# THE MACARONI JOURNAL

Volume 44 No. 3

July, 1962







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In This Issue

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# Officers

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# **Emphasis on Fundamentals**

 $T_{\mathrm{fundamentals}}^{\mathrm{HIS}\ \mathrm{IS}\ \mathrm{the}\ \mathrm{time}\ \mathrm{to}\ \mathrm{re-examine}}$ rom's prime raw material; problems in the field of management; and plans to Department of Agriculture, Washingstimulate sales promotion to ease the ever-ughtening cost-price squeeze all ment's evaluation of the durum proappear as important items on the agen-gram. da of the Fifty-eighth Annual Meeting of the National Macaroni Manufacturers Association to be held at The Homestead, Hot Springs, Virginia, July 9-12

#### **Committees Meet Monday**

Committee meetings will be held Monday morning, July 9, with the Board of Directors assembling for luncheon and an afternoon session. At 6:30 to 7:30 P.M. a reception and cocktail hour will be sponsored by suppliers for all convention delegates.

The first general session will be called to order by President Emanuele Ronzoni, Jr Tuesday morning, July 10. at 9:30. An inspirational film "Response to the Challenge" featuring the Rev. Robert E. Richards, youth leader, clergyman, and athlete, will set the mood of the meeting.

#### **Durum** Discussions

Members of the Inter-Industry Committee on Durum, Richard Crockett, Alvin Kenner, Mark Heffelfinger, Ray Wentzel, Lloyd Skinner, and Bob Green, will review developments and future considerations such as marketing alternatives, handling carry-over, statistics, and government relations.

A CONTRACTOR OF A CONTRACTOR O

Edwin A. Jaenke, associate administrator, Agriceltural Stabilization and Conservation Service, United States ton, D.C., will comment on the govern-

A panel discussion featuring members of the Association's committee on standards and research, with James J. Winston, the Association's director of research; Dr. Kenneth Gilles, chairman of the Department of Cereal Technology, North Dakota State University will consider the subject "What Is Quality in Macaroni?"

Plans are being made for a golf tournament in the afternoon, and the suppliers will entertain at a joint cocktail hour 6:30 to 7:30 preceding the traditional Rossotti Spaghetti Buffet

#### Management Matters

At the second general session Dr. Forrest Kirkpatrick, assistant to the president of Wheeling Steel Corporation, will discuss "Three Major Management Problems of the Sixties-and Another.'

I. Austin Kelly III, president of the National Employee Relations Institute. Inc., will analyze the advantages and disadvantages of a variety of executive compensation plans in a talk keyed es pecially to macaroni manufacturers' problems

Hal A. Bergdahl, experienced sales executive teacher and consultant, will

stress salesmanship in a presentation "A Bonus Every Month."

Wrap-up and evaluation of the speakers' comments will be made by a panel of macaroni manufacturers with audience participation.

Fellowing a report of the nominations committee, directors will be elected, followed by an organizational meeting of the newly-elected board.

West Virginia Pulp and Paper Company plays host in the afternoon with a visit scheduled to their paperboard plant at Covington, Virginia.

The suppliers' social in the evening will be followed by the Association's dinner party and dancing.

#### **Product** Promotion

At the final general session, product promotional plans will be presented by Howard Lampman for the Durum Wheat Institute and Theodore R. Sills for the National Macaroni Institute Cross country comment by a panel of representative macaroni manufacturers will wind up the convention.

H D Dardenne, promotion manager of McCall's magazine, will report on findings of the McCall's Congress on Better Living in a presentation "Mc-Call's Probes Consumer Attitudes on Macaroni Products."

#### The Homestead

The Homestead, "America's most distinguished resort," is keyed to comfort. Gracious living in a gracious land tells (Continued on page 43)

# We join the historic Homestead in welcoming you to the 58th annual meeting of the National Macaroni Manufacturers Association INVITATION

West Virginia Pulp and Paper's Covington plant is just a short, scenic drive from the Homestead. We cordially invite you to join the tour of this modern paperboard mill on Wednesday afternoon, July 11th. at 2 P.M. . We are sure you will find it most informative, as well as interesting, to see this largest producer of top-quality machinecoated food board, used in Westvaco's expanding facilities for producing sanitary Brite-Pak cartons. Transportation will be provided

#### Packaging products designed and produced by the West Virginia Pulp and Paper Company

CONSUMER PACKAGING Brite Pak dry cartons for food pharmaceuticals, toiletries Brite-Pak frozen food cartons Grocery bags Household bags Brite-Pak ice cream cartons Lunch bags Brite Pak meat packages Brite-Pak P. E. coated cartons

JULY, 1962

Roto printed multiwall bags lobacco cartons INDUSTRIAL PACKAGING & D corrugated boxes H & D lightweight shipping containers H & D mailing cartons Multiwall bags

Pockets

OTHER PACKAGING MATERIALS Brite Pak bleached boards Container board Converting kraft Extensible kraft Label and lining papers Shipping sack paper White converting stock PACKAGING SYSTEMS



Edwin A. Jacnke discusses durun



reviews deferred compensation



stimulates salesmanship THE MACARONI JOURNAL



## THE INDIVIDUAL: A POWER AND A GLORY

by Arch N. Booth, Executive Vice President, Chamber of Commerce of the United States

M Y ASSIGNMENT is simple and straightforward. It is this: to help restore needed perspective as to the role of the individual in a free society.

Renewed perspective as to the role of the individual here in America is especially necessary in this day when the trend is to overwhelm the individual, by obscuring the fact that the individual is the basic source of power. initiative, action and character-that the individual is a power and a glory.

My purpose is not to debate the role of centralized federal planning in our lives. The question is not whether planners are bad people, or whether Washington is a place populated by "bureaucrats" constantly scheming to destroy our liberties. The problem is something else:

The planners are up ugainst 180 million individuals, each with ideas of their own, and there is no way to devise a workable government plan which does not impinge on their vitality.

Nor is my purpose to sing the praises of a free economy. The free market system is not a sacred cow, to be worshipped because it is traditional. The free economy's outstanding virtue-its claim to preservation-is the fact that it brings into play the matchless strength to be found ir diversity-the interaction of the drives of millions of individuals - self-centered, if you please, but working in a rational order mpossible under any plan.

#### Individual Incentives

The free economy works because it is based upon individual incentivesbecause it is triumphantly alive and because it is free-because it is based upon the great and shining hope for continued progress in this countryand for enduring peace in this world: The informed, responsible and selfreliant individual.

Every individual has the ability to affect, in a wholesome and constructive way, the time and place in which he lives, and the people with whom he shares that time and place. More than that, every individual has also the ability to affect the future-to have an imprint on time yet to come. He can extend his influence for good in a way that can be almost magical in its scope and in its impact. This powerthis potential--is not reserved to a special and mystically chosen few. It is ductive, fruitful, accountable manner,



Arch N. Booth

inherent in every individual, waiting to be stirred into motion.

It is yours, this power. Where you are, and with what you have, you can shape your destiny-and the world around you. You can do the necessary things to bring decency and direction and purpose to our community and national life.

Some individuals have demonstrated this truth with greater sweep and drama than have others, certainly. But for every figure who, by circumstance or design, has towered over his age and his contemporaries, there have been several who have made as legible and lasting a mark on a smaller circle. You may not be a Washington, a Jefferson, or a Hamilton, or an Emerson, a Lincoln or an Edison, but you can do something-exert a force for good on your own sphere of influence: Your business associates, your friends, your neighborhood, your community.

#### Be Useful and Influential

You can be more useful and influential than even you may think you can be. The secret is this: Knowledge - Understanding - Conviction - Action. The person who has the foundation of facts, who has the clarity of understanding, the courage of conviction, the wholeheartedness of sincerity, and the will to act can have useful influence far beyond what most of us imagine. He can take action in a pro-

to bring about progress for his community-and for every American. You cannot comprehend beforehand just how far-reaching, in a given situation, your influence as one person can be. The great English statesman, Edmund Burke, made the point with these words: "How often has public calamity been arrested on the very brink of ruin, by the seasonable energy of a single man? One vigorous mind without office, without situation, without public functions of any kind.

"One such man, confiding in the aid of God, and full of just reliance on his own fortitude, vigor, enterprise, and perseverance, would first draw to him some few like himself, and then multitudes, hardly thought to be in existence, would appear and troop about him."

There is a stately and leisurely tone. in this day, to these ringing words of Edmund Burke. But the point he made is as valid and as valuable today as ever it was. "The seasonable energy of a single man." That is as potent a unit force in this day as it was in the 18th Century England of Burke. Because that is true, I offer one prac-tical way in which you can apply your own "fortitude, vigor, enterprise, and perseverance" in such a way as to draw to you, first, some few like yourself - and then "multitudes, hardly thought to be in existence," who share your goals with you.

#### How To Do It

Here is what you can do: Learn and participate. Learn what the big issues and problems of the day are aboutthe problems which confront your country, your state, your community. Participate in the selection and election of those who represent you in government, and participate with them in making decisions-by communicating well informed, well reasoned views to them. More than that, encourage those with whom you share these problems to become active so that each will take his rightful place in the processes of representative government. This is something which you can do-one individual. But this personal action, this individual action, comprises only one half of the opportunity you possessthe opportunity to affect the time and place in which you live. The other half of this opportunity is

encompassed in the uniquely Ameri-(Continued on page 40)





# ESSENTIALS OF A COMPETITIVE SYSTEM

by Henry Hazlitt, Contributing Editor to Newsweek

My subject is listed as "The Essentials of a Competitive System." But it is evident after a moment's thought that this is a short title for a long subject. A full title would have to run something like: "The Essentials of a Free Enterprise System, With Special Em-phasis on the Role of Competition in such a System."

Now a free enterprise system, or as Marx and Engels began to call it, the capitalistic system, is distinguished by two main institutions. One is the institution of private property; the other the institution of the free market.

#### 1. Private Property

Private property comes first. It is not a recent institution, as some socialist writers would have us believe. Its roots go as far back as human history itself. Every child reveals a sense of property with regard to his own toys. Many of us are just beginning to realize the astonishing extent to which some sense or system of property rights or territorial rights seems to prevail even in the animal world.

The question that concerns us here, however, is not the antiquity of the institution but its utility. When a man's property rights are protected, it means that he is able to retain and enjoy in peace the fruits of his labor. This security is his main incentive, if not his only incentive, to labor itself. If anyone were free to seize what the farmer had sown, cultivated and raised, he would no longer have any incentive to sow it or raise it. If anyone were free to seize a house that you had built, you would have no incentive to build it. All production, all civilization, rests on recognition of and respect for property rights, rests on the institution of property. A free enterprise system is ossible without securi of property as well as security of life. Free enterprise is possible only within a framework of law and order and morality.

#### 2. Free Markets

The second basic institution of a capitalist economy is the free market. The free market means the freedom of everybody to dispose of his property, to exchange it for other property or for corollary of private property. Private of free disposal or exchange.

speaker try to reverse or deny this rela-



tionship. He conceded that free markets were essential if we wanted to get a truly productive system and a properly balanced output of thousands of different commodities and services. But private property, he opined, was a question of minor importance.

Such a view involves # deplorable confusion of thought. If I am a government bureaucrat selling something I don't really own, and you are another bureaucrat buying it with money that really isn't yours, then neither of us really cares what the price is. When, as in a socialist or communist country, the heads of mines and factories and stores are mere salaried government bureaucrats, who either buy their raw materials from other bureaucrats or sell their finished products to still other bureaucrats, the so-called prices at which they buy and sell are mere bookkeeping fictions. Such bureaucrats are merely playing an artificial game called "free market." They cannot make a socialistic system work like a free en-

terprise system merely by imitating the so-called free market feature while ignoring private property. One reason the Soviet economy works even as well as it does is that its managers watch money, on whatever terms he finds ac- what commodities sell for on free world ceptable. This freedom is of course a markets, and artificially price their own in conformity. Stalin himself once property necessarily implies the right bawled out the managers of the Soviet economy because some of their arti-I recently heard a distinguished ficially-fixed prices were out of line with those on the free world market.

#### 3. Moral and Legal System

This brings me to another point. In speaking of private property earlier I may have seemed to be referring to merely personal property and consumption goods, like a man's food, clothing, furniture, house, or cer. But in the modern market economy private ownership of the means of production is, if anything, even more fundamental. Such ownership is less a privilege than a social liability. The private owners of the means of production do not employ their property for their own satisfaction; they are forced to employ it for the best possible satisfaction of consumers. If they do this well, they are rewarded by profits, and a further increase in their ownership; if they are inept or inefficient, they are penalized by losses. Their investments are never safe forever. In a free market economy the consumers daily decide anew who shall own and how much he shall own. The owners of productive capital are compelled to employ it for the satisfaction of other people's wants. A privately owned railway is as much dedicated to a public purpose as a government-owned railway; and is likely to achieve that purpose .ar more suc-cessfully, precisely because it can be penalized by failing to meet the needs

of its customers at competitive prices. So a free market system exists within a moral and legal system. This system assures on the one hand security, and on the other hand liberty. It allows a man security to retain through private property the products of his la-bor. It allows him to retain a profit if he can make it. And it leaves him liberty to buy or sell, or to take a job or leave it, or to hire or discharge others, or to make other contracts, as he sees fit-with some minor qualifications that we need not go into at the moment. Fundamentally law exists, not to restrain liberty, but to maximize it. And it can maximize liberty chiefly by forbidding coercion.

#### Maximize Incentives

The result of making persons and property secure and maximizing liberty is to maximize the incentives to production and the incentives to cooperation. For the free enterprise system is a vast system of division and specialization of labor made possible by a vast system of social cooperation. It is the basic cooperative nature of the capitalist system that its chief (Continued on page 42)

THE MACARONI JOURNAL

57 X030 BRONZE ALLOYS 0 . STAINLESS STEEL P . SPECIAL ALLOYS . TEFLON 4000 % mm AMERICA'S LARGEST MACARON DIE MAKERS SINCE 1903 -Management continuously retained in the same family. Satisfied customers in over twenty-five countries . ENGLAND . BRAZIL . ITALY . GREECE . CHILE . MEXICO . VENEZUELA . JAPAN . PERU . UNITED STATES . ARGENTINA . ISRAEL . PUERTO RICO . ECUADOR . HAWAII \*\* 639 00 . CANADA . URUGUAY . COLOMBIA . PANAMA . DOMINICAN REPUBLIC . CUBA . SOUTH AFRICA AUSTRALIA . SWEDEN . HAITI every die unconditionally guaranteed l send for our FREE catalog 00 to supplement your Ś present products. Written in SPANISH, ENGLISH, ITALIAN. MALDARI & SONS, INC. 0 Vo and O T



# LET'S EAT OUTDOORS!

THE SEASON for patio dining has L arrived, and folks are getting out the grill and picnic table in anticipation of eating outdoors. With the arrival of warm weather, the menu-planner is sure to schedule outdoor meals.

Some folks enjoy donning chef's caps and outsized gloves to cope with brisk open-fire cooking. For others, outside dining means a cool, pleasant spot on the porch or patio. High, dry and protected from the elements, dining out can take on a feeling of "partying."

Why not invite friends over to enjoy a patio party! Let the whole family take part in pre-meal preparations. Give the table a colorful rustic look with a bright cloth. The table can be set by the youngsters with pottery dishes and wooden bowls and decorated with wild flowers and leaves. Small fry also love to arrange relishes and help carry food from the kitchen. It will undoubtedly be mother's responsibility to plan the dinner, and a quick, nutritious main dish combining the family's food favorites - noodles and hotdogs-would be fine fare. For eating at its best, and especially appealing for summer, is Noodles with

Frankfurter Sauce. The basic recipe. given below, may be doubled or tripled, depending on the size of the crowd to be fed.

#### Noodles with Frankfurter Sauce (Makes four servings)

3 tablespoons butter or margarine medium-sized onion chopped I can (4 ounces) sliced mushrooms

drained 2 cans (8 ounces each) tomato sauce 4 frankfurters sliced

Salt and pepper to taste 1 tablespoon salt

3 quarts boiling water

#### 8 ounces medium egg noodles

Melt butter or margarine and add onion and mushrooms. Cook over medium heat until mushrooms are browned. Add tomato sauce, frankfurters and salt and pepper. Cover and cook 15 minutes, stirring occasionally.

Meanwhile, add one tablespoon salt to rapidly boiling water. Gradually and egg noodles so that water continues to boil. Cook uncovered, stirring occasionally, until tender. Drain in colan-



der. Serve noodles with frankfurter sauce

"In the good old summertime," picnics have become an American tradition. Whether they take place by seashore, in the mountains, by the bank of a stream, at a forest preserve, the chief essential is flavorful, appetizing food.

Macaroni salads rate high among favorite foods for picnic fare, as they can be made in a minimum of time by busy mothers. Macaroni products not only provide essential nutritive elements, but they lend themselves wonderfully well to many tasteful combinations of other nourishing and wellliked foods. A hearty macaroni salad is easy to fix and to carry on a picnic. and what's more, you can be sure it will be popular with everybody.

Here is a National Macaroni Insti tute recipe for Macaroni Garden Salad. which utilizes the fresh garden vegetables that are so plentiful this time of vear.

#### Macaroni Garden Salad

- (Makes six to eight servings)
- 1 tablespoon salt
- quarts boiling water 2 cups elbow macaroni (8 ounces)
- cup French dressing
- 4 green onions, chopped
- 1/3 cup chopped green pepper
- 1/2 cup chopped celery 2 medium-sized tomatoes, cut in thir wedges
- 1 cup diced Swiss cheese tabout 1/4 pound)
- I teaspoon salt
- 1/4 teaspoon pepper
- 1/2 cup mayonnaise

Add one tablespoon salt to rapidly boiling water. Gradually add macarony so that water continues to boil. Cook uncovered, stirring occasionally, until tender. Drain in colander. Rin-e with cold water; drain.

Combine French dressing and macaroni; toss lightly. Chiil. Add remaining ingredients and mix lightly but thoroughly. Chill. Garnish with crisp salad greens and additional tomato wedges, if desired.

# "YOUTH LOVES TO BE SERVED" Macaroni products made from

Last's have "something special" is the phrase that is heard more and more often from Nev York to L. A. Let's have a different kind of meal - but with lots of appetite- and he dth appeal. Let's have a meal that satisfies all the family all the time Everyone knows that macaconi products are economical - but do they know that they can be "something special" dishes too They meet all the requirements or log-family budgets to the most exacting taste of the gournet To obtain that "something special" in your products use the finest - use King Midas



#### **DURUM PRODUCTS**

### JULY, 1962

MINNESDIA

Fine supper fore is at hand with a platter of egg noodles and frankfurters with a tangy



## WAIF comes to U.S. and enjoys spaghetti



Demetries Karey, 14-month orphan boy from Greece, became the 0,000th WAIF on his arrival at Idlewilde Airport in May, He is 10,000th WAIF on his arrival at Idlewilde Airport in May, He is in the arms of his new mother while his father holds sister Carol Ann, age 4½, a former WAIF from Greece, adopted several years ago. The parents are Mr. and Mrs. Gus J. Karey of Oklahoma ogo, City,

The Karey family looks forward to a WAIF spaghetti dinner served by Hermiene Gingold. Organizations all over the country cooper-ated in putting on spaghetti affairs to raise funds for WAIF, the adoption ogency for international Social Service. Helen Heyes, here here here the set of the celebrities assisted the effort.

#### July Is Picnic Month

With the outdoor eating season in full swing, the "July Is Picnic Month" annual promotion by the Bakers of America is getting a big boost from the

many companies plugging pinics in newspaper advertising, radio and TV. Campbell Soup Company is promot-ing "Quick 'n Easy Meal Center" during June and July. Featuring soup and sandwich makings in a heavy advertising campaign, a variety of ideas is reaching 90 per cent of all United States homes nine times during the promotion period. Advertising is appearing in magazines, newspaper supplements and on three night-time network television shows. Point-of-purchose materials supplied by Campbell include a complete meal center display in full color, case cards, shelf markers, ad mats, and ad mat proof sheets.

The Glass Container Manufacturer's Institute is promoting "It's Fun to Eat Outdoors" July through September. A major in-store pole display is being used, while a number of stock cards feature a wide variety of products packed in glass. The display has an illustration of sandwiches and hot dog rolls.

Although National Hot Dog Month is being celebrated, as usual, in July, the National Hot Dog and Sausage Council is extending the major hot dog season through the middle of September with their new program. Highlight of the promotion is a contest for children under 12 to win a free trip to Hollywood to watch Jerry Lewis make a movie.

#### Spaghettiville, Mass.

Massachusetts, which lists such tasty names for its localities as West Chop, East Sandwich, Teaticket, Feeding Hill and Orange, now boasts another name good enough to eat: Spaghettiville. It's an eight and one-half acre area

within the city limits of Lowell Massachusetts, and has been officially regis-tered with the post office as Prince Spaghettiville, U.S.A. It is the home base of the Prince Macaroni Manufac-turing Company, and includes the big-gest macaroni plant in New England, an office building that houses the national headquarters of the company, rolling lawns, flower beds, imported Italian fountains and a public restaurant.

Joseph Pellegrino, president of the Prince company and "mayor" of Spaghettiville, said:

"Why Spaghettiville? Spaghetti is one of America's most popular dishes, and we produce tons of the highest quality every day for national distribu-tion. It certainly goes well on the same menu as Hamburg (Arkansas, Connec-ticut, Illinois, Iowa, Louisiana, Mich-igan, Mississippi, New Jersey, New York, Pennsylvania, and Wise nsin); Bacone (Oklahoma): Chicken (Alaska); or Duck (West Virginia); Olive (California and Montana); Saltville (Virginia): Tea (South Dakota): or Winesburg (Ohio); and Pie (West Virginia)."

There is no dependence that can be sure but a dependence upon one's self. \_John Gay.

**Free Flicker Pictures** During June the I. J. Grass Noodle Company, Chicago, had free flicker pictures attached to the front panels of its soups. The plastic pictures, made of plastic, move and change positions when touched. A self-liquidating offer of a set of 12 different pictures, plus a flicker badge holder was offered on each package back. Sump bin displays and shelf cards were available to retailers

#### **Rice-A-Roni on TV**

Golden Grain Macaroni Company, San Leandro, California, will advertise its Rice-A-Roni items on a news lineup of TV shows. The program is said to include about 175 stations. Rice-A-Roni "square-footers" are available to retailers for tie-in displays of the line.

Ragu's Money-Back Deal During July and August the Ragu Packing Company, Rochester, New York, will run one-third page ads in regional editions of Woman's Day and Everywoman's Family Circle promoting a money-back deal. Customers in the metropolitan New York area sending three labels from jars of Ragu spaghetti sauce to the company will receive a 50-cent refund. The ads will run both months in each magazine.

Chef Boy-Ar-Dee Promotion Spaghetti dinners by Chef Boy-Ar-Dee were promoted in late May and all of June by large display boards. The board featured a young girl about to eat a dish of spaghetti.

THE MACARONI JOURNAL

Again in 1962 takes top honors for quality and versatility in Color Printing and Packaging. 22

> We like to talk about the awards we have won, but even more to report on the twenty-two sales success stories that stand behind these awards. The next time your U-S sales representative calls, ask him for details on our award winners .... ask him to explain how the U-S formula for success can be applied to your packaging and merchandising needs.

UNITED STATES PRINTING AND LITHOGRAPH . DIVISION OF DIAMOND NATIONAL CORPORATION EXECUTIVE OFFICES: NEW YORK 17, N. Y. . SALES OFFICES IN PRINCIPAL U.S. CITIES JULY, 1962

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# Delmonico develops efficient spaghetti line



Delmonico Foods of Louisville has just completed a new addition of some 50,000 square feet. Pictured are President Peter J. Vivi-ano and his son Joseph in front of the new office entrance on South Floyd Street.



Weigher fills buckets with correct amount of spaghetti. Buckets automatically dump into form over bottom-scaled carton filling the carton Conveyor carries weighed package to top scaler and compression unit.



Folded cartons feed into bottom-sealer, circle around to filling forms under weighers scales, come back for top-seal after filling and trip through compression belt.



The four-story addition permits straight-line production with grav-ity feed from production departments to packaging and ware-housing. The new section is to the left with the original structure on the right.



Two weighers handle four scales each on a line feeding cartons top and bottom scaled on a Clybourn Machine Company line. Man in foreground fills carton feeder.



Third operator pocks cases with finished packages. Line with three operators handles 50 packages per minute. An automatic case packer and sealer can be used but this is not a problem at Delmonico where packer handles the supply line.



## **DURUM REASEARCH OUTLINE**

by Dr. Kenneth A. Gilles, Professor and Chairman, Cereal Technology Department, North Dakota State University, Fargo, North Dakota

 $\mathbf{F}_{\text{Carleton until 1954, durum wheat}}^{\text{ROM the time of introduction by}}$ production provided an adequate supply for needs of United States consumers. Until the 15 B rust disaster. the American macaroni industry appeared complacent about the raw material which had become accepted as the standard of quality for their industry. Consequently basic research into the physical and biochemical properties of durum wheat has received very much less attention than that afforded other types of wheat and cereal grains. Last week I visited with a gentleman in Washington, D.C., who has been active in this field for some 30 years. When I asked him to indicate significant research advances involving durum, he cited but two in the last 25 years: discs and lipoxidases.

Certainly, many general properties of durum are known. And skilled artisans use their knowledge of these properties to produce excellent milled. processed, baked, canned and frozen products. In fact, this is the only field of wheat utilization where the per capita consumption is increasing. Moreover, the consumer acceptance of durum in macaroni products is clearly reflected by the fact that consumer utilization decreased during the mid-1950's when blends of durum and wheats of other classes were used in the manufacture of macaroni products.

While durum millers have employed laboratory control for some years, it is only relatively recently, within the last 25 years, that systematic efforts have been made by cereal research laboratories to develop experimental testing techniques for evaluation of durum wheat quality. The North Dakota State University Agricultural Experiment Station has been a leader in this effort; Dr. Mangles, Smith and Harris and Mr. Sibbitt have contributed greatly to the preliminary phases of this effort.

#### Foreign Research

Recently advances in durum research have been made in several foreign countries. At Winnipeg, Canada; Detmold, Germany; Milan, Italy; and Uzwil, Switzerland, aggressive research groups are employing modern techniques for this effort. The Detmold, Germany group has recently published a book (1959) which covers experimental work ranging from studies on

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Dr. Kenneth A. Gilles

kernel hardness and bio-chemical composition, to semi-industrial production problems of processing macaroni according to European concepts

We in the United States have no comparable document nor is one anticipated in the foreseeable future, basically because the total research effort supported by the United States, apart from private industry, involves the nart-time work of about five menthree at North Dakota State Univerand two at Beltsville, Maryland. sity The future prospects are becoming brighter, however. The USDA and NDSU groups will be united in a cooperative laboratory to be established in the Cereal Technology Department at NDSU. This should eliminate some repetition of effort, facilitate work with plant breeders, and permit more time for basic research.

#### **Durum Properties**

The topic of durum research could be constructed to include several broad objectives. However, today we shall limit the discussion to two phases. One, the physical and biochemical properties; and, two, the use of these properties in quality evaluation studies. What do we know about our raw

material? The kernel of durum is very hard and possesses a translucent center or endosperm, which is characteristically higher in ash, lipid, sugar and carotenoid pigment content than common wheat. Contrary to popular conception, these pigments are not associated

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(precursors) with the vitamin content

The hard kernels require care in han-

dling to minimize cracked and broken

kernels which reduce product quality.

the hard kernels may be prepared for

milling and particle size reduction on

a roller mill. The semolina must be fine

enough to pass through a U.S. No. 20

mesh sieve, but not more than three

per cent may pass through a U.S. No.

100. This definition implies that there

is a range of particle sizes in semolina.

Usually a good quality semolina pos-

sesses uniformity of particle size dis-

tribution and purchasers frequently re-

quire a sieve or particle size analysis

as one of the purchase specifications.

An excessive amount of fine particles

may indicate the presence of starch

damage introduced in milling which

may result in a sticky and potentially

In addition to semolina, two other

products are produced - durum gran-

ular (7-20 per cent through 100) and

durum flour (100 per cent through 100).

Semolina Properties

ical properties of semolina and maca-

bright vellow color free of visible

specks. The pigments alone are not the

durum color. The pigments may be re-

moved from semolina or macaroni

products and measured. However, the

amount and kind of pigment alone can-

not conclusively be associated with col-

or quality of good and poor durum.

nipeg laboratory has presented a con-cept of interrelation of enzyme activity

which is associated with durum wheat

varieties and the content of the pig-

ments. The destruction of pigment by

these enzymes appeared to increase

of the air bubbles in macaroni affected

the color of the product. Laboratory

research showed that small gas bubbles

could be reduced in number by press-

ing the dough for a period of time un-

der a high pressure. The size of the

gas bubbles increased and color im-

proved as a result of this treatment.

Subsequently, macaroni equipment was

developed which minimized this gas

bubble problem by using vacuum. Ob-

viously, today much of the commer-

Early research showed that the size

with decreasing particle sizes.

Within the past 10 years, the Win-

complete answer to the definition of

What do we know about the phys-

Macaroni products must possess a

itable macaroni.

roni products?

By proper pre-treatment with water,

cial equipment employs this principle but the problem was defined on laboratory equipment. How many other problems can be solved by systematic aboratory study. Perhaps most of your problems can be, if you can define the problem and design laboratory experiments to study them.

#### Dough Properties

What do we know about the physical properties of dough?

Recording dough mixers have been employed for study of the physical properties of dough - this is called dough rheology studies. These instruments show that durum flours yield a stiffer dough with less water than other wheat flours. This is a desirable characteristic for macaroni processing, since water added to form the dough has to be removed by drying after pressing or extrusion. The reason for this water binding property is not clearly known; it may be associated with starch, protein, pentosan or their ollective properties.

#### Chemistry of Semolina

What do we know about the biochemical properties of semolina?

Wheat flour may be separated into a number of fractions based upon the principle of sedimentation because the nents of flour have different denvities. One of the easiest ways to separate these components is to mix flour and water, agitate and centrifuge the mixture. The starch is most dense and settles to the bottom of the centrifuge cup, the gluten settles above the starch pentosan-rich fraction settles on the gluten layer and the minerals, sugars, amino acids and other waterle materials remain in the liquid at the top of the cup. By appropriately drying these four major fractions, the cereal chemist is able to isolate and study certain biochemical components of the cereals

The fractionation technique has been found quite useful in research on wheats other than durum. By isolating, studying, comparing and exchanging components of good and poor quality wheats, considerable information can be obtained. When one uses this wet-fractionation technique on durum, separation of the components has not. preliminary work, been effected. This again illustrates another difference in the physical properties of durum as compared with other wheat. We appear to have some interesting information concerning this problem. When durum is fractionated, a number of curious properties are exhibited by the components.

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The starch appears to have a greater swelling capacity upon gelatinization than starch from other wheats. Moreover, the starch has a greater susceptibility to attack by the amylase en-2Vmes.

The durum protein has similar chemical composition to other wheat proteins. Dr. R. H. Harris reported that the durum protein possessed different colloidal properties - it was rendered soluble and insoluble under different circumstances. Recently, the USDA laboratory reported that Golden Ball, an undesirable durum variety, possesse different electrophoretic mobilities than hard red winter wheats.

While we do not have facilities at the present time to undertake this type of work, I am pleased to report that recently the Crop Quality Council sponsored a trip for me to the Agriculture Research Service headquarters in Washington, D.C. where negotiations were completed to order electrophoresis equipment, freeze drying and spectrophotometric equipment for spring wheat quality laboratory at Fargo. Perhaps we will shortly be able to undertake further investigations of these durum proteins. We may thereby study the chemical aspects of protein quality in durum - high content gives bucky dough, low gives lack of strength.

#### Pentosana

The pentosans are carbohydrate materials. They have very interesting chemical structures which may permit them to absorb or bind water up to 17 times their own weight. Apart from inary work which Gilles, Geddes and Smith accomplished on their chemical structure, very little is known about these materials in durum. Conceivably, the peculiar absorption properties of durum may be explained on the basis of the pentosans. For they may markedly alter the mixing property as shown by a farinogram.

The water solubles are a rich source of enzymes, pigments, salts and numerous biologically active substances.. We know a little bit about these enzyme systems-the amylases, which attack starch; the proteases, which attack proteins; the liposes, which attack lip the lipoxidases, which attack lipids and pigments; the minerals, the sugars, the amino acids and the pigments. But in this area only the surface has been scratched. And to do this subject justice, an entire talk should be devoted to the topic.

In conclusion, one of the approaches we would like to make is to affix chemical and biochemical determinations with quality observations. This is already under way. If we are successful in creating a reasonable profile of biochemical properties, we can tell the plant breeder about them, about certain factors that he can attribute to genetic principles. Then we might be in a far better position to create a better product for the products and the consumers.

#### Durum Sign-Up

The Crop Quality Council estimates

that on the basis of information on farms signing up for the special durum program, that approximately 2,200,000 acres will be seeded to durum in 1962. It is estimated that 22,448 farms produced durum in 1960-61. A total of 11.-132 farms have signed up for the 1962 program with an indicated increase of 377.694 acres.

#### Winter Increas

The Crop Quality Council reports the harvest of nearly 9,000 wheat, oat and barley breeding lines grown in Canada last winter was completed in April and seed returned to Upper Midwest and Canadian experiment stations for spring seeding. Crop Quality Council sponsored winter increases have become an important aid to plant scientists in speeding up the development and release of new bread wheat, durum, oat and barley varieties. The North Dakota agricultural experiment station in cooperation with the United States Department of Agriculture has just released a new hard red spring wheat variety called Justin. About 6,000 bushels are being seeded by Upper Midwest wheat growers this spring.

#### New Spring Variety

Justin is a beardless wheat which matures one to four days later than Selkirk. It combines good yield potential with needed disease resistance and excellent milling and baking characteristics. It will provide additional and urgently needed stem rust protection, as the Justin acreage increases and the extensive acreage of Selkirk is diver-

sified.

Dwarf bread and durum wheats are being developed in the wheat research program of the National Institute of Agricultural Research in Mexico. Dr. Normal E. Borlaug, director, Interamerican Wheat Improvement Program, The Rockefeller Foundation, reports that a promising dwarf durum combines excellent straw strength, disease resistance and yield. It will soon be evaluated for quelity.







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COMMANDER LARABEE DURUM DEPARTMENT

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## CONTRIBUTIONS OF THE DURUM BREEDER

by Kenneth Lebsock, Agronomist, Crops Research Division, ARS, USDA

#### The Breeder's Job

The durum breeder's job is to develop new varieties that will keep all branches of the durum industry-growers, millers and processors in business. Since these three major segments of the industry have different requirements in a variety, it is easy to understand that the breeder and his associates do face a difficult problem, a problem which is seldom solved-that of pleasing all at the same time.

Theoretically, the breeder should be able to change a variety with respect to any characteristic if it can be measured, is defined clearly, and is genetically controlled. The word "characteristic" is a catchall frequently used in describing a variety. For example, yield and test weight are "characteristics" or "characters" in durum wheat.

Any differences among varieties of durum wheat which are genetically controlled can be useful to the breeder. An example in man may be used to contrast genetic with environmental variation. Eye color variation in humans is genetic. Natural hair color is another human characteristic that is genetic. Recently, green and even lavendar hair colors have been seen, and platinum has been around for a long time. These colors are environmental. Certairly, green and lavendar hair colors will not be transmitted to offspring. In plant breeding it is necessary to separate the genetic effects from the environmental for the important characteristics. Once this is done, there is a sound basis on which a breeding program can be planned to get the desired characters in a variety.

Some characters are easily changed. For example, if a durum processor wanted a red durum, such a variety could be developed rapidly. However, if he wanted a very high protein level or a high content of a specific amino acid such as lysine, the job would be very difficult.

There is no magic to plant breeding. Crop improvement is based on scientific principles. A good program is possible only when (1) important charac-ters are clearly defined, (2) adequate measuring techniques are available, and (3) the extent of genetic control is understood. When these requirements are met, parent varieties which contain desired characters are crossed, and thousands of offspring are evaluated to find the rare ones that have the best combinations of desirable charac-

teristics. It may take many years to reach a specified objective, so it is im- Data show that color scores of the new portant to define your needs as early as ossible

#### Contributions of the Durum Breeding Program

What contributions have been made by breeders to the growers and commercial users of durum? The earliest durum varieties were introductions from Russia. They were very tall, late, susceptible to stem rust, and somewhat low in quality. First efforts were made to obtain higher quality. Mindum, a release from Minnesota in 1918, had excellent quality, and it is still used as the standard in quality evaluation. The durum breeding project in North Dakota was established only 33 years ago by the United States Department of Agriculture and the North Dakota Agricultural Experiment Station. Stewart and Carleton were the first varieties developed through application of hy-bridization and selection methods. They were released in 1942-43, and by 1949, over 50 per cent of the durum acreage was planted to these two varieties. By 1959, almost 100 per cent of the durum acreage was seeded to varieties developed in North Dakota. The Canadian durum acreage has been seeded almost entirely to durum varieties released from the program. So you can see that the durum-breeding program here has had a great impact on durum production in both Canada and the United States.

It is almost impossible to measure the success of durum breeding in terms of dollar income for the industry, but some specific improvements can be mentioned.

(1) Straw length has been shortened by eight to 14 inches below that of older varieties, and at the same time straw strength has been increased greatly. Losses due to lodging have been reduced, and harvesting has been made easier.

(2) New varieties mature five to 12 days earlier. Early maturity allows greater flexibility in the timing of seed-

ing and harvesting operations. (3) Yield ability has been maintained and possibly increased. In the past five years, Wells and Lakota, which were released in 1960, averaged at least four bushels per acre more than Mindum.

(4) Rust-resistant varieties have been developed each time serious epidemics have rendered old varieties use-

(5) Quality has been improved too. varieties average higher than Mindum, the standard of quality.

Development of durum varieties is not a one-man project. Although the breeder sometimes gets much of the attention, many other people are involved. The breeder selects the parental varieties, plans the crosses and chooses a suitable breeding system. Hwever, without information on quality, disease resistance, and genetic systems provided by the chemists, pa-thologists, and geneticists, the breeder's program would be severely limited.

#### Coals for the Future

Everyone is interested in future developments. Much progress has been made over the past 30 years, but many more things can be done. We try to emphasize work on characters which will net the greatest return for the money and time spent. For example, when 15B stem rust destroyed the durum crop in the early 1950's, almost the entire breeding effort was aimed at developing rust-resistant varieties. And it paid off in the varieties Langdon and msey, which were grown on almost all of the durum acreage in North Dakota from 1957 to 1961.

Breeding for rust resistance always will be important, for a variety resistant today might be susceptible to new races of rust which might arise next year. In fact, cultures of rust which attack our most resistant varieties are known.

Early maturity is important. By growing early varieties, the farmer can cultivate later in the spring for weed control and still harvest the crop at a reasonable time in the fall.

More farmers are using fertilizer today, and in the future when new irrigation projects are developed, some durums may be grown on irrigated land. Shorter and stonger straw will be required. Better varieties will be needed as farming techniques improve.

Certain quality characteristics may be improved. Data from recent studies show that carotenoid content of durum varieties can be raised. Other quality ft tors might be improved, but they are not sharply defined. Unless a characteristic is well defined and easily measured. little can be done in the way of efficient planning for its improvement by breeding. Cooking qual-(Continued on page 22)





#### Durum Breeder-

(Continued from page 20)

ity is an example. What are the chemical and physical bases for good cooking quality?

More attention is being paid to kernel characteristics of durum wheat. The relation of size and shape of kernel to semolina yield might be considered.

#### Solving Problems a Joint Responsibility

Blackpoint often is a problem because of its adverse effect on kernel quality. Although it is known that certain fungi are involved, we do not have enough knowledge about this disease to breed for resistance to it. We need research with a view toward developing methods of testing for resistance. This brings up a question for consideration. Is it the scientist's responsibility to point out a problem that is costing you money and then endeavor to obtain funds to solve it? Or, is it the responsibility of those who raise and use the crop to bring the problem to the scientists, to discuss it, and then offer funds to take on the extra research determined to be necessary to get some answers? Undoubtedly, the responsibility is mutual, but here is a problem that deserves serious consideration. The research staff is available for research on blackpoint, but should research on other problems be curtailed to permit this work? There is a need for research funds for facili-ties and technical help if this and all other lines of work are to be continued or expanded. Additional projects could be considered if financial grants were available for graduate students. Here is an opportunity to solve some problems and at the same time help train needed scientists.

In summary we can say that the duturn breeding program has contributed preatly to the durum industry, but continued improvement is essential. Durum breeding is complex, and although the program is centered in North Dakota, many people in many lands are involved to some degree. The durum industry, including growers, millers, and processors, has the responsibility of understanding the problems faced by the scientists who are trying to please all the same time.

#### Film Award Winner

"Durum . . . the Standard of Quality," an educational film of the North Dakota State Wheat Commission, won the Blue Ribbon Award for the top film in the Agricultural, Conservation or Natural Resources category at the fourth American Film Festival held recently in New York City.



The festival is sponsored by the Educational Film Library Association to honor the best films in the educational and public relations field. This year there were over 600 entries.

All entries were screened by prescreening committees who pick the finalists for the Festival. Then, from the finalists, another jury picked the top film in each category.

Frederick A. Krahm, president of the association, presided at the award ceremonies. The presentations were made by Paul Reed, editor of Educational Screen and Audio Visual Guide; Vir-

Norm Selberg, Animation and Art Director for Bill Snyder Films of Fargo, North Dakota, is shown doing the stop motion "dance of the macaroni products," a sequence which was featured in the color film "Durum— The Standard of Quality." Each piece of macaroni was moved a little bit, a single frame of film exposed, each piece moved a little more, another frame of film exposed with the whole thing being coordinated with music which hed been pre-recorded earlier. The comera is at the top of the picture.

ginia Beard film librarian of the Cleveland Public Library; the Rev. Theodore E. Miller of the Emmanuel Baptist Church in Brooklyn and reviewer for Film News magazine; and Robert Konikow, managing editor of Advertising and Sales Promotion magazine.

#### **Bill Snyder Production**

"Durum . . . the Standard of Quality," produced by Bill Snyder Films of Fargo, is a creation of the North Dakota State Wheat Commission, with the National Macaroni Manufacturers Association and the Durum Wheat Institute cooperating in its distribution through Sterling Movies U.S.A., Inc., of New York City.

Domestic distribution is primarily to schools where response has been enthusiastic. It has been shown to college students for general knowledge. It has been shown to high school classes in home economics, agriculture and science. It has been termed outstanding for its presentation of research and product merchandising. Some 1,500 showings have been made in the first five months of distribution.

Presently, prints of the film are being produced in several languages to make it more usable in the principal durum food consuming nations of the world, according to Paul E. R. Abrahamson, administrator of the North Dakota Wheat Commission. English language prints of the film available in Europe have been in constant use by millers, macaroni manufacturers and consumer groups, he said.

#### Field to Table

The living color film shows the stepby-step progress of North Dakota's specialty crop from the time durum (Continued on page 26)

THE MACARONI JOURNAL



## TO INSURE QUALITY IN ANY MACARONI PRODUCT, ALWAYS SPECIFY AMBER

In any size — any shape — it's always easier to control the quality and color of *your* products with Amber's first quality MACA, 50-50 Durum—Hard Wheat No. 1, and, AMAX, 50-50 Durum—Hard Wheat Granular.

Nationally-famed macaroni manufacturers have long preferred these superior Amber products because of their consistently uniform amber color, uniform granulation and uniform high quality. Because of our unique affiliations and connections throughout the durum wheat growing areas, Amber is able to supply the finest durum wheat products available anywhere.

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QUALITY	• A controlled dough as :	soft as desired to enhance textu
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#### **Tossett Elected**

Otis Tossett, Lansford, North Dakota, was elected chairman of Great Plains Wheat, Inc. at the organization's annual meeting. He succeeds Richard L. Lewis, Arapahoe, Nebraska.

#### **Planting Progress**

Spring was late in the northern Great Plains. The snow cover in the main durum area did not run off until almost the first of May. Followed by heavy rains, moisture prospects are much improved, but there has been repeated delays in completing fieldwork and planting. In upper sections of the durum growing area, planting was practically completed by the end of May. The Northern Pacific Railway re-

ports that while crop prospects for 1962 are more favorable than a year ago by reason of better moisture, it is clearly evident that the areas covered by last season's drought and the dry conditions of 1960 can only be reported as still critically deficient in subsoil moisture. To correct this serious shortage, substantially greater than normal rainfall must be received during the spring and early summer. Topsoil moisture is considered generally adequate to give the crops a start, but there are some areas where heavy winds have dried the surface and caused considerable soil erosion. The lack of subsoil moisture in the western two-thirds of North Dakota and the eastern third of Montana is still cause of grave concern, but temporarily at least the crop is in good position to make satisfactory progress in the immediate future.

Weather was also having its effect on the harvest of the winter crop in the southern and central sections of the Great Plains. Prolonged drought, coupled with several weeks of high temperatures during May and drying southerly winds, have pushed the crop toward early maturity by 10 days to two weeks. These conditions have slowed development of all the cereal rusts in the southern Great Plains, according to the Crop Quality Council.

#### March 1 Intentions

An analysis of durum acreage based on farmers' intentions to plant as of March 1 shows a total increase of 40.7 per cent over last year:

1961

State North Dakota South Dakota Minnesota Montana California

#### In Washington State

Five hundred acres of durum wheat was grown in Kittitas County, in the state of Washington, last year, and there will be 2,000 acres grown this year. The average yield last year was 55 bushels per acre, and indications are that this yield can be increased with the knowledge gained last year. All of the wheat grown last year was marketed as No. 1, with a demand for all they can grow. Acreage in this county is limited, but the Columbia Basin is considered favorable for durum production. An appeal is being made to the USDA to get this declared a durum area.

#### Durum Stocks Down

In late April, the Economic Research Service of the United States Department of Agriculture estimated that as of June 3, durum wheat stocks would be only 2,000,000 bushels contrasted with 16,000,000 a year earlier. The holdings will equal only seven per cent of the average annual disappearance, which in 1961-62 is estimated at 33.-000,000 bushels, including 18,000,000 for domestic and 15,000,000 for export.

A trade letter from General Mills, using USDA figures as of April 1, shows supplies at 12,611,000 bushels with 7,-252,000 on farms and 5,359,000 in mills, elevators and warehouses. It is reported that the grain trade thinks the estimate on farms is at least 2,000,000 bushels too high. The mill grind from April through August will take approximately 5,000,000 bushels. Seeding took possibly 3,000,000 bushels, making disappearance 8,000,000 bushels. This would make for an estimated carry-over as of September 1 of 4,-611,000 bushels. April exports have al-ready taken 1,000,000 bushels of this, and additional export sales will have to be deducted.

#### Cash Market Off

During the month of May, the cash durum market in Minneapolis saw very light receipts of durum, with top grades selling at the start of the month in a range of \$2.95 to \$3.00. Export inquiry in the middle of the month boosted the price 15 cents, but as soon as they withdrew it was back down to original levels at month's end.

#### 1962 Seeded Acreage Estimated Acreage % Increase 1,408,000 1.847.000 31.0 114.000 150 000 31.6 29.000 50,000 72.4 150,000 350.000 133.3 8.000 9,000 1,709,000 2,405,000 40.7

#### Durum Film-(Continued from page 22)

seeds are first planted to the time the final macaroni and spaghetti foods are placed on the family dinner table as attractive, appetizing dishes,

The film, in emphasizing the economical, nourishing, convenient, and versatile foods that can be prepared with macaroni, has played an important role in the market development activities of North Dakota durum wheat growers in foreign markets, Abrahamson said.

He says the State Wheat Commission invites clubs and educational groups to order the film for viewing at their meetings. He notes that the film is entertaining as well as educational, and is suitable for all age groups, including men's and women's clubs, industrial showings and school groups, both boys and girls. Many macaroni manufacturers are using the film for showings to such groups in their marketing areas.

#### **Evaluating Competitive** Moves

The usual method of determining the effectiveness of your own company's consumer product offerings is through store audits. Store audits provide total sales volume, market share, pricing, inventory levels, markup, and retailer sales profit per dollar invested in inventory. But ordinary research practices may take too long, may give competition an insurmountable lead before you realize what is happening.

#### Time-Sampling

In an article in a recent "Food Business" magazine, Charles G. Brown assistant to the vice president of product planning and marketing research, Purex Corporation, explained a method his company uses to quickly determine the effectiveness of their own innovations and particularly those of their competitors in the test-marketing stage -"time-sampling."

Time-sampling is the shelf count and recount of various sizes and brands within a given product category, conducted continuously during heavy traffic periods in high-volume retail grocery stores.

In the soap and detergent industry in the past year, major manufacturers have been test marketing heavy-duty detergents in both tablet and watersoluble pack form, both innovations representing substantial convenience to the housewife.

These changes in form presented several questions to the industry: Will the change in form increase total industry (Continued on page 28)

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Some polys are tough. Others are clear. But only Du Pont 2 in 1 poly is both; toughness to hold macaroni without puncturing or tearing .... clarity to show the rich quality of your macaroni. Try it, and you'll

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#### Competitive Moves-(Continued from page 26)

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volume, or simply rearrange type and brand shares? Will the change in form more seriously affect packaged powders or liquids? Will the housewife pay the increased price for the change in form after the novelty wears off? Which will be more acceptable to the housewife-the water-soluble pack or the tablet product.

#### How It Works

Here is the way time-sampling works: On Monday, one of the major competitors started to sell their water-soluble pack of detergent in several test markets. By Wednesday, market research-ers at Purex decided this innovation warranted obtaining market-share change figures.

crew of enumerators in one of the test cities on time-sampling procedure. A sample of 20 high-volume supermarkets was selected to obtain a "before," "during," and "after" share figure.

On Friday afternoon at 3:00 p.m., each enumerator visited his first store, made a small purchase in order to become a bonafide customer, and counted the shelf stock of the various brands and sizes of detergent. The count did not include the water-soluble pack because the brand was not on the shelf yet in the "before" period. The auditor returned to the store and recounted the shelf stock every hour thereafter until 8:00 p.m.

On Saturday, from 11:00 through 5:00 p.m., the procedure was repeated. Then, total units purchased and sales by type, size, and brand were tabulater

After the water-soluble pack had obtained good distribution and the advertising promotion appeared to be just past its peak, another weekend audit was taken, followed by two more at monthly intervals. Subsequent audits at later intervals were also taken as competitors introduced tabletized products in the same test market.

#### Results

Result: A quick, economical, and accurate evaluation of the initial and long-run effect of the innovation of both the water-soluble pack and tablet form of detergent. By using time-same ling, the effectiveness of competitiv innovations could be determined give good direction to promotional a tivities within the Purex Corporation Time-sampling can also be use to measure packaging changes, siz changes, cents-off labels, one-cent sale and the like.

#### The Egg Market

Before Easter, shell egg markets were exceedingly firm and it was a foregone conclusion that they must come down to a realistic level. Eggs were actually in short supply.

After Easter, the drop came and fast. When this happened, buying stopped as everyone wants to be a shrewd buyer and get in at the bottom. With little interest in shell eggs and egg products, the market had no support at any level. Then reaction set in and prices started to firm.

Frozen and dried eggs did not follow the market up, but whole eggs and yolks were some cheaper than before Easter. Whites and albumen continue in good demand and prices firm. There is nothing to put them up in price during the packing season

Thursday morning a market research mately 850,000 pounds during the first executive briefed supervisor and a week in May at about one-half cent higher. The Army also bought 750,000 pounda of whole egg solids. Government prices were not bullish. but took up considerable quantities of eggs. These purchases had a stabilizing effect. The long pull is for higher markets as pullet output is much below 1961, slaughtering is much heavier and with prices at present levels farmers are not feeding and caring for their laying hens. This will definitely tell in later production and market prices.

#### Whites Are Short

egg white situation, which is 6,204,000 pounds. Frozen egg stocks increased 12 pounds below 1961.

According to government reports, there were hens and pullets of laying in April 1961 and the average (1956-age on May 1, 1902 of 292,396,000 head, 1960) increase of 23 million pounds. compared to 287,671,000 a year ago or This would indicate a continued heavy production for quite sometime in 1962. April 1961. On the other hand, egg prices are low, feed prices have advanced so the hens will not be so well fed. Slaughtering is heavy. Weather was extremely hot for May. Egg quality suffered and production declined in some areas.

pretty well maintained country prices in spite of metropolitan market weakness. Feeling that present levels rep-

resent good values. Users have been buying freely. Breakers want to fill commitments while they can. The feeling is that prices will probably be higher later. Current receipts of shell eggs in the

Chicago market strengthened in mid-May to range 25 to 27 cents a dozen, but dropped at month's end to 22.5 to 25.5 cents. Frozen whole eggs were steady in a range of 23.5 to 24.5 cents per pound with whites nine to 10 cents. No. 3 color yolks edged off a cent at the end of May to be quoted at 51 to 53 cents a pound. Two to three cents a pound premium was paid for an additional grade in color. Dried whole eggs slid four cents to range \$1.00 to \$1.10 per pound. Dried yolks were steady at \$1.10 to \$1.20.

#### Egg Processing Trails

Production of liquid egg and liquid egg products (ingredients added) dur-ing April 1962 was about the same as in April 1961. Production totaled 75,-138,000 pounds, compared with 75,530-,000 pounds in April 1961. The quantities used for immediate consumption and drying were smaller than in April last year. The quantity used for freez-ing was larger. Liquid egg used for immediate consumption totaled 4,262,-000 pounds, compared with 4,407,000 pounds in April 1961. Liquid egg frozen during April totaled 47,231,000 pounds, compared with 45,855,000 in April 1961 The important item to notice is the and the 1956-60 average of 56,514,000 million pounds during April, compared with an increase of 13 million pou Quantities of liquid egg used for dryoximately a two per cent increase. ing in April were 23,645,000 pounds, compared with 25,268,000 pounds in

Egg solids production during April totaled 6,146,000 pounds, compared with 6,391,000 pounds in April 1961. Current production consisted of 3,539,-000 pounds of whole egg solids, 986,000 pounds of albumen solids, and 1,621,000 Supplies have been ample for all pounds of yolk solids. In April 1961, needs. The breakers and driers have production consisted of 4,563,000 pounds of whole egg solids, 868,000 pounds of albumen solids and 960,000 pounds of yolk solids.

THE MACARONI JOURNAL

#### UNITED STATES COLD STORAGE STOCKS

p- re	Thousands	5-1-82	5-1-61	5 year average
o	Shell Eggs, Cases	50	78	400
2.	Frozen Egg Whites	13.779	10 083	100
n.	Frozen Egg Yolk	17.532	17 355	20,300
d	Frozen Whole Eggs	26.421	25 082	20,097
e	Frozen Unclassified	2.228	3 610	32,031
s,	Total Frozen Eggs	59,960	66 030	9,300
	Total Eggs-Case Equivalent	1,568	1.772	93,048
	网络马克克斯马克尔马克斯马克斯马克斯马克斯马克斯马克斯	CALL LAST	A MARTINE AND A STATE OF THE PARTY	

## PROVEN AROUND THE WORLD FOR OUTSTANDING PERFORMANCE

# automatic CONTINUOUS







## DURUM QUALITY RESEARCH

by Vernon Youngs, L. D. Sibbitt and K. A. Gilles, Department of Cereal Technology, North Dakota State University

Vernon Youngs

cial grading of vitreous kernels is more detailed, the actual percentage of vitre-

ous kernels being cited. The non-vitre-

ous portion of the sample usually con-

sists of piebald, yellow berry, or

Weight per thousand kernels, which

is important in the foreign market, dif-

fers from test weight because the vol-

actual counting of kernels is done by

Milling Characteristics

ty are observed, recorded and evalu-

Milling characteristics of each varie-

Semolina yield is based on the

weight of clean wheat, at a constant

moisture level, going to the first break

roll. A low yield of purified semolina

does not necessarily give a better mac-

aroni product. The semolina should be

free from specks (caused by bran par-

ticles, black point, etc.) and have a good color; however, the color does

not usually carry through into the

Semolina and wheat protein content

is measured by the Kjeldahl method. Normally semolina protein is about one

per cent less than wheat protein. An

abnormally high spread in protein con-

tent is not desired, since it means an

excessive amount of the protein is in

portions of the kernel removed in the

milling process. Speaking strictly from

the processing standpoint, the protein

ume of the kernel is not a factor. The

starchy kernels.

electronic means.

ated.

macaroni.

LL THE major varieties of durum wheat grown in the upper Great Plains Region, with the exception of Mindum, were released at North Dakota State University.

The Department of Cereal Technology has worked in close cooperation with the U.S.D.A. durum plant breeder and as a result of this teamwork, 11 durum varieties have been released since 1943. The intent of this report is to cite the activities of one part of this team; the work of the Department of Cereal Technology.

#### **Routine** Procedures

Durum samples studied by Cereal Technology may be classified into two groups according to sample size:

1. The micro samples, which contain approximately 200 grams, are obtained from nursery plots from three to four stations in North Dakota. Several hundred of these samples which are generally handled each year, represent the third, fourth, or fifth generations. Some of the tests applied include milling, mixing characteristics, single strand macaroni production and color evaluation

2. The macro samples, which contain 3000 grams, are obtained from field plot varieties (one-fortieth acre in size) from six locations in North Dakota, namely, Fargo, Minot, Dickinson, Edgely, Langdon and Williston. More tests can be performed on macro samples because of their size.

The macro samples are subjected to the following quality tests:

Test weight and grade, which give indications of commercial acceptability. Kernel damage includes sprouting, black point, green type, broken and shrunken kernels, and other forms of damage. Studies at this laboratory have shown that a small portion of heavily sprouted grain is much more detrimental to quality than greater quantities of only lightly sprouted kernels (11). The same is true with black point; a mixture of 50 per cent lightly damaged (black point) kernels with 50 per cent undamaged has the same effect on macaroni color as five per cent heavily damaged kernels with 95 per cent undamaged (6).

Durum must have at least 75 per cent or more vitreous kernels according to commercial grade standards to be included in the subclass of hard amber durum. In this laboratory, the unoffi-

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quantity in semolina should not be too high or too low. Low protein has a tendency to produce crumbly doughs during the mixing and kneading, whereas too high a protein content tends to produce tough doughs.

inches.

Semolina ash determinations usually show an inverse relationship between per cent ash and semolina yield, with a low milling yield and high ash being undesirable. Ash and protein content do not appear to be as important as their counterparts in hard red spring wheat. Specks in semolina are counted

#### **Processing Characteristics**

Processing characteristics of dough during mixing and kneading are recorded. Physical dough characteristics are determined by the Farinograph and Extensograph for marro samples, and the Mixograph for micro samples. The absorption percentage is important. Improper low absorption, resulting in a stiff dough, usually produces a poor color macaroni, while optimum absorption produces an optimum color. The color does not change after optimum absorption is reached, other factors being satisfactory. If the dough is mixed too soft, the macaroni may stretch and drop off the rods during drying. In elbow macaroni this is not as serious a problem, unless the elbows collapse or stick together. However, the higher the absorption, the greater the time required for drying.

Good quality macaroni should not be mottled and should be free from checks and cracks. The color of the macaroni is determined by a visual comparison with a standard product prepared with semolina made from Mindum. The products are rated on an empirical scale from 1.0 to 10.0 units increments of 0.5.

#### **Cooking Characteristics**

Cooking quality is evaluated by number of determinations. Strands of macaroni are broken into 10 cm. lengths and cooked in water for a specified time at a constant temperature. After cooking the water should be relatively free of starch and solids. The macaroni is drained on a Buchner funnel and the water that passes through is collected in a tared beaker.

(Continued on page 34)



and reported as specks per ten square



#### Durum Quality Research-(Continued from page 33)

This liquid is evaporated and the residue determined; a low residue is deweighed and the increase in weight is due to water absorption. A high cooked weight is also desirable. The tenderness of the cooked macaroni is determined by means of a compressimeter. This measures the amount of pressure required to crush a single strand of macaroni. As the pressure is added, the results are recorded on a graph by an instrument called a kymograph.

Cooked macaroni should not be "rubbery" nor "mushy." The general ap-pearance of this cooked product should be creamy in color; a dull greyness is most objectionable. The strands should not stick together and the macaroni should be free of slime.

#### Past Research

Approximately 47 publications origi-nating in this department have appeared in the literature dealing with durum. Of these, about a dozen have been concerned specifically with the A brief summary of some of the results and conclusions reached in past research conducted follow.

Studies on the effect of sprout damage on durum showed the greatest effect on diastatic activity and macaroni color, the color decreased as the diastatic power increased. The test weight, vitreous kernel content and semolina yield were decreased, while protein, ash, and absorption were not affected appreciably (11). Somewhat similar results were noted when durum was harvested early; protein, vitreous kernels, test weight, semolina yield, and color score were decreased. However, absorption and ash showed an increase (3).

In research pertaining to color, significant differences in visual color scores of disks were found among varieties, pressures and pressing times, with the effect of variety being least marked. A pressing time of 60 seconds and a pressure of 2,000 pounds per sq. in. gave the most satisfactory results. A satisfactory relationship was evident between the color scores of disks and tubular macaroni made from the same semolina (7). Studies made on color production in pressed macaroni disks during oven drying have indicated that the brown color formation apparently is related to the formation of reducing compounds between amino acids and carbohydrates, possibly through a linkage with the amino groups. An alternative linkage might be through sulfhydryl groups of the amino acids (1).

In 1946 a paper was published deal-ing with the specific effects of pressure in the production of macaroni. Macaroni disks which received no pressure treatment contained great numbers of sirable. The cooked macaroni is air bubbles less than 20 microns in diameter, and were very opaque. Application of 3,000 pounds pressure per square inch gave translucent disks with bubbles 40 times as large in diameter, and reduced the number nearly 40,000 low exposed on the adjustable color times. Light transmission increased six disk of the colorimeter, and the visual times. Following the application of pressure there was a lag period before. significant changes in bubble size were . pears to be the resultant of two opposing and interdependent forces, decreas- emphasis being placed on basic reing bubble numbers and increasing search. bubble size (10).

Durum wheat flour in small lots can be employed in blends with hard red spring wheat without significant ill effects. It can be used with English low protein wheat flour with beneficial effects on water absorption and loaf volume. Preliminary experiments indicate that the damaging effect on crumb color of durum flour in low proportions could be eliminated to some degree by quality of new durum wheat varieties. bleaching (5). There appears to be some differences in the effect of variety on blend, with Kubanka being slightly better than the other varieties tested (8). In other baking tests, durum gluten was fractionated into three portions; below a pH of 5.0, 5.0 to 5.5, and 5.5 to 7.0. The fractions were dried, ground and added to a soft wheat flour. The fraction of the gluten between a pH of 5.0 to 5.5 gave the best baking results. The other two were poor. The fraction below a pH of 5.0 was high in proteolytic enzymes, which have a detrimental effect on gluten quality (2). In tests showing baking quality of starches, where starch was washed from different wheats and added to gluten and baked, durum showed the highest absorption and a low volume (4)

> Research in the area of starch gels has shown the strength of the gel varies with environmental conditions and that there is no apparent relationship between viscosity and gel strength (12). Conclusions reached relative to particle size of semolina have shown that a decrease in particle size causes generally higher absorption, a decrease in the semolina and macaroni color score, and a higher ash in the fraction with the smallest particles. The variety affects particle size distribution for semolina in approximately the same manner as for bread flour (9).

#### Current Research

Studies are underway in the Cereal Technology Department in an attempt

to develop relationships between thousand kernel weight and other characteristics of durum wheat. Work is also being done in developing a color scoring method utilizing the Macbeth-Munsell disk colorimeter. With tests performed so far on wet pressed macaroni disks, very good correlations have been shown between the calculated Nickerson score (13), the per cent yelrating scale used by this laboratory. If this procedure continues to prove satisfactory in future tests, it has the posevident. Light transmission, a measure sibility of greatly speeding the testing of translucency in macaroni disks, ap- procedures on new varieties. Other work is in progress, with considerable

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#### **Dane-T-Bits** Names Pellegrine

Joseph Pellegvino, president of Prince Mecaroni Manufacturing Com-pany, has been elected a director of the Dane-T-Bits Biscuits Company, Inc., Lowell-based biscuit firm. Dane-T-Bits operates branches in Auburn, Maine; South Attleboro, Massachusetts, and Bristol, Connecticut, and distributes 127 varieties of cookies, crackers and snack items throughout the six new England states.

#### National Macaroni Week Oct. 18-27

THE MACARONI JOURNAL



## SEECO CORP! Automated Systems & Equipment Engineering 1830 W. CLYMPIC BOULEVARD LOS ANGILES 6, CALIFORNIA DU 5-9091

#### JULY, 1962

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Reduce packing time and increase productivity. Demaco's new Spaghetti Weigher has all the time savings innovations that will reduce your packing time — here's why — Speed — average over 40 packages are accurately weighed per minute. Versatility — can handle the full range of dried goods: straight, curved, hooked and short ends. Now weighing Spaghetti, Spaghetticii, Macaroncelli, Perchatelli, Vermicelli, Linguini and Linguini Fini. Adaptability designed for all standard carton packaging machines. Can be supplied with a completely automatic feeding and conveying system direct from stripping machine. Accuracy — is maintained by Demaco's unique strand per strand dribble mechanism. Final weight is insured by highly sensitive opto electrical principle of frictionless weight indication, scales.

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JULY, 1962



weighs all types

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#### Glenn G. Hoskins

The macarem industry lost a man of great influence when Glena G. Hoskins passed away on May 14. He had been ill for some time undergoing major surgery in January

He was born August 31, 1391, or Pacific Junction, low... He received a degree in electrical engineering from Iowa State University at Ames. In 1916. as a utility electrical engineer, he converted the Foulds Milling Companyfrom steam power to electrical power He was then hund by Mr. Foulds to manage the plant and eventually be came general manager of the western division of Grocery Store Products Company who now owns Foulds

#### Association President

As president of the National Maca-rom Manufacturers Association in 1933-34 he was most active in gettally a standard cost system for the inductiestablished and adopted. He was elected by the industry as administrator of the NRA Code of Fair Practice for the Macaroni Industry When the National Recovery Act was declared unconstitutional, he founded the Glenn G. Hoskins Company, a consulting firm for the macaroni industry.

In 1933 he became Board Chairman of the First Lake County National Bank of Libertyville and in 1954 was elected president. He gradually turned over the operation of the consistent firm to the sons William and Charles and devoted tall time to the bank William has since joined the barn Charles remains in full charge of the consulting busines

#### Libertyville Tomorrow

Huskit



#### Glenn G. Hoskins

known as Labertyville Tomorrow. He realized that Libertyville was no longer a quiet little community but as a part of the suburban flood tide the business community must think in new terms and act accordingly. He became the prime mover in a plan to make ever the face of the business area. The local paper editorialized. "We hope hisplan will flower the way he envisioned it. It would be a fitting memorial." My Hoskins' survivors are his widow

Lenie, three sons, Charles M., William G. and Robert M. all of Libertyville: and nine grandchildren.

#### A Look at Doughboy

Doughboy Industries, Inc. started business as a small bread flour mill In the late 1930's a diversification plan was begin which was interrupted by and profits were \$1,096,862--up 106 pe During the past several years Glenn - World War II From 1941 to 1946, al. cent from the previous 12 months, A

volved in producing emergency rations for the Armed Forces. Renegotiation and taxes left them with little net gain in funds but they had learned skill which would later be useful

During the past 15 years they havpointed toward developing a strong or ganization, good product lines and modern factories General offices atin New Richmond, Wisconsin, alon, with the mechanical plant for produc tion of packaging equipment, a print ing plant, a feed plant and the Dough boy flour mill producing semolina an-durum flour for the macaroni industry A second feed plant is located in Ame lowa They have a poultry processin. plant at Eleva, Wisconsin; a plasta factory in West Helena, Arkansas, and Televiso Electropics at Wheeling, Iii. nots

#### **Bright Future**

In a letter to stockholders, President Edwin J. Cashman writes: "The future of our company looks bright to us. We have entered the second phase of our growth objective. The new growth will come from expan of companie that logically completent any one of our four major divisi as: feeds, paciaging machinery, plastics and electronics. Our management group at a levels has been and continues to be engaged in training programs which are fitting them for greater responsi bilities and better performance. They recognize the opportunities which b before them and they are eagerly ge ting on with the job."

Sales in the year closing January 2" 1962 were \$31,461,961-up 28 per cen spearheaded a movement most all of their activities were in- taxes were \$1,254,448--up 59 per cent

## **Ronco Builds A New Plant in Memphis**



New plant for Ronco Foods of Memphis at 800.1 Plans for the new clant with described in the Au auth Ba stale new estate for a pratery were required as a second s m trair for had some of the



Ranco president Albert Robilio a shows Bob Green some fine Ranco products. The new plant is all on one floor laid out for straight through flow of materials without criss crossing of pro-duction lines. Monatacturing area is designed to have no outside







#### The Individual— (Continued from page 6)

can form of voluntary association which undergirds this National Chamber federation. You can generate added personal power in citizenship affairs - amplify the volume of your voice, and the effect of your efforts. You can multiply your own usefulness, by increasing to the highest degree the part which your voluntary associations can play, and can permit you to play, in determining your own destiny, as well as that of the nation as a whole.

#### Local Leverage

As an individual, and as a participating member of your local, regional or state chamber of commerce, your trade or professional association, you possess the greatest leverage of action for good that is known today. You have at your disposal the mechanisms of organization, research, communication, and motivation. This is obvious to you, of course, and so I will not need to say anything more about it. What may be less obvious to you, in this time of de-emphasis of the individual and of a heavier accent on the individual's subservience to government is the fact that the single human being, the responsible citizen, is still the most powerful unit of action in this country. And that is a fact which must not be de-emphasized but, instead, must be exalted and celebrated.

The individual is, if you will, a power and a glory, with a mind and a soul and the incentive and ability to fashion his own destiny, the individual remains the central figure of life. He can do what he wants to do, and what he knows should be done. Like the first man in Tyler, Texas, who decided his "depressed area" label some wanted to a glory. place on it-like the man in Bay City who decided there be local control of education, and made it work-like the man in Connecticut who showed the way to a state-wide plan of private health insurance for older peoplelike the man in Phoenix who recognized the value of citizen participation in community development, and provided a way for citizens to do thatlike the man in Indianapolis who put to work his conviction that individual liberty is too important to be forfeited. These are but a few of the many individuals who have proved how effective one person can be.

#### Initiative

The facts in the case are these: Initiative is the hallmark of the individual. Without initiative, the individuality of the human figure is blurred.

Self-reliance is a compensation to initiative. Every effort to encourage initiative-to upgrade self-reliance-to inspire one man's dedicated effort-will enrich our morality, and will improve the whole code of social and political conduct which has characterized America's progress.

Anyone who acquiesces out of apathy or indifference or ignorance or choice to measures which restrict initiative, downgrade self-reliance, or which subjugate the individual to external forces, or anyone who fails to use to its full extension his ability to resist attempts to circle his daily life with unnecessary restraints is as deserving of blame as are those who actively promote such measures, or who advocate such attempts. This is especially true in the case of those with talents for leadership in citizenship affairs. Along with your ability and your privilege, there is an obligation to exercise your leadership talent-to protect and strengthen the principles which comprise the great hope for our continued progress.

If the leadership of the American business community will but accept its opportunity, and will set in play the tremendous leverage of action which it has at its call; if those in the organized business movement. the members of voluntary associations of business and professional men and women in all sections of the country, will apply their enormous capabilities, their resources, their earnestness and their good will to the issues and problems of the day; if American businessmen in ever increasing numbers will decide it is no longer proper for them to just sit on the sidelines, and will decide instead to take charge of the situation, working constructively in the public interest, then town neither needed nor deserved the the individual will remain a power and

#### Action Now!

But none of these things will come about UNLESS individuals take action. Not "soon"-not "later on"-not in a future vaguely defined-BUT NOW. There is nothing that cannot be accomplished by dedicated individuals but, by the same token, there is nothing that individuals can achieve through apathy, save their own destruction. Without facts, without information, without the tools of action, the individual is at a loss to be what he can be. But, with understanding and conviction the individual is a unit of responsible action in a free society, a symbol of hope for the preservation of our free market economy and our system of a federal government with wisely limited powers.

#### Take These Steps

These, then, are the vital and practical first steps which each individual in this room can take to maintain and perpetuate his proper standing in the scheme of things:

1. Get the facts - be knowledgeable about issues and problems.

2. Create, in yourself and others, understanding of what lies behind these issues and problems.

3. Develop deep and strong convictions about basic, unchanging principles which are fundamental to individual freedom and initiative; and 4. Train yourself to be an effective

and active participant in the political process which undergirds representative government.

In this fundamental way, you canwhere you are, and with what you have-be a force for good for your community and your country.

You can serve yourself, and serve the greater good of all. You can fulfill, for now, and for time yet to come, the power and the glory that is the individual. If you will.

#### Seek Lower Rates

Wheat men seek lower rail rates to West Coast ports. They hope this would let surplus United States wheat compete better against Canadian exports to the Orient. Some Western goyernors joined their fight. Railroads so far balk at straight rate cuts, but raise the possibility of a Federal subsidy.

#### **ADM** Appointment

Ernst (Ernie) Horstmann, a veteran of over 40 years in the flour and semolina business and associated with Chinski Trading Corporation, New York City, since 1949, will continue to maintain contact with the trade in the New York area for the flour and semoli division of Archer Daniels Midland. Mr Charles Chinski retired July 1.



THE MACARONI JOURNAL

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JULY. 1962



# So transparent...yet so durable!

V. La Rosa & Sons decided to switch from window boxes to transparent bags for their noodles. They wanted the extra sales appeal maximum visibility offers. But what film should they use? It had to be crystal clear. It had to provide proper protection for their premium quality product. It had to print beautifully. Equally as important, it had to be tough! Only one packaging material answered all these requirements-Avisco "T" cellophane. Since using printed bags made with this film. La Rosa Noodle sales have steadily increased. And bag breakage is virtually unheard of-on the packaging line, in shipment (even during bitter cold weather) or in the stores. This new bag proved so successful with noodles that La Rosa is now packaging their Fideos line the same way. If you want a film that provides superior strength-without sacrificing transparency-get the facts on "T" cellophane from your Avisco cellophane representative or converter. Or write to us.

3

# **"T" CELLOPHANE** AMERICAN VISCOSE CORPORATION, FILM DIVISION, 1617 PENNSYLVANIA BOULEVARD, PHILADELPHIA 3, PA. SALES OFFICES ALSO IN ATLANTA, BOSTON, CHICAGO, CINCINNATI, DALLAS, LOS ANGELES AND NEW YORK.





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#### Competitive System-(Continued from page 8)

critics deny or overlook. This is because they have a completely false idea of the nature and function of business npetition, Writers like Bertrand Russell for example, constantly talk of business competition as if it were practically the same thing as the competition of war. Nothing could be more false or more absurd-unless we think it reasonable to compare competition in providing consumers with better goods and services at cheaper prices with competition in mutual slaughter.

#### Social Cooperation

What the socialist critics of the free enterprise system have persistently failed to recognize or acknowledge is that business competition is an integral but indispensable part of a vast system of social cooperation. It is true that General Motors doesn't directly try to cooperate with Ford, and vice versa. But each tries to cooperate with the car buyer, and often with the same car buyer. Each tries to convince you that he can sell you a better car than the other, or as good a car at a cheaper price. And the only way he can convince you, ultimately, is to try to make a better car than his competitors, and to sell it for less. The result of this npetition, not only in the motor car field but in every field, is for the free economic system as a whole to turn out better and better products and services at lower and lower real costs.

This competition, to repeat, exists within, and as a part of, a far wider system of economic cooperation. The relationship of entrepreneur and worker, of employer and employee-in spite of all that has been said by socialists and bad economists and union bosses to confuse the issue-is basically a cooperative relationship. The entrepeneur hires the worker to help him produce a product. The more efficient management is, the more it can offer the worker. The more efficient the worker, the more the entrepeneur can pay him.

The seller and the buyer, the corporation and the customer, are cooperating. The manufacturer supplies the consumer with what the latter needs or wants, and the consumer supplies the manufacturer with the money and the profits to continue and to expand his production. The farmer and the manufacturer are mutual customers; and therefore the farm hand and the factory worker are ultimately mutual customers. There is competition between nations (or at least between the producers in those nations) for foreign trade and foreign markets; but this is much less important than the fact that these nations are mutual customers.

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nation could supply its needs alone. The system of economic cooperation covers the world.

Seen in this wider context, nothing could be more absurd than the constant denunciation of business competition as savage, cutthroat, and cruel. It is the pressure of competition that keeps improving products faster than any other means possibly could. It is the pressure of competition that keeps reducing costs of production. Competition, in fact, leads to "the least-cost method of achieving the end of consumer satisfaction." Competition, in brief, is the great spur to improvement and innovation, the chief stimulant to research, the principal incentive to cost reduction, to better products, and to improved efficiency of every kind.

#### No "Perfect" Competition

At this point we must say a few words about the astonishing misconceptions of the role of competition that have got into recent economic literature. Competition does not exist for its own sake; it is not the end, it is a means to the end. The ideal of so-called "perfect" competition is not realizable. It is even in some respects self-contradictory. There is no point in having an infinite number of competitors, the output of none of whom is large enough to affect the price, and none of whom is ever driven out of competition. The so-called "perfect" or "pure" competition envisaged by some economists would be a competition in which nobody ever won and nobody ever lost. It would be like a chess match in which every game was a draw, a tennis match in which the score was perpetually at deuce or in which the set was never completed, a race that always ended in a tie.

In economic competition, even more than in games, somebody must finally win, and a few must relatively lose. This does not mean merely that A will make a larger profit margin than B. because his costs are lower. It means that all those who cannot succeed in keeping their costs below the market price brought about by total production must be forced out of the competitive race altogether, while their lowcost competitors increase their production. This is the chief way, in fact, in which consumers eventually get the advantage of the lower-cost production of the more efficient competitors. So in all real competition (as opposed to the " Yes there is plenty of competition concept of so-called "perfect' competi- in the American steel business. In fact, tion) the persistently inefficient com- over the whole economy, that competipetitors are eventually forced out of the field.

But competition is never merely themselves commonly assume it to be. competition in lower costs in produc- People may quit going to the movies

Each helps to supply the other with its ing an identical product. It is almost needs cheaper and better than any one always competition in improving the product. It is competition in innovation. It is precisely because competition is "imperfect"-because all producers are not equal, because some producers do have advantages over others, of location skill better resources, know-how that competition brings about its great blessings for the consumer.

#### Folklore

My assignment in this short paper is to discuss the essentials of a competitive system. This does not give me much opportunity to answer the many arguments that our present system is not truly competitive but monopolistic, or one of "oligopoly," or one of "administered" prices. I do not think these contentions have much cogency: but after the events of the last few weeks we cannot doubt the flerce intensity with which they are held.

They have become part of a new American folklore. The reason Mr. Kennedy was able to force the big steel companies to rescind their announced price increase is that the majority of the American public, or at least of the American press, do not believe that competition determines prices in the steel industry. They think those prices are fixed by an arbitrary decision of a few giants.

It is true that the steel industry, as compared with the grocery business, consists of a relatively few big units. Nevertheless, it is an intensely competitive industry. There are more than 275 individual companies with plants located in 300 communities in 35 states engaged in the production and finishing of iron and steel. About a third make the raw steel, and others make semifinished products. They are compelled to meet each other's competition not only in prices, but in better product quality, in new products, and in improved customer services. They are compelled to meet the competition of the steel producers of other countries not only in their markets but our own markets. The participation of the United States in world steel trade has dropped from about 17 per cent of the total in the early 1950's to an average of less than seven per cent during the last three years. In 1957 we exported five times as many tons of steel as we imported. In 1959 the United States became for the first time a net importer of steel. That situation has continued.

tion is far more extensive and omnipresent than even most businessmen

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because they buy a television set instead. If they find the price of a car too high, they may take taxis instead. Or they may use the subway if taxis are too high. Everybody is competing for the consumer's dollar. What he spends on commodity X he cannot spend on service Y.

We are constantly reading nowadays comparisons of the American system and the Russian system, comparisons of capitalism and communism. They are being compared in three major respects-in the amount of liberty they respectively permit, in their respective claims to being "just" systems, and finally in their respective achievements in productivity. I think the capitalist system is incomparably superior in all three respects. That the capitalist system is immeasurably superior in productivity, no one who has made realistic comparisons can doubt. But there is an even more important point that is sometimes overlooked. The reason the capitalistic system is immeasurably superior to communism ir. productivity is precisely because it gives more liberty to the individual-precisely because the justice of its rewards in proportion to the labor, skill and talent of each (as others value that labor, skill and talent), gives the maximum incentive to Earl Finch on the fifth of May in Glen each of us to increase his production to Rock, New Jersey.

the utmost and to cooperate with his fellows in maximizing our total production

#### Prize What We Have

The superior freedom of the capitalistic system, its superior justice, and its superior productivity, are not three riorities, but one. The justice follows from freedom, and the productivity follows from the freedom and the justice. We can defend and keep this system only if we know how to value it. Shakespeare says:

. . . For it so falls out, That what we have we prize not to the worth.

- Whiles we enjoy it, but being lack'd and lost Why, then we rack the value:
- then we find

The virtue that possession would not show us.

Whiles it was ours. If we ever lose our system of economic freedom, we may never be able to get it back. Let us know how to prize it while it is still ours.

#### Marriage Announced

Mr. and Mrs. John P. Zerega, Jr., have announced the marriage of their daughter Mary Josephine to Mr. Peter



Room or the Homestead Club. In all, the program planned at this delightful spa should be worthwhile and stimulating.

If a book be false in its facts, disprove them; if false in its reasoning, refute it. But. for God's sake. let us freely hear both sides .- Thomas Jefferson.





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#### Emphasis on Fundamentals-(Continued from page 4)

in a nutshell the story of this world famous spa located in the verdant vallev of the Virginia Alleghenies.

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# WAY BACK WHEN

#### 40 Years Ago

At the Nineteenth Annual convention of the National Macaroni Manufacturers Association, held at Niagara Falls, Henry Mueller of the C. F. Mueller Company, Jersey City, New Jersey was elected president of the Association. Other officers elected were: E. Z. Vermylen of Brooklyn; Lloyd Skinner (not the present one), Omaha, and Fred Becker of Cleveland.

Falls, told macaroni manufacturers that the food industry had to study larger relationships and work together to reach world markets.

• The problem of domestic distribution was discussed by Alvin E. Dodd of the Chamber of Commerce, Washington, D.C. He urged manufacturers to get behind their trade association more strongly than ever, map out their problems and work together solving them. Second, get your own house in order and then cooperate with wholesaling groups in helping them solve their problems.

· Discussing macaroni conditions, pan-Company, Chicago, P. F. Vagnino, American Beauty, Denver, and E. Z. Vermylen, A. Zerega's Sons of Brooklyn, stated that (1) steady consumer demand indicated by low stocks and frequent orders; (2) over production accounted for low prices and cut rates and (3) education of the American housewife as to food value, economy and method of preparation was sorely needed .

#### 30 Years Ago

. The theme of the Twenty-ninth An- Frederick Mueller of Jersey City, New "Eliminate Waste and Modify Uneco-• In his message to delegates at the tion was held at the Hotel General

· Simplification of package size would high as 1,500,000,000 pounds. result in reduction of cost, and elimi-nation of waste, was advice given manufacturers by Mr. W. E. Braith-R. Allan Hickman of the Dobeckmun Practice of the Department of Commerce.

• The Thirty-ninth Annual N.M.M.A. convention considered problems resulting from war conditions Discussions included price ceilings and possible relief; conservation of materials; transportation problems; and priorities affecting needed repairs and replacements.

20 Years Ago

· Philip R. Winebrener of the OPA, Baltimore, Maryland, told manufac-· Alexander Porter, president of the turers that price control would not be Shredded Wheat Company, Niagara easy but it was distinctly a war effort which would be discontinued with the coming of peace.

• "Good macaroni-good spaghetti-all good things made from wheat are as essential as planes, tanks and ships." Mr. James M. McConnell of the War Production Board told macaroni men. · Twenty-six different shapes of macaroni were to be eliminated for the duration of the war. This was an economy measure, to save dies and packaging, agreed upon by all manufacturers.

· Slack filled packages were discussed by Henry Mueller and Director of Research, Benjamin R. Jacobs with the elists C. S. Foulds of Foulds Milling Food and Drug Administration. The suggestion of the Association representatives for the FDA to permit more tolerance in determining when a package is slack filled was received favorably.

#### 10 Years Ago

. Thomas A. Cuneo, president of Ronco Foods, Memphis, Tennessee, was elected president of the N.M.M.A. at the annual meeting in Montreal, Canada, June 25-27, 1952. He succeeded C.

nomic Trade Practices." The conven- convention, President Mueller said that government estimates showed that by Brock, Niagara Falls, Ontario, Canada. 1961 population would increase 14 per • In his annual address President Ze-rega said that individualism must be of food would be 17 per cent or 18 per supplanted by group action and he sug- cent above 1951 levels. This would gested that more thorough use be made mean that 1961 macaroni sales would of the Association's setup and services. be around 1,320,000,000 pounds. Muel-· Association Director, John Ravarino ler predicted that with steadily increasof St. Louis urged manufacturers that ing per capita consumption expected macaroni standards be defined and in the next ten years, through a good adopted by the Agriculture Depart-ment. publicity program, manufacturers could expect macaroni sales to be as

waite of the Division of Simplified Company. The package should tell the customer what she is buying, give recipes and be price marked clearly.

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175. Macaroni Journal, Palatine, III. FOR SALE-Ambrette Press with Spreader. Box 178, Macaroni Journal, Palatine, III.

FOR SALE—Used Senzoni Spaghetti Cutter. Box 181, Macaroni Journal, Palatine, III.

FOR SALE—Complete egg dosing system. Stainless steel, two 75-gal. tanks, mixers, pumps, valves, piping and elbows. Box 193, Macaroni Journal, Palatine, III.

FOR SALE-1 Pavan Press P300 with vacuum capacity 400 to 600 lbs. Will give one year guarantee. This press can be used to extrude a sheet for noodle, for raviali, for long spaghetti, and short-cut spaghetti. Box 195, Macaroni Journal, Palatine, III.

#### FOR SALE

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