be a variety of the past.

Team Approach

In our team approach for the development of good quality durums for North Dakota, we are constantly being reminded of the needs of our domestic and foreign markets. Basically, these needs are very similar; that is, each market demands durums of high test weight, high vitreous kernel content, large kernels, good milling yield, maximum semolina color and acceptable processing and cooking properties of the pasta products. These objectives have been followed since we initiated a quality testing program in the Department of Cereal Chemistry and Technology over thirty years ago.

Although our major quality objectives have not changed, we have noted a considerable change in the evaluation procedures. For example, all processing methods, cooking and color evaluation procedures have been improved. All of our milling equipment, micro and macro pasta presses, instrumentation for measuring color or the determination of cooked spaghetti firmness has been replaced in the last 10-12 years. Some of these changes were brought about by improvements made by the pasta manufacturers and consequently, our technology had to keep pace.

Arduous Task

The development of a new durum variety is a long and arduous task. Several decades ago, the researchers at NDSU needed 10-12 years to create a new variety. Now it can be done in about 7 years. Although the time has been reduced because we are able to grow several crops a year, the amount of work involved still remains the same. Actually, the whole approach is a numbers game—the more samples we screen or test in the initial stages, the better chance we have for retaining large numbers of good quality durums in the advanced stages of our development program. The efforts to create new varieties must be on a continuing basis even though our variety situation looks quite good as the new selections currently under test will probably serve as replacements for Leeds, Wells and the new variety, Rolette. Quality research must keep pace with our competition if North Dakota is to remain a major supplier of durum wheat to the industry.

Our Department, in cooperation with the Department of Agronomy, uses a systematic approach in our quality evaluation program for durum variety development. There are four stages of testing, each designed to handle a certain size sample.

Stage one, which was added to our program this year, is primarily a screening method to eliminate poor kernel types and hopefully, poor color semolina at the earliest possible generation. This means that a large number of samples can be tested with a minimum amount of work. Only those new durums that would be equal to or better than the check variety would be advanced to the second Stage.

DURUM WHEAT
VARIETY DEVELOPMENT
Stage 1
SHORT ROW SAMPLES
Eliminate poor agronomic types

Eliminate those that do not equal the check variety

F_3-125 g.
1. Kernel Sizing
2. Micro Test Weight
3. Semolina color slick list*
4. Vitreousness

Advance to Stage 2

The F_4 durums would be evaluated for kernel size, micro test weight and per cent vitreousness. In addition, a color slick test is being developed for durum flour milled on a Brabender mill. The method appears to give a high correlation with semolina color as measured by Hunter Color Difference Meter. The Second Stage depicts the kinds of tests applied to new durums advanced

Stage 2
Eliminate poor agronomic types

Eliminate those that do not equal the check variety
F_5-F_7 250 g.
Micro Spaghetti
Nursery Yield
Trial Test

Advance on the basis of good quality performance, minimum of three years of tests.

from Stage 1. Since these nursery samples are grown in rod-row yield trials, a limited amount of seed is available for quality evaluation. Thus, they are milled on a modified Brabender mill, purified and spaghetti made by our micro processing unit. All nursery samples that do not equal the comparably grown check variety in quality are eliminated from further testing. After two or three years of nursery tests at several locations, the survivors (if any) are advanced to the Field Plot Yield Trial Tests. The new selection, along with named varieties, are grown on Branch Station plots located at Fargo, Langdon, Carrington, Minot, Williston, and Dickinson, North Dakota. Since these are larger plots, more seed is available so milling performance can be more accurately evaluated on our newly revised Buhler mill and pneumatic purification system. The next diagram shown this progression of quality evaluation as Stage 3. Spaghetti is made on our Laboratory Continuous Press. Processing and cooking properties are determined and are considered as part of the over-all quality evaluation of the sample.

Stage 3
Eliminate poor agronomic types

Eliminate those that do not equal the check variety
F_8-F_{10}** 10 lb.
Cont. Spaghetti
Processing, cooking
Test. Field Plot
Yield Trial Tests

Advance on the basis of good quality performance on two successive years. Prefer three complete years of quality data.

After two and preferably three years of tests, the selection, if still retained, will be considered for possible release by a variety release committee. The committee is composed of agronomists, plant pathologists and cereal chemists. Based upon their recommendations, the Department of Agriculture will decide if the selection will be increased for possible release or discarded. The final stage of development is shown as Stage 4.

F_{11} Southern Increase for Possible Release. F_{12} Contract Growing for Seed Increase.

The following quality tests are applied in our durum testing program:

Wheat	Kernel Distribution
Test Weight	Vitreousness
1000 Kernel Weight	Protein
Semolina	**Spaghetti**
Protein	Processing Properties
Milling Yield	Color
Color	Cooked Weight
Specks	Cooking Loss
Ash	Tenderness

Quality Results

The quality results on some of our named varieties and some of the advanced selections tested in 1971 are shown in the following four tables. Table I shows quality properties of Leeds and Wells, the new Canadian variety Hercules, and NDSU's new release, Rolette. From the data, it will be noted that Rolette is highest in test weight but lowest in per cent vitreous kernels. However, the 1969 and 1970 data did not show this. This may have been due to the unusual growing conditions in 1971 combined with a lower protein content. Hercules and Rolette show a large kernel size as indicated by the high 1000 kernel weight and the per cent of large kernels as shown by the kernel distribution. Table II shows the wheat protein, semolina properties and spaghetti characteristics for these four varieties. Leeds is highest in wheat protein, Wells is lowest in semolina yield, while Wells and Hercules are lowest in spaghetti color score. The cooking properties, as indicated by cooking loss and cooked spaghetti firmness, are judged satisfactory for all four varieties.

TABLE I 1971 DURUM FIELD PLOT SAMPLES
Averages, Four Stations
Fargo, Minot, Carrington and Langdon

Variety	Test Weight lbs./bu.	Vit. Kernels %	1000 Kernel Weight gm	Kernel Distribution L %	M %	S %
LEEDS	63.9	93	42.0	54	43	3
WELLS	63.2	81	39.1	38	59	3
HERCULES	63.6	89	46.7	66	28	6
ROLETTE	64.1	71	46.0	65	32	3

TABLE II

Variety	Wheat Protein %	Semolina Yield %	Semolina Specks 10 in.²	Spaghetti Color Score	Spaghetti Loss %	Spaghetti Firm. Score
LEEDS	13.0	56.3	21	9.3	7.5	3.99
WELLS	11.5	54.8	24	8.8	8.0	3.78
HERCULES	11.8	56.1	20	8.6	7.8	4.12
ROLETTE	11.9	56.3	23	9.1	8.3	3.37

Table III shows the kernel characteristics for Wascana (new Canadian release), some advanced NDSU selections, Leeds and Hercules. From this data, it shows that Wascana is the lowest in test weight, all the NDSU selections are low in vitreous kernels, and from the kernel distribution, Wascana has the highest percentage of large kernels.

TABLE III

Variety	Test Weight lbs./bu.	Vit. Kernels %	1000 Kernel Weight gm	Kernel Distribution L %	M %	S %
LEEDS	62.8	92	39.4	40	57	3
HERCULES	62.7	88	43.5	51	43	6
WASCANA	61.0	88	43.2	62	37	2
EXP'L. A	63.0	73	41.2	41	57	3
EXP'L. B	62.5	78	41.5	48	49	3
EXP'L. C	62.6	79	41.2	46	52	3
EXP'L. D	62.5	72	40.5	53	45	2

The remaining data on these durums are shown in Table IV. The North Dakota selections are all lower in protein. Wascana shows the lowest semolina yield, but produces the best color score of the seven durums shown. In fact, this new variety had the best color score of all the varieties and selections grown in the Field Plot test for 1971. Experimental "A" will probably be dropped from further testing because of its low color score. Tests will be continued on Experimentals "B", "C", and "D" because they all exceed Leeds in spaghetti color. The main concern on these three selections would be their low vitreous kernel content. Previous year's data did not indicate that these selections were deficient in this property.

TABLE IV

Variety	Wheat Protein %	Semolina Yield %	Semolina Specks 10 in.²	Spaghetti Color Score	Spaghetti Loss %	Spaghetti Firm. Score
LEEDS	14.2	55.1	20	8.9	7.5	4.31
HERCULES	13.2	54.4	19	8.8	7.8	4.33
WASCANA	13.7	53.7	23	10.0	9.3	3.74
EXP'L. A	12.2	55.4	21	8.6	7.8	3.93
EXP'L. B	12.9	55.5	18	9.5	9.0	3.50
EXP'L. C	12.8	55.1	19	9.9	8.5	3.84
EXP'L. D	12.7	53.7	19	9.3	8.8	3.64

Slack-Fill

FDA considers slack-fill regulations but is held up by lack of funds to do further study. The Fair Packaging and Labeling Act authorizes the agency to promulgate rules on non functional slack-fill in packaging and a preliminary study was contracted with 11 state agencies to determine the need for them. The completed study covered 6 categories: breakfast cereals, cookies, candy, cake mixes, dry dessert mixes, and macaroni and noodle products. The results showed that packages ranged from being completely full to being 80% empty. Seven per cent of the packages were also shown to be 1% or more short weight, a direct violation of the law. . . . The problem is that the preliminary survey did not distinguish between functional and non functional slack-fill. Functional slack-fill is where the package is completely filled at the time of manufacture but is partially empty at the retail level due to settling or other factors. Non functional slack-fill is when the container is not completely filled during manufacture. Even though the net content may be the same as stated on the package, non functional slack-fill is illegal

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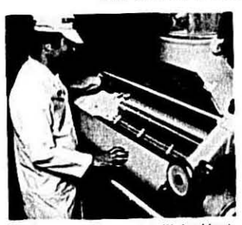

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Summary of Durum Research at NDSU

by David E. Walsh
Assistant Professor, Department of Cereal Chemistry and Technology, North Dakota State University, Fargo, North Dakota 58102


David E. Walsh

RESEARCH on durum wheat quality at the North Dakota State University Department of Cereal Chemistry and Technology has been conducted on a continuing basis since the program was initiated in 1939. Research has resulted in the development of high quality durum wheat varieties for the North Dakota farmers to grow as well as an increase in scientific knowledge of durum wheat and its products. The current work on durum quality can be divided into four main areas of research:

1. Research to screen durum plant breeders crosses for quality.
2. Development of objective techniques to measure the quality of durum products.
3. Biochemical research to seek the chemical basis for quality of durum products.
4. Process research to study the practical problems of the durum processing industry.

Durum Varieties

The research to select high quality durum wheat varieties from plant breeder samples has been conducted on a routine basis since the beginning of durum research at North Dakota State. Over the years, the program has been conducted in cooperation with the Agronomy Department at North Dakota State University and the U.S. Department of Agriculture. Nearly all of the durum wheat varieties in commercial production in the United States for the past 20 years have been selected in our laboratory. In recent years, Lakota, Wells, Leeds durum varieties were the result of the work at North Dakota State University. The newest durum variety, Rolette, was released jointly on December 1, 1971, by the North Dakota Experiment Station and the U.S. Department of Agriculture. Since nearly all of this year's crop of the new variety will be used for seed, it will be two years before large quantities of Rolette wheat will reach commercial processing channels.

New Methods

Another phase of the research at the Department of Cereal Chemistry involves the development of objective methods of measurement for the quality of durum products. To date, a method for measuring the color of dry spaghetti and an instrumental technique for measuring the firmness of cooked spaghetti has been developed. A description of the color method was published in August 1970 in the MACARONI JOURNAL and the technique for measuring firmness was published in the July 1971 issue of CEREAL SCIENCE TODAY. Continued research in the area of methods development is planned. Future work includes new techniques to develop a precise method for measuring the vitreousness of durum wheat.

Basic Research

The basic research program of the Department of Cereal Chemistry and Technology has involved a number of projects to characterize the biochemical nature of durum wheat. Enzymes, protein and lipids of durum semolina have been investigated. Recently, an investigation of the biochemical changes which occurred in durum wheat as a result of sprouting was conducted. Another project is currently underway to determine electrophoretically differences among the protein of high and low quality durum wheats. Basic research of this nature may not yield immediate answers to the practical problems of the macaroni industry. However, basic research today is necessary to provide the information for practical developments of tomorrow's industry.

Process Research

Research at the Department has also included projects of a practical nature. In this phase of our work we have taken a look at several problems of the spaghetti processing industry. One recently completed project was a study of the influence of the extruding on spaghetti quality. Temperature, extrusion rate, pasta absorption, and vacuum were varied on a semi-commercial scale continuous extruder, and the resultant spaghetti was tested for quality. The data, after subjected to regression analysis by computer, showed that color as well as cooking quality was dramatically affected by extruding conditions. To characterize the relation among processing conditions, a linear programming matrix was devised to show the quality changes as well as the processing limitations of the extruder. Solution of the matrix gave the optimum conditions for extruding spaghetti of optimum quality for our laboratory extruder. Excellent quality spaghetti was produced when the laboratory extruder was set according to the computed conditions.

The final and most important phase of the project is yet to be done—a commercial scale test of the L.P. system. We are actively seeking macaroni manufacturers who are willing to cooperate in testing the L.P. system.

In another project, the influence of food emulsifiers on quality is being tested. A number of new food emulsifiers are under consideration by the FDA for inclusion in the standards for macaroni products. Although the project is only partially completed, several emulsifiers were shown to improve the cooking quality of spaghetti. Glycerol monostearate (included in the FDA standards) and sodium stearyl lactylate (under FDA consideration) increased the firmness of cooked spaghetti. Additional data are being collected on a number of other food emulsifiers which also appear effective in improving cooked spaghetti quality.

Recently a new project was started to study microbiological aspects of pasta processing. In this research, survival of **Salmonella** and **Staphylococcus** bacteria under spaghetti extruding, drying, and storage conditions were examined. Bacteria of known types were added at the mixing stage to an egg solids-semolina mixture at the rate of 1,000,000 bacteria per gram of ingredients. The mixture was extruded at varying rates, vacuum settings, and temperatures. The survival of the organisms was determined at each step in the spaghetti making process.

Initial data showed that **Salmonella typhemureum** was destroyed during

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Summary of Research—

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spaghetti extrusion. However, subsequent testing with a different type of **Salmonella** which was isolated by the FDA from a contaminated egg product revealed that only a partial kill of the bacteria was achieved during extrusion.

The most recent results indicate that when extruded, a dramatic decrease in **Salmonella** survival in spaghetti occurs if the shearing action of the auger and temperature of the extrusion press is adjusted properly.

Research on the survival of **Staphylococcus** in innoculated spaghetti has revealed that the bacteria is much more resistant to destruction by extrusion than **Salmonella.** Extrusion and drying fails to significantly lower the total counts of viable **Staphylococci** in the samples. Instead, increases in **Staphylococcus** plate counts are noted for the innoculated product during the drying cycle.

Future Research

Research on **Staphylococcus** and **Salmonella** will be continued and methods of minimizing the survival of these organisms will be sought. The work to select high quality durum varieties from new durum crosses will be expanded so that more new lines can be tested. New projects will include nutritional research to develop high quality durum wheat macaroni products with higher protein contents and improved nutritional and eating quality. Another new project will be an investigation to determine if insect eggs are destroyed during spaghetti extrusion and drying.

Durum Plant Breeding

Dr. Leonard R. Joppa, U.S. Department of Agriculture Agronomist located at North Dakota State University, discussed durum breeding at the Seminar on Wheat.

He noted that early varieties of durum were introduced by Dr. Mark Carleton from Russia. At first these were used without change. Later a few selections were made but there was no formal breeding program until the USDA in cooperation with North Dakota Agricultural Experiment Station established one with Dr. Glenn Smith in 1928.

The Canadian government began breeding durum wheats in the 1940's and developed Stewart 63. But this program did not become highly productive until the 1960's.

The Rockefeller Foundation began breeding programs in Mexico in the early 1960's but emphasized yield rather than quality. Current varieties developed by their programs are not adapted to northern U.S. and Canada because of poor quality and lack of disease resistance.

Dr. Leonard R. Joppa

In 1969 North Dakota assumed responsibility for durum breeding with the continued cooperation of the U.S. Department of Agriculture. The program uses several yardsticks in developing agronomic characteristics:

Yield is of primary interest to the grower. His net return depends on the number of bushels produced per acre and the selling price. With a fixed farm size, yield becomes all important.

Test weight is an indicator of milling yield in any given variety of durum. Hence high test weight is associated with high milling yield and has been incorporated into the grading standards by the millers.

Larger Seed Size

Another yardstick is the **per thousand kernel weight.** European millers were critical of the small seed size of Wells and Lakota durum wheat. Consequently a major effort was made to increase seed size and the variety Leeds was a considerable improvement.

Early maturity is desirable since the longer a crop remains in the field the greater the probability that it will be affected by adverse weather conditions such as rain, hail, and frost.

Height and lodging are considered by the agronomist because tall varieties have a greater tendency to lodge than short varieties. However, height and lodging resistance are not synonymous. Some short strawed varieties have weak straw and may lodge worse than some tall varieties. The semidwarf wheats have short straw and when strong stems are added they should be lodging resistant even under very high yield conditions. In general, the semidwarf genotypes have not been shown to be superior because of any other attribute. High yields, disease resistance, and other qualities can be obtained from tall varieties.

Disease resistance has been the single most important reason for change in varieties during the past twenty years. Perhaps the greatest contribution the plant breeders have made were the development of rust resistant varieties. In 1950 the U.S. produced about 37 million bushels. The rust epidemic of 1952 and 1953 reduced this to 22.5 and 13 million respectively. Only 5 million were harvested in 1954. Langdon durum was released in 1954. As seed became available production began to climb and reached 38.5 million by 1956. Langdon was partially susceptible to 15B6 stem rust and was replaced by Lakota and Wells in 1960. These varieties are resistant to nearly all known races of stem rust. Leaf rust has not affected durum production significantly. Current North Dakota varieties have good resistance to this disease. The Canadian varieties Hercules and Wascana are partially susceptible.

Other leaf diseases such as Septoria sp. and Pyrenophora sp. cause leaf blights which may affect yield and quality of durum wheat in some years. Wells, Lakota, Leeds and Rolette have fair to good levels of resistance. The Canadian varieties are more susceptible. The Mexican varieties such as Oviachic 65 are very susceptible to leaf diseases in North Dakota.

Vital Program

The durum breeding program at North Dakota has on occasions such as the rust epidemic of 1952-53 saved a valuable crop by developing resistant varieties. Significant contributions to the improvement of quality have also been made such as the large seed size and high color of Leeds, making this variety the standard of quality all over the world.

U.S.D.A. Publishes Amendments to Egg Standards

The States had sought retention of a so-called "methylene blue" bacterial test, and FDA had objected to use of this test. USDA said the test would not be recommended, but that some benefit might be derived from its use.

USDA said the requirements are intended, "through State adoption and enforcement, to promote uniformity in State dairy laws and regulations."

A series of amendments to the regulation governing inspection of eggs and egg products, based on more than the 20 comments on proposals published Feb. 12, was published April 1 by USDA.

USDA clarified its regulation on addition of water to egg products to "indicate that it applies only to liquid and frozen eggs, and the water indicated on

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Work of the North Dakota State Wheat Commission

Paul E. R. Abrahamson, Administrator
Bismarck, North Dakota

Paul E. R. Abrahamson

THE North Dakota State Wheat Commission was created by law passed by the 1959 North Dakota legislature and became effective July 1, 1959. It is funded by a two-mill per bushel levy paid by the producer on all wheat, including durum, and collected by the buyer at first point of sale. These funds enable the commission to carry out a program of market development, promotion and education. The commission as such does not buy or sell wheat or durum. The work and program of the commission is to hopefully bring about such conditions or climates, so to speak, to encourage and enhance maintaining and increasing the markets for the classes of wheat grown in North Dakota, namely hard red spring wheat, durum and some quality hard red winter wheat.

Purpose

The commission consists of seven wheat growers. The state is divided into six districts, each of which the wheat producers elects a member to the commission for a term of six years. The seventh member at large is appointed by the governor, likewise for a term of six years. The office of the commission is in Bismarck, North Dakota. The purposes and duties of the commission as per the law include the following:

1. To foster and promote programs aimed at increasing the sale, utilization and development of wheat markets both home and abroad.
2. To publish and disseminate information on the value of wheat and wheat products for any purpose which they are valuable and useful to both processor and consumer.
3. To search for and promote new uses of wheat and wheat products.
4. To contract and cooperate with any person, firm, state or federal department or agency for executing programs of research, education and publicity.
5. To accept donations of funds, property and services or other assistance, financial or otherwise, from federal, state and other public or private sources for the purpose of aiding and promoting the work and objectives of the commission.
6. To promote N.D. opportunities as afforded by the development of the St. Lawrence Seaway.
7. To seek improvement in the export quality of wheat.

Great Plains Wheat

Following one years activities and experience the North Dakota Wheat Commission affiliated with the regional wheat promotion organization—Great Plains Wheat, Inc. now based in Washington, D.C. and consists presently of six wheat producing states—Kansas, Nebraska, Colorado, Oklahoma, South and North Dakota, with Texas hopefully soon to affiliate. Western Wheat Associates have their location in Portland, Oregon. This regional wheat promotion organization consists of the wheat growing states of Washington, Oregon, Idaho and Montana. GPW, Inc. contracts with WWA to carry out U.S wheat market development and promotion programs in the Far East Asiatic areas, Japan, the Philippines, Taiwan, Hong Kong, Korea and such other countries. GPW, Inc. confines its market development to Europe, Africa and South America areas. Each regional wheat organization cooperating and supplementing the market development activities with the other and to include all U.S. classes of wheat. The work or program of the commission is of a threefold nature.

1. Market and development and promotion
2. Research
3. Public relations and education.

Market Development

Market development and promotion activities includes development of export and domestic markets. Wheat producers are to be commended for their success, especially in the export market. Ten years ago U.S. wheat sales abroad for dollars were 130-140 million bushels annually. These past five years sales of U.S. wheat for dollars have increased to 350-450 million bushels and more each year. This is a threefold increase in about one decade. The promotional efforts by producers through their wheat commission affiliated with the regional organizations, have been instrumental in achieving this high level of cash wheat exports. The absence of the producers promotional efforts through their state and regional organization cooperating with the USDA most assuredly our carryover and stock piles of wheat would be far in excess of those in the 50's and early 60's.

What progress has been made with the two classes of wheat grown in North Dakota exportwise? For purpose of illustration, take the first three years of the sixties our cash spring wheat exports fell into the range of 20-30 million bushels compared to the last three or four years, 1967-68 to 1970-71, of 80-110 million bushels, a threefold increase of cash spring wheat exports. North Dakota annually produces half or more of the spring wheat grown in the U.S. We are vitally concerned with continued high levels of export. This assuredly helps keep our North Dakota agri-production plant viable, upon which our economy is basically dependent.

Durum Exports

Let us next review the cash exports of durum for the same period. For the first three years, 1962-63 to 1964-65, the more normal U.S. durum exports ranged from 3 to 8 million bushels annually. There was one exception, 1963-64 when the USSR purchased 20 million bushels increasing our total cash exports to 28 million bushels. The past three years our cash durum exports ranged from 34-45 million bushels. Durum subsidy bookings this year to date exceed 46 million bushels, assuring us a continued cash export durum market. This is of real significance to North Dakota economy because 85% of all the U.S. durum produced annually is grown in North Dakota. This emphasizes the importance of durum exports as well as hard red spring exports to our state's economy.

The increased movement of spring wheat to the West coast in recent years (1965) has played an important role in our state's overall increase of spring wheat exports. Prior to 1965, our spring wheat exports via West Coast ranged from one to four million bushels annually, compared to the more recent years of 20-37 million bushels annually.

Transportation

Transportation rates play an important role in movements of wheat. This

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N.D. Wheat Commission—

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was early recognized by the North Dakota Wheat Commission. By initiated and concerted effort by the commission, North Dakota Public Service Commission and many other organizations and agencies, this now reduced export freight rate stands as a major achievement for North Dakota wheat producers.

For durum movements westward, the story is very similar, although the volume of durum compared to hard red spring wheat is much smaller but the same trend of increased exports is apparent. The westward movement of spring wheat and durum has to a degree helped open up a second market so to speak by releasing our production to the Far East countries for exportwise and thus reducing the pressure pricewise at the eastbound conventional markets.

Trade Teams

Hosting foreign wheat trade teams is an activity, hopefully to maintain and increase export sales. This last year we had 3 trade teams visit North Dakota. They were from Japan, the United Kingdom and West Germany. The North Dakota Wheat Commission has hosted a total of 53 wheat trade teams to date. Also many individuals from foreign countries interested in our classes of wheat have been hosted. The makeup of these groups are well thought of and influential people in their respective countries. Many are decision makers as to where their countries buy wheat and the type of wheat that is purchased. These foreign interest wheat people are no different than we as buyers of farm equipment for example. We first want to look it over and compare it to other makes for durability, maintenance, cost and ease of repair. So it is with these foreign visitors or potential wheat buyers. They are (1) desirous of seeing the crop growing on the farm, (2) our harvesting and storage facilities, (3) the marketing of the wheat through country elevators, (4) our transportation and handling facilities, (5) to learn of the research being carried out at our land grant universities as well as private researchers to determine what we are doing to maintain and improve the quality as well as the uniformity and stability of stocks of our classes of wheat.

For the like reason of hosting potential foreign buyers of our classes of wheat, we visit their countries contacting buyers, handlers or merchandizers and government personnel. The purpose is to evaluate and keep our market development and promotion programs current, effective and competitive. We have on a number of occasions made 'technical personnel' available to certain countries to discuss and resolve problems and misunderstandings in case of specific wheat sales and deliveries. This has been a very meaningful service to wheat importing personnel. We hope to continue and improve on this type of marketing service. This service will be tied closer to the continuation of our annual 'Crop Quality Surveys' with greater emphasis of making the printed reports available annually at earlier dates. These reports have been well received by personnel in countries associated with the task of acquiring and importing wheats available on the international worldwide wheats.

Domestic Promotion

Domestic market promotion has involved a number of activities and means, however the more successful and popular may be listed as follows:

1. Use of color films (A) "Hard Red Spring" viewed by some 38,881,521 people via group showing, television, airport cinemas, theaters, schools and colleges, (B) "Durum—Standard of Quality" used and distributed in the same manner to date viewed by 47,046,776 people, (C) "Macaroni Menu Magic" has also had a popular demand with an estimated 538,231 viewers to date, (D) several other films, including film strips such as "Quick Breads," "Tricks & Treats with Macaroni Foods," a complete listing of printed material available—refer to our brochure, (E) presently the NDWC is sponsoring another new color film, "North Dakota Wheat in the World Market" pointing out the many and sundry phases involved in world trading. This will be usable by producer groups to develop a greater appreciation of the export or international commerce of wheat. It is hoped it will serve as a useful teaching market tool in our schools, FFA, 4-H and other youth organizations. We hope it will fulfill a place in the college agricultural marketing curriculum.

2. The distribution of wheat promotional and nutritional information, including recipes is in excess of some 200,000 pieces annually throughout the U.S.

3. Cooperating with the National Macaroni Manufacturers Association and Institute, the Durum Flour Institute in the HRI program which has for its objective the promotion of macaroni products or foods in hotels, restaurants and institutions. It is a known fact that one of three meals is eaten away from home in America today. It is only prudent to exploit this area. As meals and snacks with accepted recipes become appealing it cultivates those same tastes of meals and foods in the home. This indeed has proven in our opinion as a unique and worthwhile durum-macaroni promotion activity. This is an example how producers, millers and manufacturers may cooperate in the promotion of an industry of concern to all. Judging by the trend of increasing pasta food consumption, the program without question is making a contribution to the overall promotion activity of pasta foods.

4. The cooperative "Durum Macaroni Safari" project of 1970 proved to be an activity that provided a basis for very major publicity in behalf of durum pasta made foods. Cooperating were the National Macaroni Manufacturers Association, North Dakota Mill and Elevator Company and the North Dakota Wheat Commission.

Research

Research: We have had and continue having a number of studies underway in Cereal Technology Department, Agricultural Economics Department, Agronomy Department at N.D. State University and also with the Upper Great Plains Transportation Institute in Fargo. In cereal technology they assist with our annual "Crop Quality Surveys" for hard red spring and durum these past ten years, as also do local country elevator managers and the N.D. extension service and producers. Another project in this department has for its objective "to determine the qualities in hard red spring wheat that make it a superior wheat." Information here gained will be used to breed these genetic characteristics into new future varieties to improve the desirability of our classes of wheat. Durum is here not overlooked. In the Agronomy Department, effort is directed toward development of hybrid wheats to assure North Dakota wheat producers will be current in this area. In the Department of Agricultural Economics, the commission supports a study to determine the potential markets and problems encountered in marketing our hard red spring and durum at home and abroad. Presently, we have a project underway—monitoring the "impact of the new revised Canadian grain standards affecting the sale and export of U.S. hard spring wheat." Because of a state of confusion regarding the quality of wheat varieties another project has been initiated namely an annual survey of "Variety and Yield" cooperatively with the Agronomy Department and the Federal Crop and Livestock Reporting Service. The Transportation Institute is gathering facts and figures to support efforts to

(Continued on page 28)

N.D. Wheat Commission—

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obtain more favorable and practical rates and better efficiency of available transportation facilities in our land-locked state.

Education and Public Relations

We welcome opportunities to appear at any and all state public gatherings to disseminate current wheat market information. To date we enjoy pleasant relations with the trade and also USDA. This has proven to be most helpful.

"Wheat Facts," an assembly of market statistics, is updated monthly and made available to agricultural organizations and agencies in the state interested in the marketing of wheat. "Wheat Facts" provides information regarding exports, prices, the competitive wheats, production by classes in U.S., total world wheat production by countries, subsidies, carryover stocks by classes. The latter item we hope to have more refined on a quarterly basis. Other topics and facets dealing with the marketing of wheat are also included with the "Wheat Facts." It is our thinking that the more our producers are informed about wheat marketing development efforts, including current market information, the more serviceable and effective will be our program.

We use our "Progress Report," a bimonthly publication, to help disseminate wheat marketing facts and call attention to current and timely subjects that have an impact on the marketing of wheat. "Work stoppage in our marketing and transportation facilities including dock strikes, have been mentioned. The latter has this past year undermined the stableness of U.S. as an exporter of wheat aside from the loss of sales of millions of bushels, lost forever. This "Progress Report" is only one legal size page with a 40,000 copy mailing to producers and allied agricultural interests. Our response has been very good and the request has been made it be kept short and brief.

Other Needs

There are other areas that demand attention.

(1) More precise market flow pattern of our classes of our wheat and durum. This will provide guidelines in broadening our efforts in the marketing of these classes of wheat.

(2) Support and help initiate a comprehensive research effort to "learn the human nutritional value of wheat." It was encouraging to learn recently that a Dr. John H. Knowles will become the new president of the Rockfellow Foundation this July 1, 1972. He has extensive training at Harvard College and Washington College of Medicine. Perhaps here may come some direction toward learning more the human nutritional value of wheat.

(3) We support the need in the sponsorship of a fast, accurate quality evaluation test for wheat. This may be a helpful basis in pricing of wheat.

(4) We accept our share of responsibility in creating the more true cost image of wheat and wheat foods to the consumer.

(5) We feel a more intensive study ought to be made of our wheat marketing system. Especially in those areas that will help reduce cost of transportation and make for more efficient use of facilities now available.

Processed Eggs

A total of 48,106,000 dozen shell eggs were broken in the U.S. during the period Feb. 6-Mar. 4, 1972 under the Egg Products Inspection Act carried on the USDA. The quantity was down 3 percent from the previous 4-week period. Decreases by regions: Western 1%; South Atlantic 4%; North Atlantic 6%; and North Central 7%. The South Central region was up 15%. Edible liquid from the shell eggs broken totaled 60,436,000 pounds and consisted of 30,012,000 pounds of whole eggs, 17,609,000 pounds of white, and 12,815,000 pounds of yolk. Ingredients added at the breaking plants totaled 1,896,000 pounds.

Liquid egg used in processing during the 4-week period consisted of 36,148,000 pounds of whole eggs, 24,976,000 pounds of white, and 15,024,000 pounds of yolk. Ingredients added in processing totaled 2,693,000 pounds.

Total Liquid Egg Products	Pounds
(including ingredients added)	23,099,000
Whole Plain Egg	8,637,000
Whole Blends	2,178,000
Whites	9,099,000
Plain Yolk	2,547,000
Yolk Blends	638,000
Frozen	28,401,000
Whole Plain Egg	13,110,000
Whole Blends	3,520,000
Whites	3,785,000
Plain Yolk	1,514,000
Yolk Blends	6,463,000
Dried Eggs	6,502,000
Whole Plain Egg	1,110,000
Whole Blends	2,122,000
Whites	1,509,000
Plain Yolk	985,000
Yolk Blends	776,000

See Egg City

Invitations have been extended to delegates at the 68th NMMA Convention to see the 3,000,000 pampered hens at Julius Goldman's Egg City, July 21.

Egg Standards—

(Continued from page 22)

the label includes that added to the ingredient of an egg product (in excess of the normal water content of that ingredient)."

A proposed provision for decharacterizing or coloring reject eggs was changed to allow either denaturing or "adequate controls" on the shipment and receipt of the eggs. Processors had noted that the coloring or decharacterizing the eggs made them undesirable for animal use. A requirement that pipelines would have to be cleaned every four hours was changed to "as often as necessary to maintain them in a sanitary condition." USDA refused to change a requirement that a separate refuse room would be necessary for egg products plants.

High Protein Meat Substitutes Predicted

By the 1980's many Americans will be eating "ham" made from soy protein, boneless "chicken" from cottonseed protein and "hamburgers" from peanut protein, says Dr. Herbert Stone, director of Stanford Research Institute's (SRI) Food Science Department.

In an article in SRI's quarterly, "Investments in Tomorrow," Stone said: "A few years ago, high protein meat substitutes made from low-cost plant sources retained an aftertaste of the original plant flavor, but now their taste, as well as their texture, can be made virtually indistinguishable from that of meat."

Stone adds that meat substitutes are still expensive, but technological refinements and volume production will make them cheaper than meat.

The most common plant source for protein is the soybean, which grows abundantly in the United States and has a nutritional value approaching that of meat. Many other plants can be used as well, such as peanuts, safflower, sunflower, cottonseeds and even fungus.

One fungus, Stone says, the mushroom, has a higher ratio of protein to fat than does meat—10 to 1 compared with 1 to 1 for meat.

Petroleum yeast is another possible source of protein. Originally a problem to oil companies because it degraded gas and oil during storage, it has now been found edible—at least for animals. Some day, Stone predicts, it may find a place on the dinner table.

Stone forecasts that the consumption of protein concentrates in the United States will grow from about 500 million pounds today to five billion pounds by 1985.

Chicken Is Cheaper

"Today, while we're meeting here in New Orleans, the Cost of Living Council is meeting in Washington. They'll be pointing their fingers at food prices and castigating the so-called middleman."

That was the opening volley from Hugh Purnell, the young businessman from Tupelo, Miss., who is board chairman of the Poultry and Egg Institute of America. On April 12 the Institute opened its three-day Fact Finding Conference at The Rivergate Exhibition Center.

Attention On Beef

The public's attention is focused on the price of beef.

"But look at our products," Purnell said. "Look at the price of broilers, eggs and turkeys.

"Back in 1955 consumers were paying 55¢ a pound for broilers. (That's the average retail price reported by the Bureau of Labor Statistics.) In February this year they were paying an average of 42¢ a pound for broilers.

"That's almost 25% less—for better chickens," Purnell said.

"In 1955 consumers were paying 61¢ a dozen for Grade A Large eggs. In February this year they were paying 49¢ a dozen.

"That's almost 20% less—for better eggs.

"I don't think I have to remind you of what's happened to the price of turkeys," Purnell said. "You can remember when many consumers couldn't afford a turkey, even for Thanksgiving. And someone in the family had to spend half a day taking out the pin feathers! Today, if they want to, consumers can buy turkeys already stuffed—for less money than they used to pay when they went to the butcher shop and looked over the turkeys hanging by their heels from meat hooks.

"Here are 207-million consumers whose disposable income per person in 1971 averaged $3,773, almost twice what it was in 1960! They're buying better broilers, better turkeys, and better eggs. And they're buying them for less money.

"There's your measure of what our industry is doing for the consumer," Purnell said.

Competition, Comsumer's Friend

He cited the comments of George Stigler of the Graduate School of Business, University of Chicago, who said, "The government can't help the consumer. The consumer's friend is competition."

Purnell pointed out that the poultry and egg industry has used subsidized feed to produce poultry and eggs whose prices have not been subsidized or controlled.

"The result has been hard on people in the poultry and egg industry," he said. "But it's been good for the consumer!"

Eggs are on Plentiful Foods list.

Henningsen Foods Awarded Presidential "E"

Henningsen Foods, Inc. was awarded the Presidential "E" for excellence in exporting on March 20. Victor W. Henningsen, Jr., president of the firm, accepted the award from George Payne, regional director of the U.S. Department of Commerce. In attendance at the festivities were the mayors of Omaha, David City, Ravenna, and Norfolk, Nebraska as well as an administrative assistant to the governor of Nebraska.

Henningsen Foods is only the second Nebraska-based company to win the award since its inception and Mr. Payne pointed out in making the award that fewer than 1,000 firms had received the award since it was started ten years ago, although there are more than 300,000 manufacturing firms eligible.

To qualify for the "E" award, a firm must have a significant part of its sales in the export market, must have demonstrated unusual techniques of sales promotion in the world markets, and must show that export sales have increased over the three year period prior to consideration.

Started in 1889

Henningsen Foods is a direct successor to the Henningsen Products Co., founded in Superior, Nebraska in 1889. The company has its corporate headquarters in White Plains, New York and is the world's largest processor of dried egg products which are used in the manufacture of over 4,000 grocery products throughout the world. The company processes over 1,500,000 cases of shell eggs, which is over 540,000,000 eggs a year.

The company also manufactures a wide variety of dried chicken, beef and ham products that are used by the dry soup mix industry and casserole preparations and other convenience foods.

Another division of the company manufactures and markets mechanical egg-breaking and washing equipment, spray drying systems and a complete line of egg conveying and lifting devices. The latest device developed is an automatic egg cooker and peeler that hard cooks and peels 1,400 eggs per hour which is now being introduced to the industry.

Henningsen Foods, Inc. maintains processing plants in Nebraska at David City, Norfolk and Ravenna and has its production headquarters in the Xerox Building, in Omaha. It also maintains operations in Malvern, Iowa and Springfield, Missouri, where its Research and Development Center is located.

Technological Triumph

The traditional egg supplier to the European Market until World War II had been China. Following the War, the United States, led by Henningsen Foods, Inc., began to displace the Chinese product, primarily through improved quality and technology. In 1962, the formation of the European Economic Community shut out a high portion of the United States exports of poultry and eggs. However, Henningsen has been able to continue its exports primarily because of the inability of either the Common Market or China to replicate the quality and functional characteristics of its products.

Acknowledgement

Mr. Henningsen, in acknowledging the award, stated: "We are delighted with this recognition of our export efforts and the fact that they not only are beneficial to our company, but to the economic health of our country. We hope to improve the volume of our exports but much will depend on how tough Congress and the Administration will get in handling those countries who demand that our borders be open to their products but that their borders be closed to ours."

Transfer

Henningsen Food, Inc. announces that Patrick L. McBride, head of the company's quality assurance department at David City, has been transferred to Henningsen's Research & Development Center in Springfield, Mo. He will be involved in the research and development programs relating to egg solids and dehydrated cooked meats.

Plan to visit Lawry's Foods Tourist Center in Los Angeles following the Coronado convention.

Accident Costs: Tangible—Intangible—Smangible

Unfortunately intangibility does exist in budgeting accident costs. It exists by the mere fact that an employee may be killed at the very moment the safety director is making his "pitch" to whomever he reports. The best equipment and the safest procedures will never insure the safety professional a comfortable or placid state of mind. One accident can shatter the best record into a thousand irreparable pieces. One can only assume that without a program, things would have been much worse. How much better with a program, is really an intangible.

Nevertheless, there are very tangible matters and costs related to accidents. For example, if a company operates on a 5% net profit basis, it means that for every dollar spent on an accident, $20 will have to be provided to pay for it. A $5000 accident cost will require a gross earning of $100,000 to pay for it. This means that a modern vessel operating at a cost of about $4000 a day, would have to operate 25 days for nothing to gross the $100,000. It is obvious then that any really serious accident could put a vessel out of business for a critical length of time.

What it boils down to is that everyone in an organization, especially the freight solicitor, is struggling unwittingly against the tide just to pay for the accidents—let alone earn net revenue. So when he bounces into the boss' office with a $100,000 freight booking ($5000 net), it may have to be discounted 20 times or more by a costly accident. It will take a lot of sidewalk pounding to get it back.

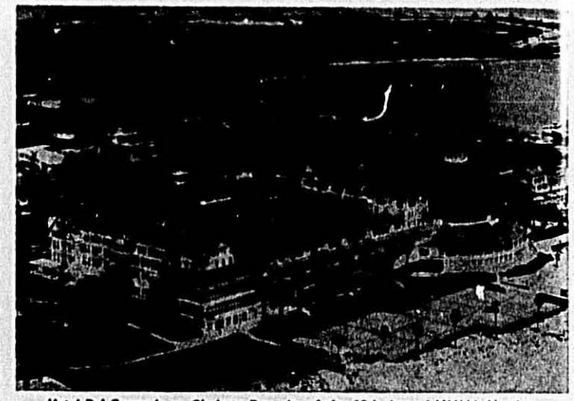
Only when we equate accident cost with gross revenue and net profit will we fully understand the draining effect that personal injuries and fatalities have on an otherwise productive operation. The next time you record an accident, ask yourself how many revenue dollars it will take to pay for it. A good rule of thumb is 20:1. That's "smaginable!"

—Capt. Harold Rosengren,
National Cargo Bureau

OSHA—First Aid

One of the questions asked by an OSHA Compliance Officer who will inspect your company operations will be on first aid personnel.

The OSHA regulations require that first aid personnel must be at the worksite if no infirmary, clinic, or hospital is in the proximity and that it is the employer's duty to see that workers are trained in first aid.



Hotel Del Coronado on Glorietta Bay, site of the 68th Annual NMMA Meeting.

The new American Red Cross multi-media system for teaching standard first aid has been reorganized as acceptable training for these purposes. This multi-media instructional system was developed by the American Telephone and Telegraph Company in cooperation with the American Red Cross for training of Bell Telephone employees. After 14 months of research, then used effectively to teach thousands of telephone workers, the course materials were donated to the American Red Cross by AT&T.

The program uses filmed scenes of accidents to introduce major first aid problems along with filmed demonstrations of first aid skills. Practice sessions, supervised by a certified instructor are carried out by the trainee who charts his progress through a programmed workbook. The students are then tested on the subject matter.

This new approach to first aid training enables the American Red Cross to present an approved instruction program during one full working day instead of the Ten-Hour session of lectures and demonstrations.

Where to Write

If you live in Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, Virginia, or West Virginia, you should write or contact the Eastern Area, American Red Cross, 615 North Street, Asaph Street, Alexandria, Virginia 22314.

If you live in Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, or Tennessee, write or contact the Southeastern Area, American Red Cross, 1955 Monroe Drive, N.E., Atlanta, Ga. 30324.

If you live in Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, South Dakota, Texas or Wisconsin, contact or write to the Midwestern Area, American Red Cross, 4050 Lindell Blvd., St. Louis, Mo. 63108.

If you live in Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, or Wyoming, write or contact the Western Area, American Red Cross, 1550 Sutter Street, San Francisco, California 94101. If you live in other areas, contact the American Red Cross National Headquarters, Washington D.C. 20006.

As part of the overall program, arrangements can be made to have one or two employees or supervisors attend a three-day seminar and become certified instructors. The instructors could then present the multi-media one-day program to your employees.

Reporting Injuries And Illnesses

Initial notification has been sent to some 14,000 companies by the Department of Labor, that they will be required to report occupational injuries and illnesses occurring in 1971.

While all employers covered by OSHA are required to maintain records of occupational injuries and illnesses, only a selected group will be required to submit data to the Department of Labor. This initial call for statistics will be reported under the ANSI Z1.1 method of compiling such data. This data will be required for two 6-month periods: January 1 through June 30 and July 1 through December 31.

The reporting form to be sent to the 14,000 companies in January will be for the last half of 1971 based upon the recordkeeping provisions of OSHA using OSHA Form No. 100 (Log) and Form 102.

Tentative Convention Plans Announced

The 68th Annual Meeting of the National Macaroni Manufacturers Association at Hotel Del Coronado, Coronado, California (suburb of San Diego) will be concerned with **Responsibilities on Business Issues.**

Tentative Program:

Sunday, July 16
2:00 p.m. Board of Directors Meet.
4:30 p.m. Tijuana Tour: Time for shopping, Mexican Dinner, Jai Alai games; return by 10:30.

Monday, July 17
9:00 a.m. Industry Responsibilities.
The President's Report.
The Treasurer's Report.
Standards & Nutrition.
Product Promotion for Consumers; for Hotels—Restaurants—Institutions.
Afternoon free.
7:00 p.m. Suppliers Social.
8:00 p.m. Italian Dinner Party featuring the Mario Singers.

Tuesday, July 18
9:00 a.m. Distribution Matters and Responsibilities to Consumers. A food editor will comment on the manufacturer's responsibilities to the consumer.
A grocer will discuss the chain store's responsibilities to the consumer.
Another grocer will discuss the chain store's responsibilities to manufacturers. Time for discussion.

In Defense of Advertising

Afternoon tour of San Diego Zoo.
7:00 p.m. Suppliers' Social.
No planned dinner function.

Wednesday, July 19
9:00 a.m. Responsibilities for Profits.
The Economic Outlook.
The Impact of Washington on Business Operations.
A panel of macaroni manufacturers discuss responsibilities of making a profit for stockholders, employees, community.
Convention Reports.
Election of Directors.
12 noon Organizational Luncheon for Directors.
Afternoon free.
7:00 p.m. Suppliers Social
8:00 p.m. Dinner-Dance.

Thursday, July 20
9:00 a.m. Board of Directors meet. Adjourn by noon.

Post-convention tours:
Julius Goldman's Egg City in Moorpark; Lawry's Foods Tourist Center in Los Angeles.
Details are being arranged.

Make plans now to attend. Convention registration forms available from N.M.M.A. office in Palatine, Illinois 60067.

Room reservations should be made directly with Mr. Vincent Lyons, reservations manager, Hotel Del Coronado, Coronado, California 92118.

Beach and Tennis Club

On the hotel grounds are the complete facilities of the Hotel Del Coronado Beach and Tennis Club with a heated salt water turquoise pool, cabana circle with poolside sunning terraces, championship tennis courts, and acres of white sand and beach. A children's wading pool and supervised playground are centers for the energetic activities of the younger set.

INDEX TO ADVERTISERS

CLASSIFIED

ADVERTISING RATES

Want Ads .....$1.00 per line
Minimum $3.00

Display Advertising ....Rates on Application

FOR SALE—83 page book on Macaroni, Noodles, Pasta Products by James J. Winston, $5.00 postpaid if check is sent with order. P.O. Box 336, Palatine, Ill. 60067.

WANTED—Subscribers to the Macaroni for foreign postage. Macaroni Journal, Box Journal. Twelve monthly issues $8; add $2 336, Palatine, Ill. 60067.

WANTED—Members for the National Macaroni Manufacturers Association and National Macaroni Institute. You need us; we need you. Write NMMA Box 336, Palatine, Ill. 60067.

Food Trade Convention Calendar

June 18-21: Grocery Manufacturers of America, Greenbrier, West Virginia.

June 25-28: National Association Retail Grocers, New Orleans, Louisiana.

July 16-20: National Macaroni Mfrs. Association, Del Coronado, Coronado, Cal.

Aug. 22-25: Poultry & Egg Institute of America Production & Marketing Conference, Riverfront Inn, St. Louis.

Oct. 22-25: Nat'l. Assn. of Food Chains, Miami, Florida.

Oct. 30-Nov. 2: PMMI Packaging/Converting Machinery Show, McCormick Place, Chicago.

Nov. 11-15: Nat'l. Frozen Foods Convention, San Francisco, Cal.

Dec. 2-6: Nat'l. Food Brokers Association, New York, N.Y.

Jan. 24-28: National Macaroni Mfrs. Association, Doral Country Club, Miami, Fla.

Mayor Says Thanks—Joseph L. Alioto, right, Mayor of San Francisco, extends his appreciation to General Manager Vincent DeDomenico of Golden Grain Macaroni Co. for the firm's sizeable financial support of the City's "Dollar Opera" series. This is the second consecutive season Golden Grain has become a major sponsor of the popular series, which has the personal support of Mayor Alioto. Seven performances, with tickets priced at only $1 each, were given in May at the City-owned Palace of Fine Arts Theater. Smiling her approval at the friendly proceedings in the Mayor's office is Carolyn Lewis, soprano, who starred in two of the opea pefomances staged by Westen Opea Theate of the San Fancisco Opea Company.

Marinated Steak-A-Roni

Adolph's Ltd. of Burbank, California and Golden Grain of San Leandro, California are getting together on a mutual promotion involving Adolph's 15-Minute Marinade and Golden Grain's Spanish Rice—via a joint full-page, four-color national ad in May Family Circle and April Woman's Day.

Headlined "Marinated Steak-A-Roni, a thrifty dinner idea from Adolph's and Rice-A-Roni," the ad will feature a handsome, delicious low-budget meal consisting of a marinated steak and Rice-A-Roni. Attractive full-color point-of-purchase material for meat and grocery departments is available, to support the promotion at the store level.

Cookbook for Texans

Skinner Macaroni Company advertisss their cookbook in full-color in the Dallas-Houston edition of Family Circle and Woman's Day for May. "What's for Dinner, Mrs. Skinner?" contains over 300 recipes and can be obtained in return for three Skinner labels from any package of Skinner macaroni, spaghetti or egg noodles.

Pointers For Progress →

Erich Cohn

The New York Times carried the following item April 14:

Erich Cohn, president of A. Goodman & Sons, Inc., manufacturer of egg noodles, spaghetti, matzohs and other food products, died of a heart attack yesterday in his office in Long Island City, Queens. He was 82 years old and lived at 322 Central Park West.

Dedicated Manager

Mr. Cohn, who went to his office daily despite his age, had been president since 1937. He joined the concern about 1915 under rather unusual circumstances. A relative of Augustus Goodman, a Union Army baker in the Civil War who founded the company in Philadelphia in 1865, Mr. Cohn came to this country from Filehne, Germany, now Poland, to attend Mr. Goodman's 50th wedding anniversary.

By that time the concern had grown considerably and many Goodman children and in-laws had entered the business. Mr. Cohn, unable to return to Germany because of the outbreak of the war in Europe, joined the family company, working at first in the plant.

Over the years he rose steadily and in 1937 he succeeded to the top on the death of David Cowen, a son-in-law of the founder.

Art Collector

Mr. Cohn was a collector of German expressionist art, in particular the paintings and sculpture of Kathe Kollwitz, and gave many of her works to various museums in this country and abroad.

He also was a friend of George Grosz and a collector of the water-colors and satirical drawings of the German artist who fled the Nazi regime.

A trustee of the Society for the Advancement of Judaism, Mr. Cohn was also an active supporter of the United Jewish Appeal, the Federation of Jewish Philanthropies and other charities.

Survivors include his widow, the former Helene Danziger; a son, Richard; a daughter, Mrs. Evelyn Golbert, and three grandchildren.

Businessmen participate in trade associations because they can accomplish more collectively than they can individually.

Associations help members solve mutual problems, channel resources, exchange information, develop leadership, promote the industry or profession as a whole, guard against adverse outside influences, and benefit from full-time consultants without additional payroll.

They do all these things at little cost with the utmost efficiency for both large and small firms. In short, they help businessmen do things they can't do by themselves.

Okay.
Who put egg in the noodles?

Sal Maritato did.
So now when you buy Multifoods' new noodle mix called "Duregg" – all you add is water.
We've gone ahead and added the egg solids to Multifoods' top-quality durum flour.
A number of our customers have already ordered "Duregg" in hefty lots.
Here are a few reasons why *you* should:

- Duregg eliminates time-consuming, in-plant blending of flour and egg solids with expensive machinery.
- Duregg is ready when you need it. No thawing, less chance of contamination, and less time and mess.
- Duregg eliminates the need to re-freeze unused egg.
- Duregg assures a consistent blend.
- Duregg eliminates the necessity to inventory two ingredients. Storage and record keeping is reduced.
- Duregg simplifies delivery. Now it's one source – Multifoods.
- Duregg lowers your manpower requirements.

Enough said. Order your Duregg with a phone call.
The number is 612/339-8444.

INTERNATIONAL
MULTIFOODS
DURUM PRODUCTS DIVISION
GENERAL OFFICES, MINNEAPOLIS, MINN. 55402