THE MACARONI JOURNAL

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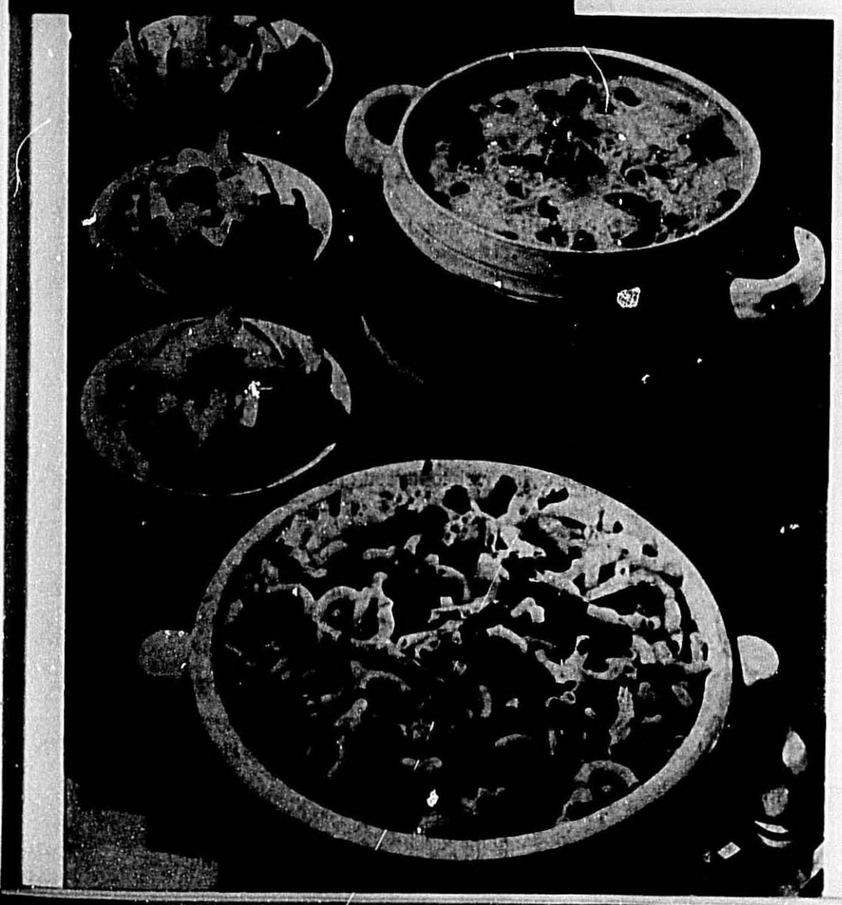
No. 1

May, 1969

Macaroni Journal

MAY, 1969

SOUP TO DESSERT



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In This Issue:

Cover Photo

Macaroni is great in soups, salads, or casseroles. Some of the favorite recipes of NMMA Directors are given on pages 6 and 7.

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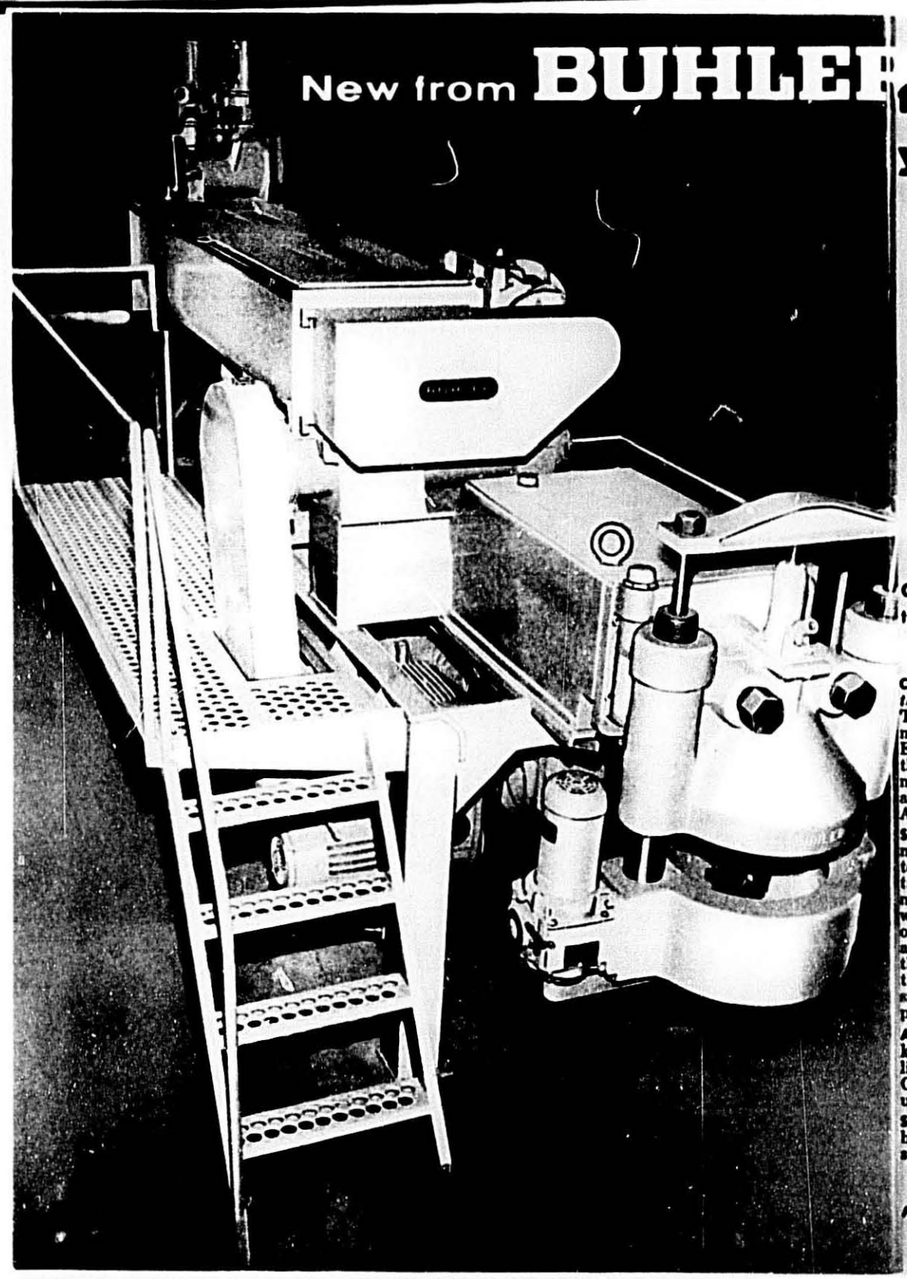

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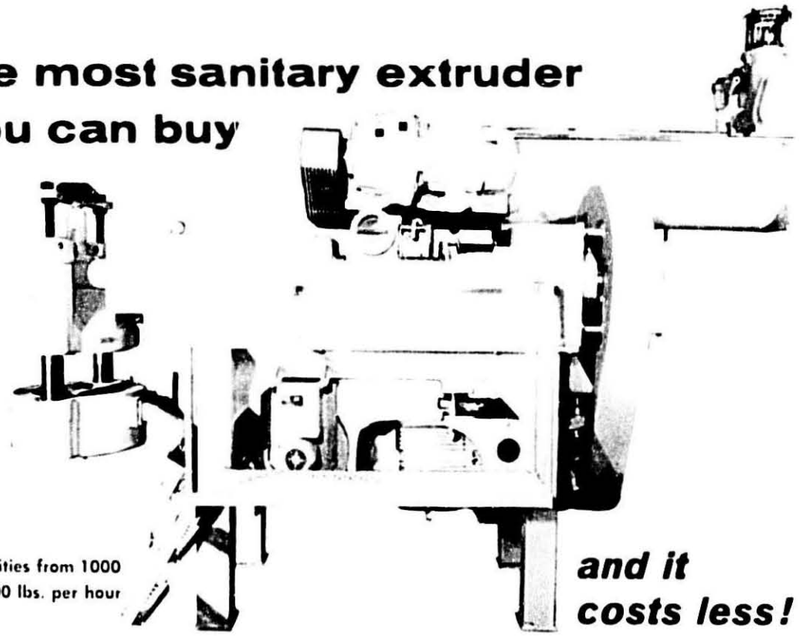

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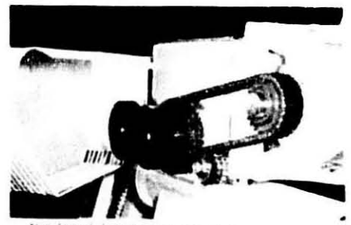
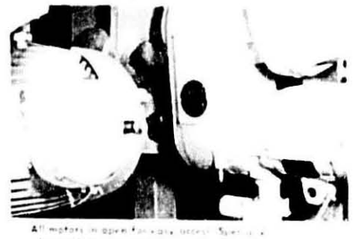


Note hinged chain guard on rear ...



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Macaroni - Soup to Dessert

NMMA Directors contribute recipe ideas for press party.

Macaroni Waldorf Salad

Minestrone
Albert Ravarino
(Makes about 2 quarts)

2 tablespoons olive or salad oil
1 cup grated carrots
1 cup chopped onion
2 cups shredded spinach
2 quarts water
4 beef bouillon cubes
1 can (15 ounces) red kidney beans
1 can (3 ounces) chopped broiled mushrooms, undrained
Salt
Pepper
1 bay leaf
3 tablespoons chopped parsley
2 cloves garlic, minced
½ teaspoon basil
4 slices bacon, diced
2 cups elbow macaroni (8 ounces)
Freshly grated Parmesan cheese

Heat oil in large saucepan. Cook carrots, onion and spinach 5 minutes. Add water, bouillon cubes, kidney beans, mushrooms, salt and pepper to taste and bay leaf.

In electric blender, puree parsley, garlic, basil and bacon (or put through food chopper). Stir into soup mixture. Cover, bring to boil and cook over low heat 45 minutes. Add macaroni and cook, uncovered, 15 minutes more or until macaroni is tender. Serve with grated Parmesan cheese.

Marseillais Fish Soup
Paul Vermylen
(Makes 6 servings)

1 cup sliced leeks or green onions
2 cloves garlic, minced
¼ cup olive oil
1 tablespoon flour
2 tomatoes, peeled and chopped
¼ cup chopped parsley
1 whole bay leaf
1 tablespoon salt
¼ teaspoon pepper
Pinch of saffron
2½ to 3 pounds fish* (bone-in)
2 quarts water
4 ounces small shell macaroni (about 2 cups)
1 cup cooked crab meat (or 1 can, 6½ ounces)

Over medium heat, cook leeks and garlic in oil 3 minutes. Add flour and stir until lightly browned. Mix in tomatoes, half the parsley, seasonings, fish and water. Cover and simmer about 20 minutes or until fish is done. Remove most of fish; cool a bit and remove bones and skin; reserve. Force soup and solids through a sieve, taking care to strain out all bones. Bring stock to boil; add macaroni. Cover and cook 10 minutes. Stir well; add fish and crab meat; cook 5 to 10 minutes longer, or until macaroni is done. Before serving, add remaining parsley.

*If extra fish bones and trimmings are available, tie in cheesecloth and add mixture with the water. Remove before cooking macaroni. Your favorite fish may be used for this soup; just be sure to select a type of fish with bones easy to strain out of broth.

Macaroni Waldorf Salad
Albert Robillo
(Makes 8 servings)

1 tablespoon salt
3 quarts boiling water
2 cups elbow macaroni (8 ounces)
3 cups diced red tart apples (about 3 medium)
1 cup dark seedless raisins
1 cup diced celery
½ cup broken walnuts
2 to 3 teaspoons lemon juice
1 cup heavy cream
2 tablespoons sugar
1 cup dairy sour cream
¼ teaspoon cinnamon
¼ teaspoon vanilla
Salt
Crisp lettuce

Add 1 tablespoon salt to rapidly boiling water. Gradually add macaroni so that water continues to boil. Cook uncovered, stirring occasionally, until tender. Drain in colander. Rinse with cold water, drain again.

In large bowl, combine macaroni, apples, raisins, celery and walnuts. Sprinkle with lemon juice.

Whip cream with sugar until soft peaks form; fold in sour cream. Add cinnamon, vanilla and salt to taste. Fold into macaroni mixture. Chill. Serve on lettuce.

Spaghetti and Spinach Dinner
H. Edward Toner
(Makes 4 servings)

1 medium onion, finely chopped
¼ cup butter or margarine
¼ cup flour
1½ teaspoons salt
¼ teaspoon oregano leaves
⅛ teaspoon nutmeg
Dash pepper
2¼ cups milk
1 tablespoon salt
3 quarts boiling water
8 ounces spaghetti
1 package (10 ounces) fresh spinach, cooked and drained
6 hard-cooked eggs, quartered
2 slices sharp process American cheese, diced

In saucepan, cook onion in butter until crisp-tender; blend in flour, 1½ teaspoons salt, oregano, nutmeg and pepper. Gradually add milk; cook, stirring constantly, until sauce boils 1 minute. Remove from heat and cover.

Add 1 tablespoon salt to rapidly boiling water. Gradually add spaghetti so that water continues to boil. Cook uncovered, stirring occasionally, until tender. Drain in colander. Turn half into 2-quart casserole.

Top spaghetti with spinach and half the eggs, cheese and sauce. Add remaining spaghetti, cheese, eggs and sauce. Bake in 350° (moderate) over 25 minutes, or until bubbly. Garnish as desired.

Upside Down Noodle Kugel
C. Frederick Mueller III
(Makes 8 servings)

1 tablespoon salt
3 quarts boiling water
8 ounces medium egg noodles (about 4 cups)
½ cup butter or margarine
3 eggs
½ cup sugar
1 teaspoon grated lemon peel
¼ teaspoon salt
2 cups milk
2 tablespoons toasted blanched slivered almonds
½ cup firmly-packed dark brown sugar
1 can (1 pound, 14 ounces) pineapple slices, drained

Add 1 tablespoon salt to rapidly boiling water. Gradually add noodles so that water continues to boil. Cook uncovered, stirring occasionally, until tender. Drain in colander; toss with 3 tablespoons of the butter.

Beat together eggs, sugar, lemon peel and ¼ teaspoon salt; stir in milk and almonds. Toss noodles with egg mixture. Melt remaining butter in bottom of 2-inch square baking pan. Sprinkle brown sugar in bottom of pan; arrange pineapple slices on top. Add noodle mixture. Bake in 350° (moderate) oven 40 minutes or until set. Cool. Turn out onto platter. Serve with dairy sour cream, if desired.

Pasta Profit Pointers

Howard Lampman, Executive Director of the Durum Wheat Institute, introduced a new publication "Pasta Profit Pointers" at the recent Winter Meeting of N.M.M.A.

Planned for quarterly release to the hotel-restaurant-institutional trade, the bulletin will carry news and ideas. Core idea of the project is the education of the food service industry in the advantages, correct preparation, service and merchandising of spaghetti, macaroni and noodle dishes made from top quality pasta.

Howard Lampman

Self Mailer

The bulletin is designed as a self-mailer. It may be imprinted with a company or brand logotype and mailed to customers and prospects within a manufacturer's marketing area.

Volume 1, number 1 has background material entitled "Macaroni Products—the Versatile Food for Year 'Round Profit." Chef's Hat is tipped to Cornelius Janesen, head chef at the Pinehurst Country Club in Denver, and 1967 recipient of the Chef of the Year Award of the Colorado Chefs de Cuisine. He returns the salute with his recipe for Veal Milanese with spaghetti. Recipe and photo for Cheesy Tuna Loaf is also given. Offer is made for 32 Quantity Recipes recently developed by the Institute's Test Kitchen at one dollar per set.

The H-R-I program is sponsored jointly by the Durum Wheat Institute, the Macaroni Institute, and the North Dakota Wheat Commission.

Important Market

Mr. Lampman points out that this market is important to macaroni manufacturers in two ways: first, as an immediate tonnage market; second, as a sampling market where the public learns to love pasta. "It has been demonstrated," Mr. Lampman contends, "that the HRI market can be educated to buy quality, not price—especially when the few cents extra for a better pasta provides so many advantages. The products people learn to like in restaurants are the products they tend to make at home, and the success of the macaroni industry, perhaps more than any other, is proof of this fact."

Future issues of Pasta Profit Pointers will offer new recipes for quantity food service and feature each time the success story of one chef or cook in the creation of a pasta dish. Ideas and facts will be offered on how to create menu interest in pastas, why quality products are more profitable in the long run, how profits can be increased.

Quantities of five hundred sell for $161.80 f.o.b. Chicago.

Food Service Seminar

A technological gap exists between the food service operator and the food and food equipment manufacturers.

That charge was leveled by Edward G. MacMillan, vice president-hotel operations, Sky Chefs, Inc., during the just completed Third Annual Food Service Seminar sponsored by Buchen Advertising, Inc.

"Sky Chefs has at least three units within the country that suffer a labor turnover of almost 20 to 25 per cent a month, despite the fact that we are the most stable firm in the industry in terms of turnover," MacMillan pointed out.

He cited this reason:

"Our overall economy has increased the standard of living tremendously. As a result, the wherewithal and the leisure time to enjoy it have expanded to such an extent that while the demand for our hospitality services is there, the ability to provide them fully, effectively and profitably is not."

MacMillan said that the progress of the food and food equipment manufacturers, "has not been enough, quantitatively, not rapid enough to keep pace with this demand."

Playing the role of a "protester" (food service operator) against the "establishment" (food and food equipment manufacturers), he added:

"We say that the product has not reached the stage of sophistication so that it can be used throughout the industry. We hold the establishment responsible for the fact that in many cases we must still prepare food, and often the same type of food, as it was done 20-25 years ago."

He suggested that the establishment put its best talent to work on the problems facing the food service industry.

"Help us solve our problems and I assure you that we will help in solving yours by maintaining an ever-growing production capacity," he said.

MacMillan was introduced by Richard W. Brown, executive vice president, National Restaurant Association.

Communicating for Profit

A number of other outstanding food service industry leaders also presented talks on the Seminar's theme, "Communicating For Profit."

These included James Bennett, food service marketing director, Uncle Ben's, Inc.; Mario Carotti, food service department, M. W. Houck, Inc.; Arthur Tamaroff, assistant to the president, Embassy Grocery Corp.; and Robert Minners, president, Minners Glass Co. plus Dewayne Grissom, food facilities

(Continued on page 9)

Food Service Seminar —

(Continued from page 7)

nsultant, Cini-Grissom Associates, Robert E Greeley, vice president, Smith-Barney, Inc and Reuben Cordova, executive director, Institutional Foodservice Manufacturers Association

Subject matter revolved around various themes, including how to build more profitable relationships between manufacturers, brokers, distributors, and end-users; the coordination of food and food equipment with the food facility; the future of the food franchise and the international food service situation

Expert Panel

In addition to MacMillan, Grissom, Minners and Greeley, a panel of food service experts which answered questions from the floor, were Sister Mary Kateri, director of dietetics, Mercy Hospital, Rockville Center, New York; Dr Ulrich S May, director of food service, Fairleigh-Dickinson University, Rutherford, New Jersey, and C C Snowdon, director of research and standards, Automatic Retailers of America, Philadelphia, Pennsylvania Walter W Chaffee, Buchen senior vice president, acted as moderator and introduced all speakers

Emery Dobbins, Buchen board chairman, said the Seminar set a record attendance with some 55 individuals from all areas of the food service industry registering

Restaurants in Chicago's New McCormick Place

A capable cook depends on quality ingredients to turn out a good meal. When as many as 25,000 persons are to be served in new McCormick Place one day it will be equally important to organize a team of the finest professional food specialists who know how to operate modern equipment and handle all phases of high volume feeding—preparation, storage and service

Three Basic Types

There are to be three basic types of restaurants in the new building Each is to have its own kitchen and all other requirements to make possible completely independent operating schedules These restaurants would be classified as full service, counter service and self service systems. Each is to be tailor-made to reflect facts and opinions accumulated from operating experiences

Self Service Complex

A complex of self service restaurants is to occupy about 53,000 square feet of space Although the number of units in this complex has not yet been determined, the idea would be to schedule operating programs consistent with the number of visitors in the building during meal time periods

Past records will provide the starting basis for estimating attendance for future events After the building resumes operations there will be special reporting systems, operated electronically, which will continuously report the number of persons and vehicles on the property at all times Central Control Station will interpret these facts for the guidance of restaurant management

These self service restaurants might be compared to shopping in a super market That is, various food items and complete meals are to be exhibited on island-type displays around which visitors may walk to examine each offering before making selection The same items are to be displayed at a number of locations This technique intends to reduce, and perhaps eliminate delays caused while food selection is being made Also, the more popular presentations will be in greater numbers than the specialty items

12 Minutes For Eating

In self service restaurants, the average time used for eating has been 12 minutes With an effective food selection system it is hoped that a person in a hurry may have a satisfactory meal experience in a total of 20 minutes This has been suggested by many exposition exhibitors and visitors to McCormick Place

Not everyone wants to eat in a self service restaurant nor during the short operating hours that are likely to be maintained Desire for a change of atmosphere might be another influence

Counter Service

The counter service restaurant is to be the "workhorse" of the building It is to operate from early morning at 4 into the evening One of its important objectives is "to serve persons who may want between-meal snacks, sandwiches and similar items prepared on order It is to have about 200 counter seats

Other items are to be offered in this unit, including tobacco, candy bars and an appropriate variety of sundries Some people might call this a drugless drug store with food

Leisurely Dining

In the approximate area of the original Presidents' Walk there is to be a completely redesigned a la carte type restaurant with basic seating for about 200 The attitude of this restaurant is for leisurely dining, and the objective will be to encourage advance reservations

There are to be a number of private dining rooms adjacent to the main dining room They will be equipped to serve as private party rooms for a minimum of about 50 persons each There are to be larger rooms in an adjacent area All these rooms should provide attractive opportunities for gradual and other parties in conjunction with theatre events and various other type food functions

About the only difference between private parties and banquets is that banquets are usually scheduled much further in advance and set menus prevail About 40% of the banquets staged in McCormick Place were sponsored by local groups while the others were associated with expositions

The biggest banquet in 1966 was attended by 7,500 who assembled to hear of President Johnson A total of a quarter million persons attended banquets that year Each year there were substantial increases in banquet attendance Similar increases are expected in future years

Planning Facilities

Food procurement, storage, preparation and serving are elementary challenges to management of the new restaurants now being developed Almost one third of the days each year visitor attendance was less than 5,000 persons There were crowds in excess of 10,000 persons a day about 100 days a year Thus there was wide amplitude in the number of persons who wished food service each day With increased facilities which will permit the scheduling of more expositions each year it is expected that daily attendance averages will increase in future years

Take a Chance

"I never condemn a man for making a mistake I will condemn a man who plays it coy, who refuses to expose himself to failure Such a man is worse than useless He spreads the paralysis of caution up and down and across the organization" —Murray D. Lincoln

Instant Management

"There are too many people today with managerial responsibilities who profess deep interest in understanding others but who are not really willing to give the time and energy such a noble purpose requires Alas, they are really interested in 'instant' management Most of them, I have observed, deserve the thin and tasteless brew they get" —David S. Brown

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LIPIDS OF DURUM WHEAT AND THEIR ROLE IN DISTINGUISHING DURUM FROM COMMON WHEATS[1]

K. A. Gilles[2] and V. L. Youngs[3]

Cooperative investigations between the North Dakota Agricultural Experiment Station and the Crops Research Division, Agricultural Research Service, U.S. Department of Agriculture, Fargo, North Dakota. Published with the approval of the Director of the Agricultural Experiment Station, North Dakota State University, Fargo, North Dakota as Journal Series No. 92.

The problem of detecting small amounts of farina in semolina has stimulated basic chemical investigations in **Triticum aestivum L.** (T. vulgare) and **Triticum durum** both in Europe and in the United States. Since **T. aestivum** has physical and genetic properties different from those of **T. durum**, cereal chemists have thought that distinct chemical differences should exist between the two. Most attempts to solve the problem of detecting farina in semolina have been directed through the lipid fraction. This paper summarizes the composition of the lipids. It also discusses some of the procedures proposed for detection of farina in semolina.

Fig. 1. A Photovolt densitometer, used to analyze thin-layers chromatotypes.

Methods of Analysis

Wheat lipids are normally extracted from ground grain by shaking, stirring or refluxing the sample in an organic solvent such as ether, chloroform, acetone, alcohol, or a combination of solvents. Water is often incorporated with solvents such as butanol to effect a more complete extraction of the polar lipids.

Both qualitative and quantitative analysis of the lipids are handled through various chromatographic means. The technique of column chromatography utilizes a glass column filled with a solid phase, such as silicic acid. The crude lipid sample is introduced at the top of this column and carried through with various solvent systems. The more polar lipid materials, such as the phospholipids, tend to resist being carried through the column, unless the eluting solvent system is quite polar also. The eluted lipids can be collected in a fraction collector, and each fraction can be analyzed further by other means.

The relatively new technique, thin-layer chromatography, utilizes a glass or plastic plate coated with a suitable solid phase, such as silica gel or aluminum oxide. The crude lipid is spotted on the plate, which is then developed in a tank containing a small amount of solvent or mixture of solvents. As the solvent proceeds up the plate by capillary action, the lipid components are separated. The location of the separated components can be visualized by various methods, such as exposing to iodine vapors, or spraying with sulfuric acid and charring. If the spots produced are permanent, quantitative data may be obtained by densitometry. A Photovolt[4] densitometer, especially designed for thin-layer plates, is shown in Figure 1.

Gas-liquid chromatography is another useful qualitative and quantitative tool for lipid analysis. It first obtained fame in fatty acid analysis, but has since been used for analyzing practically any lipid material that can be volatilized. The gas chromatograph utilizes a heated column of metal or glass, packed with an inert solid material coated with a liquid phase. A lipid material that is injected into the heated column will vaporize and be carried through by an inert gas. In the process, the vaporized lipid partitions between the liquid and gaseous phase, and causes a separation of the components comprising the injected lipid.

Infrared spectroscopy aids in the identification of the components of the lipid fraction. Molecules absorb energy at specific wavelengths, and in infrared analysis, this absorption is normally measured at wavelengths longer than 2 microns.

The Problem of Detecting Farina in Semolina

As previously mentioned, most of the attacks on this problem have been directed through the lipid fraction. Some slight differences in the amount of components making up the lipid fraction have been shown to exist when durum lipids have been compared to those from common wheat. Methods employed to detect significant differences in farina and semolina lipids include: fatty acid content as analyzed by gas chromatography, infrared spectra, sisterol palmitate as isolated by cold temperature precipitation, and saturated sterol ester content as isolated by thin-layer chromatography and measured by densitometry. These techniques will be discussed briefly.

Fatty Acid Analysis

Fabriani (1) and Franciosi and Giovannini (2) have analyzed total fatty acid content of soft (i.e., common) and durum wheats by gas chromatography. In general, these durum wheats contained a greater amount of palmitic and oleic acids, and less linoleic acid than did the soft wheats. Also, considerable variation among varieties within each class of wheat was reported. Franciosi and Giovannini suggested that the differences in fatty acid content between wheat classes might be used as a method of detecting the presence of farina in semolina by employing the following ratios:

$$\frac{\text{Palmitic acid}}{\text{oleic acid}}$$

$$\frac{\text{Linoleic acid}}{\text{oleic acid}}$$

$$\frac{\text{Palmitic and linoleic acid}}{\text{oleic acid}}$$

We have conducted fatty acid analyses on wheat samples grown in the State of North Dakota, USA. The petroleum ether extract of 4 durum varieties, Mindum, Sentry, Wells and Lakota, and Selkirk, a hard red spring wheat, were analyzed for total fatty acid content (free and esterified). The methyl esters of the fatty acids were prepared with methanol and boron trifluoride and analyzed by gas chromatography. Although these varieties of wheat, as well as the environment, were different from those analyzed in Europe, similar trends were noted when the major fatty acids of durum were compared in quantity to those present in Selkirk, a common wheat. Some of these values are shown in Table I.

TABLE I

Fatty Acid Composition of Semolina and Farina

Fatty Acid	Semolina Range of 4 Varieties %	Semolina Average %	Selkirk Farina %
Myristic	0.1- .2	0.1	0.2
Pentadecanoic	-	0.1	0.1
Palmitic	21.9-26.4	23.5	22.4
Palmitoleic	0.4- 0.7	0.5	0.5
Margaric	trace - 0.3	0.2	trace
Stearic	1.1- 1.3	1.2	1.0
Oleic	10.8-14.7	13.0	9.2
Linoleic	56.9-58.7	57.7	62.4
Linolenic	3.4- 3.9	3.6	4.1

We have extended the fatty acid analysis to several different fractions of these wheat lipids. These lipids were fractionated on a silicic acid column by means of a discontinuous elution system (3). A typical weight distribution curve is shown in Figure 2, together with the different solvent systems used for elution. These seven fractions appear to contain the components shown in Table II.

TABLE II

Major Components of Wheat Lipids

	% of the Total Lipids	
	Semolina[1]	Selkirk Farina
1. Hydrocarbons and sterol esters	1.3	4.7
2. Triglycerides	66.7	53.1
3. Free fatty acids	5.1	5.5
4. Diglycerides, free sterols and others	8.1	4.9
5. Unidentified	2.8	2.7
6. Pigments and monoglycerides	5.2	8.7
7. Polar fraction containing phospholipids	10.7	21.3

[1] Average of 4 varieties

Fatty acid analysis of each of the 7 fractions was performed by methylating and analyzing the methyl esters of the fatty acids by gas chromatography. In most cases, similarities with previous analytical results were noted between the two wheat classes. Although fatty acid analyses can be determined easily and accurately by means of gas chromatography, it is doubtful that this method alone would be sufficiently definitive to be of practical value in determining the amount of farina in semolina. The differences in amount of the major fatty acids present in **T. durum** and **T. aestivum** are not great; moreover, no significantly greater differences were found when the fatty acids of the seven major lipid fractions were compared. In addition, it has been shown (Table I) that variations in the fatty acid composition among different varieties (1,2) of each class of wheat exist.

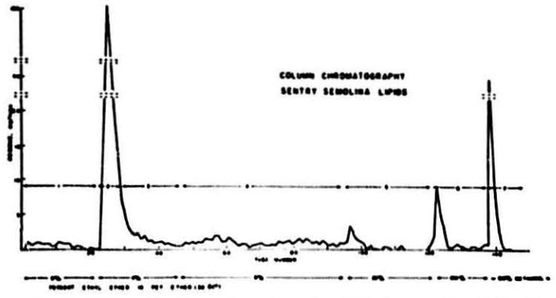

Fig. 2. Silicic acid column chromatography of Sentry semolina lipids. The amount of lipid residue in each tube of the fraction collector was plotted against the tube number.

Infrared Analysis

Brogioni and Franconi (4, 5) suggested the use of infrared analysis (IR) for the detection of farina in semolina and pasta products. Modifications of this test have been reported by Brogioni (6), Guiducci and Morgantini (7), and Jaforte and Cavallaro (8). An acetone extra of the milled or pasta product is analyzed for IR absorption. The ratio of the area of the curve measured at 8:58 microns to the area at 9:10-9.30 microns is reported as indicative of the amount of farina present in semolina.

$$\frac{\text{area at 8:58 microns}}{\text{area at 9.10-9.30 microns}} = \text{Farina Content}$$

We have collected infrared data on lipid samples extracted from durum, hard red spring wheat, and macaroni. Three different methods of extraction were employed to obtain the lipids, namely; 48-hour Soxhlet extraction with petroleum ether (b.p. 30-60° C.), 15-minute shaking in petroleum ether (b.p. 30-60° C.), and overnight extraction with anhydrous acetone, in the dark (4).

Figure 3 illustrates four IR spectra obtained from Lakota whole wheat and semolina lipids, and Selkirk whole wheat and farina lipids. See page 16.

(Continued on page 16)

[1] Presented at the 4th International Cereal and Bread Congress, Vienna, Austria, May 22-27, 1966.

[2] Professor and Chairman, Department of Cereal Technology, North Dakota State University, Fargo, North Dakota.

[3] Research Cereal Technologist, Crops Research Division, Agricultural Research Service, U.S. Department of Agriculture, Cereal Technology Department, North Dakota State University, Fargo, North Dakota.

[4] Mention of specific trade names or identification and does not imply any instruments are made for the purpose of endorsement of the United States Government.

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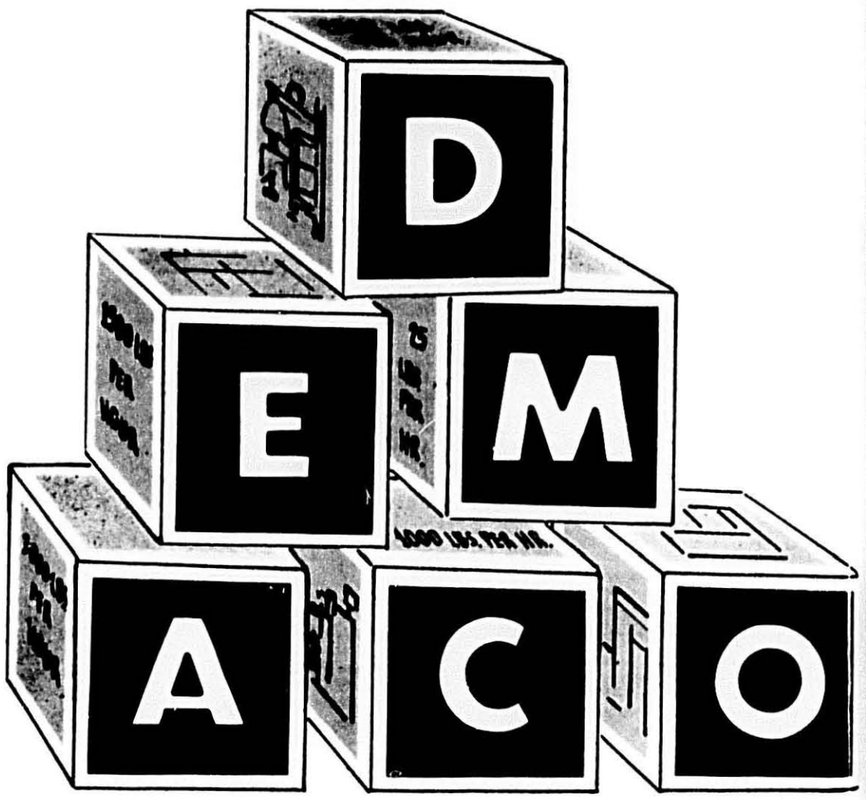

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Lipids of Durum Wheat —

(Continued from page 13)

Quantitative comparisons of absorption maxima were obtained with petroleum ether rather than with acetone. When a 48-hour Soxhlet extraction was employed, and when the absorption maxima were obtained at 3.05 microns for pure Lakota and Selkirk lipids (and a 1:1 mixture thereof) the results were as shown in Figure 4. The depth of each absorption maximum was measured as shown in the figure after adjustment of each spectrum to a common height at 3.3 microns. When these values were plotted against percent farina in semolina, a straight-line relationship resulted.

In a similar study (Figure 5) the areas above the curves between 9.0 and 10.0 microns were measured with a planimeter. A graph of the area, versus percent farina in semolina, is shown here also. Again a straight line resulted, although the differences in area were quite small. No differences in the positions of the absorption maxima of semolina and farina lipids were noted.

Two other absorption maxima, occurring at 6.05 and 6.5 microns, showed quantitative differences. When these maxima were plotted against percent farina in semolina, a relationship similar to those reported at 3.05 and 9-0 microns existed, but again, the differences were quite small.

Similar studies were performed on lipids extracted from Lakota semolina and Selkirk farina by shaking 15 minutes in petroleum ether (b.p. 30-60° C.). Similar trends were noted in all cases; however, the differences were not so great as with the Soxhlet extraction.

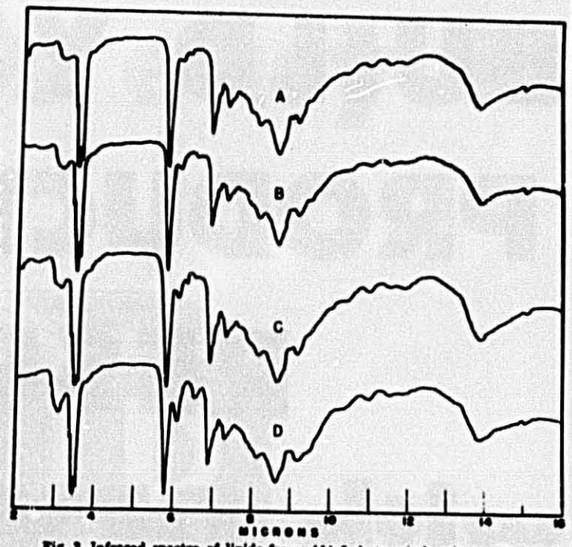

Fig. 3. Infrared spectra of lipids from: (A) Lakota whole wheat, (B) Lakota semolina, (C) Selkirk whole wheat, and (D) Selkirk farina. The lipids were extracted by refluxing 48 hrs. with petroleum ether (b.p. 30-60°C.) in a Soxhlet extractor.

When acetone was used to extract the lipids from Lakota and Selkirk, quantitative IR results were similar to those obtained with petroleum ether. However at 6.05 and 6.5 microns insufficient absorption occurred to permit quantitative measurements.

Although some quantitative differences were noted in the IR spectra (particularly at 3.05, 6.05, 6.5 microns and between9-10 microns), the differences observed seemed small, even when the spectrum of pure semolina lipids was compared to that of pure farina lipids. If the IR technique alone were employed, considerable care would be required in interpretation of the data.

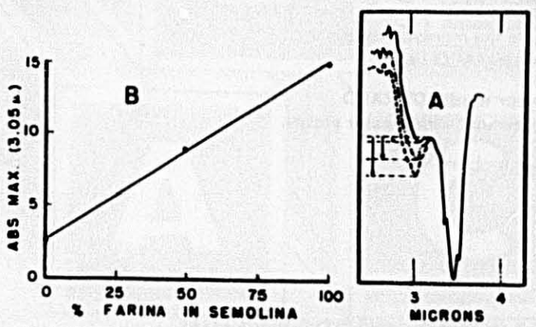

Fig. 4. (A) Infrared analysis (3.05 microns) of lipids obtained by a 48 hr. Soxhlet extraction using petroleum ether (b.p. 30-60° C.). Legend: (——) Lakota semolina lipids (- - - -) Selkirk farina lipids, and (— - — -) 1:1 mixture of farina and semolina lipids. (B) A graph of absorption maxima versus percent farina in semolina.

Acetone Precipitation

Sitosterol palmitate was isolated from common wheat by Dangoumau (9) and Spielman (10), and the greater amount that appears in common wheat as compared to durum wheat was shown by Walde and Mangels (11). This difference is the basis of the Matveef test (12), which has been used in Europe—particularly in France—for the detection of farina in semolina. Sitoserol palmitate is precipitated from the acetone extract at cold temperatures, and the amount is measured spectrophotometrically. A review of modification of the Matveef test has been reported by Guilbot (13).

Fabriani and Frantoni (14), and Frantoni (15), measured the sitosterol palmi-

(Continued on page 18)

Lipids of Durum Wheat —

(Continued from page 16)

tate content of several European varieties of durum and soft wheats, and have reported that several soft wheat varieties contained less sitosterol palmitate than did some of the durum varieties.

Thin-Layer Chromatography and Densitometry

Gilles and Young (16) separated the sitosterol esters from wheat lipids, using silicic acid thin-layer chromatography, and they reported the presence of sitosterol palmitate, oleate, linoleate and linolenate. They also reported considerable difference in the amount of saturated sterol esters present in Selkirk, a hard red spring wheat, as compared to the 4 durum varieties, Mindum, Sentry, Lakota, and Wells. Because this test was quick, relatively simple, and reproducible, and because it measured a chemical substance substantially absent in durum, the authors suggested that thin-layer chromatography, combined with densitometry, might be a useful tool in the measurement of the saturated sterol esters, for determining the presence of farina in semolina.

The procedure is reported briefly as follows. A 10 g. sample of semolina or farina is extracted with petroleum ether by continuous shaking for 15 minutes. The solvent containing the lipid is then filtered, and the extracted semolina is washed with petroleum ether. Then the combined extracts are evaporated to 2 ml., and a small portion is spotted on a silicic acid thin-layer plate. The plate is developed in carbon tetrachloride, visualized by spraying with sulfuric acid and heating; and the resulting saturated sterol ester spots are measured by densitometry. A linear relationship exists between percent of farina in semolina, and density of the resulting spots on the thin-layer plate.

By this procedure, tests carried out on macaroni made from Lakota semolina and Selkirk farina have given similar results. Figure 6 shows a photograph of a chromatoplate spotted with various mixtures of semolina and farina. The saturated sterol ester spots (which contain principally sitosterol palmitate) exhibit an increase in intensity as the amount of farina in semolina is increased.

Figure 7 plots the area of the triangles obtained in the density measurements of the saturated sterol esters versus percent farina in semolina used in preparing the macaroni. A straight-line relationship is revealed.

Rather extreme differences in sitosterol palmitate, as analyzed by the Matveef method, were reported among the different varieties of European soft wheats (14, 15). Therefore we decided to analyze a number of wheat varieties from the United States, to determine whether a similar situation exists. Hard red winter wheats (191 samples), grown in 1965 in Oklahoma and Nebraska, were analyzed for saturated sterol ester

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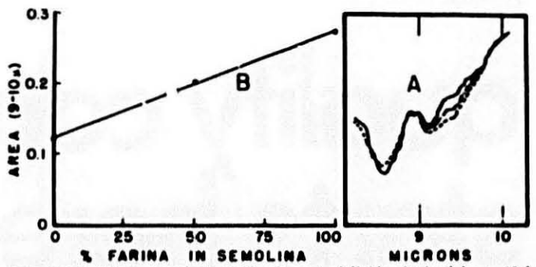

Fig. 5. (A) Infrared analysis (9-10 microns) of lipids obtained by a 48 hr. Soxhlet extraction using petroleum ether (b.p. 30-60° C.) Legend: (——) Lakota semolina lipids, (- - - -) Selkirk farina lipids, and (— - — -) 1:1 mixture of farina and semolina lipids. (B) A graph of the area between 9 and 10 microns versus percent farina in semolina.

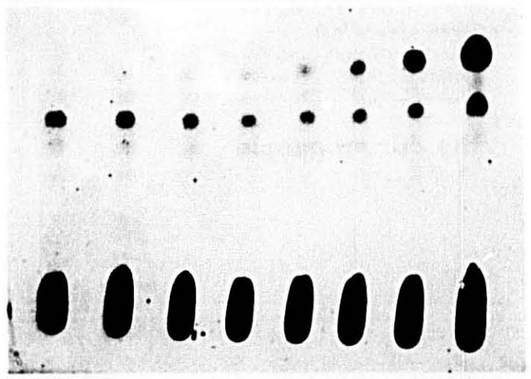

Fig. 6. A thin-layer chromatoplate of sterol esters obtained from lipids extracted from macaroni prepared from different blends of farina and semolina. From left to right, expressed as percent farina in semolina: 0%, 2%, 5%, 10%, 15%, 25%, 50%, and 100% farina.

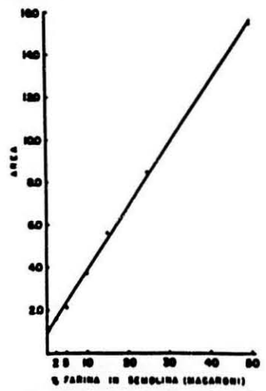

Fig. 7. A plot of the area and density of the sitosterol palmitate chromatoplate spots (upper spots, Fig. 6) versus the composition of the macaroni prepared from different blends of farina and semolina. Analysis was made on a Photovolt densitometer.

Lipids of Durum Wheat —
(Continued from page 18)

content by thin-layer chromatography and densitometry (16). On each chromatoplate known quantities of sitosterol palmitate were used as a refernce standard.

The results were grouped according to State, location within the State, and variety. Table III shows a typical comparison of the saturated sterol ester contents of these wheats. Of the 15 varieties grown in replicate at 7 stations in Oklahoma (not exception in Table III), the range in average value was 40 to 52 mg%; the average for 126 samples was 47 mg%. Of the 8 varieties grown in replicate at 9 stations in Nebraska (note exceptions in Table III), the range in average value was 48 to 59 mg%; the average for 65 samples was 54 mg%. From these data (Table III) it is apparent that the saturated sterol ester content is influenced by variety and location. It is particularly important to observe that, of the 191 samples tested, none was devoid of saturated sterol ester content, and that most of the samples contained more than 30 mg% saturated sterol ester—an amount readily detectable by thin-layer chromatography.

Six varieties of durum (Wells, Lakota, Stewart 63, Mindum, Ramsey, and Leeds), grown in North Dakota in 1965, and several samples of durum grown in Mexico, were analyzed for saturated sterol ester content. None produced spots intense enough for analysis on thin-layer plates by densitometry (the lower level of detection is about 0.5 micrograms). It is significant that the varieties, Wells and Lakota, comprise about 90% of the durum in North Dakota in 1965-1966.

Through the cooperation of Professor Fabriani, we were able to obtain 10 samples of Italian soft wheats. These were Aquilla, Leone, Produttore, Campodoro, Leonardo, Generoso 7, Impeto, Funone, Damiano, and San Pastore. When analyzed in Europe by the Matveef method, Aquilla, Leone and Produttore showed normal amounts of sitosterol palmitate, while the other 7 did not. Analyses performed on these 10 varieties by the thin-layer method were in general agreement. The results are shown in Table IV.

Effect of Additives and Abnormal Conditions

We performed several other tests to determine the effect of additives and abnormal conditions on the amount of saturated sterol esters present in wheat lipids. Since the addition of monoglycerides to semolina is permissible in the United States, we extracted macaroni containing commercial monoglycerides with petroleum ether; and the sterol esters were separated by thin-layer chromatography. Because of the greater polarity of the monoglycerides, no interference was noted with the sterol esters; a normal test pattern resulted.

A sample of North Dakota durum which contained a considerable amount of blackpoint was sorted by hand, to separate the apparently healthy from the diseased kernels. Each sample was analyzed for saturated sterol ester content. No difference was noted.

A sample of North Dakota hard red spring wheat containing a high percentage of yellow berry was sorted by hand, and each sample was analyzed for saturated sterol ester content. There was slightly more sterol ester (12 mg%) in the yellow berry portion. However, considering that this portion contained 100% yellow berry, the difference probably would prove insignificant in commercial samples.

Samples of normal and sprouted durum were analyzed by thin-layer chromatography. Neither showed a measurable amount of saturated sterol esters.

Conclusions:

When the lipids of **T. durum** are compared with the lipids of **T. aestivum**, biochemical differences may be noted, particularly in fatty acid content, sterol ester content, and infrared spectra. Variety has been shown to cause variation in chemical composition of wheats within each class. This is evident in fatty acid analyses performed on both European and United States wheats. Quantitative differences in the IR spectra have been reported also.

Durum wheats grown in the United States are substantially free from saturated sterol esters. Of 191 hard red winter wheat samples tested, approximately 30 mg% represented the lower limit of saturated sterol esters; none of these wheats were devoid of saturated sterol esters. Differences in variety, location or environment were shown to influence these values. Recent cooperative work, involving a comparison of the Matveef and thin-layer densitometric procedures, suggests that certain European wheats may not follow this pattern. The problem of accurately measuring the amount of farina in semolina obviously is complex.

Note: Subsequent to the preparation of this paper for oral presentation at Vienna, May 1968, three papers of interest on this subject have been published (17, 18, 19).

Acknowledgements:

We wish to thank Dr. A. M. Schlehuber for the Oklahoma wheat samples, Dr. V. A. Johnson for the Nebraska wheat samples, and Mrs. Dianne Thompson and Mr. Charles Berry for technical assistance.

(Continued on page 22)

TABLE IV
Saturated Sterol Ester Content o Italian Wheat Varieties

Variety	Sat. Sterol Ester (mg%)
Aquilla	57.6
Leone	56.1
Produttore	53.2
Campodoro	8.4
Leonardo	7.9
Generoso 7	7.6
Impeto	7.3
Funone	7.0
Damiano	6.0
San Pastore	5.1

TABLE III
Saturated Sterol Ester Content of Several Hard Red Winter Wheat Varieties

Oklahoma Variety	Average of 7 Stations mg%	Nebraska Variety	Average of 9 Stations mg%
Wichita	52	Cheyenne[2]	59
Triumph x CI 12406[1]	50	Turkey	57
Concho	49	Ottawa	56
Kaw	49	Bison[2]	54
Kaw 61	48	Gage	54
Quivira Cross	48	Lancer	54
Scout	48	Lancer	54
Triumph	48	Omaha	53
Triumph 64	48	Scout	48
Kaw	47		
Caddo	45		
Fg [illegible] Composite	44		
Gage	44		
Improved Triumph	42		
Triumph x T-Ac	40		

[1] 4 samples analyzed from each station.
[2] From 5 stations.
[3] From 6 stations.

Lipids of Durum Wheat —

(Continued from page 20)

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Before the Flood

"Flooding is the only word for the 1969 spring outlook," asserts Joseph H. Strub, Jr., a veteran Minneapolis meteorologist.

In southwest Minnesota and northwest Iowa, the snowfall this winter was three times the normal amount, with more than 75 inches in some sections. Up to 90 inches fell in South Dakota. North Dakota had 72 inches. There were still heavy blankets of snow through much of the Dakotas on the first of April, and up to two feet of snow in parts of Minnesota. Melting was well under way. It will equal 8 to 10 inches of rainfall, without allowing for actual spring rain. Record floods are predicted.

Planting Intentions

Farmers in North Dakota intend to plant five percent fewer acres than last year to the principal crops, with less acreage devoted to corn, durum wheat, hard red spring wheat, barley and soybeans. More acreage is intended for oats, flax and sugar beets in 1969 than a year earlier. Potatoes, sorghum, dry beans and dry pea acreages are expected to be at the same level as a year ago. The largest percentage decreases in planted acreage are in hard red spring wheat and barley, both down fifteen percent. Acreage planted to durum is expected to be five percent below a year earlier, soybeans down seven percent and corn down eleven percent.

Plantings of all spring wheat are expected to total 7,108,000 acres, down eleven percent from the 1968 acreage of 8,008,000 acres. Prospective plantings of durum were placed at 2,861,000 acres, down five percent from the 3,012,000 acres planted last year but twenty-two percent above the 2,353,000 acres planted in 1967.

In Canada

The spring wheat area in Canada plans to cut acreage 12 percent, putting in 25,410,000 acres compared with last year's 28,860,000. Included is 2,777,000 acres of durum, up 19 percent from last year's plantings of 2,339,000 and compared with 1,302,000 for 1967. The durum area in the prairies in 1966 was 1,064,000 acres.

Total Marketing, International Milling Theme

Keeping ahead of the rapidly changing macaroni industry is one of the biggest challenges facing suppliers of semolina and durum flour. And International Milling in Minneapolis is no exception.

As one of nation's leading durum wheat millers, IM has taken a strong marketing stance so that the company can better serve its customers across the country.

"The macaroni business has grown significantly and has become much more sophisticated in recent years, and it is up to all of us in the industry to meet the varying demands of the consumer," says Sal F. Maritato, durum products sales manager for International.

Maritato continues, "Marketing is a key element in our approach to this problem, but marketing is much broader than just sales. It includes production, distribution, product and statistical research, growing the wheat, data processing and promotion as well as sales."

Theme

Total Marketing is the theme being used by International, and emphasis is placed on all phases of customer service.

The increased emphasis on a more market-conscious organization began about two years ago with specific marketing responsibilities being assigned at vice presidential level in the company's various divisions.

This direction became even more clear last fall when International named William G. Phillips as its new president and chief executive officer. Young (48) and strongly market-oriented, Phillips was formerly president of the Glidden-Durkee Division of the SCM Corporation in Cleveland.

Then, late last February, International extensively reorganized its corporate structure by realigning three divisions and creating a new consumer products division.

Explaining the changes, Phillips said, "We want to stimulate expansion in each of our marketing areas."

"The reorganization is also," he went on, "designed to develop a strong, young marketing-oriented management team with division general managers specifically responsible for production and marketing functions."

Although International realizes there is no substitute for face-to-face communication, it also believes its salesmen must assimilate as much marketing information as possible to be more effective with the customer.

Market Planning

As a result, IM strongly emphasizes market planning, seeking to project uses of semolina and durum wheat five, ten and more years into the future.

By using its data processing equipment, International durum products personnel are constantly taking market surveys by gathering current information from customers, the National Macaroni Manufacturers Association and other sources. With this material, the company can quickly plot trends that affect consumer buying, said Maritato.

Another important marketing tool at IM is in the technical area at its research and quality control laboratories in New Hope, Minn., where the company performs wheat and finished product testing. To carry its testing to the finished product, International maintains a macaroni press at the laboratories to assure true production conditions.

"The demands for durum wheat products are becoming more diversified than in the past," says Maritato, "so we must be prepared to adapt to new conditions as quickly as possible."

Marketing Team

In addition to Maritato, IM's durum marketing force includes Richard L. Vessels, assistant durum products sales manager; and senior account executives William A. Brezden, Minneapolis; George E. Hackbush, Chicago; and Andrew M. Rondello, New York. Robert J. Bruning, eastern region quality control manager, is the durum expert at the New Hope laboratories. The administrative duties in IM's durum department are handled by Alfred A. Bedor.

International produces semolina and durum flour at mills in St. Paul, Minn. and Baldwinsville, N.Y.

Malcolm B. McDonald

Malcolm McDonald Retires

Malcolm B. McDonald, senior vice president for International Milling in charge of corporate development, has announced his retirement effective May 14.

He will remain as a consultant to the company and will be available for special assignments, according to William G. Phillips, president of IM. A successor has not been named.

McDonald joined International in 1951 as vice president for finance after serving as executive vice president and a director of First National Bank of Minneapolis. He was elected to IM's board of directors in 1952 and in 1954 was named vice president and treasurer.

When IM formed its U.S. flour milling division in 1960, McDonald was named vice president for the new operation. He was promoted to senior vice president for corporate development in 1965, responsible for the company's diversification and long-range planning program.

Active Citizen

Active in civic affairs, McDonald is currently president of the Minneapolis Metropolitan YMCA. In the past he has served as general chairman of the Hennepin County United Fund, general chairman of the Hennepin County Red Cross Fund, state chairman of the United Services Organization (USO), and president of the Minneapolis Club. He also has served as a trustee of Carleton College, a trustee of Blake School and a trustee of the Minneapolis Foundation.

McDonald is also a past member of the board of directors of Millers' National Foundation.

A native of Walnut Grove, Minn., he is a 1926 graduate of Carleton College. He earned his LL.B. degree from Harvard University in 1929.

He was associated with the Minneapolis law firm of Dorsey, Colman, Barker, Scott and Barber from 1929 to 1940 when he became general counsel for First National Bank.

ADM Moving Headquarters

Archer Daniels Midland Company is preparing to transfer its general corporate offices from Minneapolis to Decatur, Illinois. The flour division offices will be transferred to Kansas City, Missouri. Both moves are set to be accomplished during the summer and fall of this year.

All Minneapolis and St. Paul facilities will continue in operation, including the two flour mills and several grain elevators. Also remaining in Minneapolis will be ADM's North West Grain operation and flax fiber division. About 150 employees will be affected by the moves.

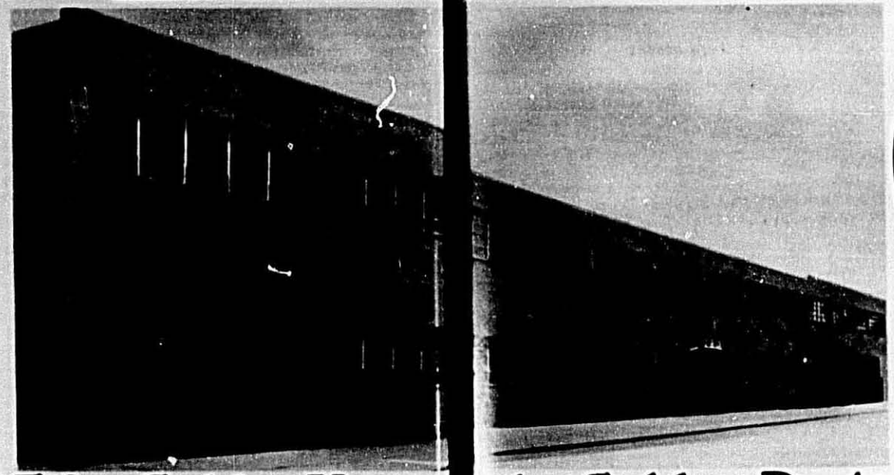
ADM operates the former Atkinson mill in Minneapolis with 9,800 cwt. daily capacity, and the Nokomis mill with a capacity of 8,500 cwt. of durum products. The company also operates a mill in Kansas City with a daily capacity of 16,500 cwt. and a mill at Abilene, Kansas with a capacity of 6,500 cwt.

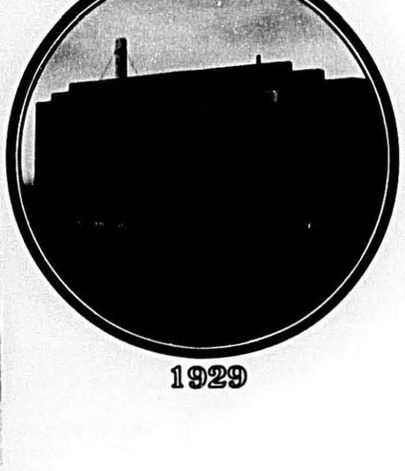
Lowell W. Andreas, president of the firm, indicated that the soybean and

(Continued on page 26)

50th Anniversary

1919





1929

Fifty Golden Years

Now that we are reminiscing a little—some of t
years were not all golden. To be truthful some
downright threadbare—as most of us well remem
However there were enough of those Golden Ye
to encourage us all to hold on—and the import
thing is, we all tried harder to improve a little.
must have been fairly successful too, because t

the Golden Pasta

anks to ou faithful customers of long standing
as all our new ones, we at Clermont are still
g out those Golden Pasta machines which pro-
complete line of long goods—short goods and
products—also a variety of conveyers to move
finished product to any part of any floor in your
t.

ENGINEERED PLANT LAYOUTS *for the smallest or the largest manufacturer—* **ENGINEERED GUIDANCE** *for*
rnization or new building— **ENGINEERING & FABRICATION** *of specialized equipment for special purposes.*

CLERMONT Machine Co., Inc.
Now a Subsid

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Carlisle Corp.

A D M Moving Headquarters —

(Continued from page 23)

food products divisions represent the firm's largest area of investment, and since the center of these activities is Decatur, it is deemed essential to locate corporate activity there. The result is expected to be greater efficiency and lower cost of management operations.

Started in Minneapolis

ADM started life in Minneapolis as the Daniels Linseed Company in 1902, the name being changed to Archer Daniels Linseed Company three years later. The firm took the present name in 1923, after incorporation. ADM entered the flour milling business in 1930 through the acquirement of Commander Larabee Corp., which became a wholly owned subsidiary known as Commander Larabee Milling Company. Commander was merged into the parent company in 1959, becoming part of ADM's agricultural group. Operations were extended when the firm acquired Atkinson Milling Company of Minneapolis in 1962 and, more recently, the Abilene, Kansas Flour Mills Company plant.

Jesness Discusses Economic Problems

O. B. Jesness, Chairman of the Board of Experience, Incorporated, reviewed some current economic problems at a meeting of the World Affairs Council in Minneapolis on April 3. Particular stress was laid on inflation and governmental fiscal and monetary policies to bring it under control. Fiscal policies include heavier taxation to increase revenues and reduced governmental expenditures. Budget deficits have no place in a period of inflation. Monetary policy seeks to lessen the pressure on markets by reducing the supply of credit and increasing its cost. Individuals and organizations can help check inflation by resisting the urge to demand higher returns and by supporting programs of restraint.

Balance of Payments

Another important problem is that of maintaining a dollar of stable value. Closely associated with this problem is our balance of international payments. The flow of dollars out of this country has exceeded the return flow over a period of years. Unless this is checked, confidence of other countries in our dollar will weaken, which could in time result in chaos in international exchanges. Bringing a halt to inflation is an important factor in maintaining stability. We also need to correct the situation by bringing our outflow of dollars into better balance with the return flow. Our military and other commitments abroad are part of this problem.

An excess of exports over imports is important for a country with an unfavorable balance of payments. The United States has been favored with an excess of exports over imports in recent years but this is declining. Inflation contributes to the decline by pricing some of our goods out of the export market and inviting imports. We need to keep our prices competitive and to resist pressures to restrain imports, which in turn would add to our problems of exports.

Farm Problems

Brief reference was made to the "farm problem." Dr. Jesness referred to the "paradox of burdensome surpluses of some farm products in some parts of the world while elsewhere there is hunger and starvation." He indicated that, while food aids provide temporary relief, the real solution lies in helping underdeveloped countries improve their agriculture and their systems of handling and distribution. Basically, continuing farm surpluses in the United States call for effective readjustment of productive resources used in surplus lines to restore a balance between production and available markets.

Durum Exports

Exports for the first three-quarters of the crop year stood at 49,392,466 bushels compared to 31,000,000 for all of 1967-68 and the previous record of 47,000,000 in 1966-67.

United Kingdom

United Kingdom macaroni manufacturers have consistently maintained a high quality standard in pasta products by insisting on the use of durum semolina only.

Their determination to uphold and even strengthen this position was underlined at a recent meeting of the Pasta Products Section of the Food Manufacturers Federation when agreement was reached on the establishment of standards of composition for long spaghetti and long macaroni offered for retail sale in blue paper, film and board retail packs.

The agreement sets a high quality standard and will help protect the consumer from some low quality imported products at present being offered for retail sale.

Cargill Assignments

Daniel Amstutz has been named senior merchant in charge of coarse grains by Cargill, Inc. Robert Nolan has been appointed to the wheat merchandising department specializing in U. S. and Canadian spring wheat and durum.

How-to-Eat Program

The Agriculture Department wants Congress to provide more money for a special program to help teach poor people how to use food obtained from the Government.

The program was started by the Johnson Administration, but its $10 million fund has been spent. USDA is seeking another $15 million.

It may request even more when revisions are suggested to Congress in the USDA budget.

Potato Stocks

Storage stocks of potatoes in fall producing areas totaled 80,000,000 cwts. on March 1. This was 7 percent less than a year ago, slightly above the 1967 figure. In eight eastern states stocks were 5 percent below last year's holdings. Maine had 22,100,000 cwts. compared with 22,500,000 last year. Upstate New York and Pennsylvania had less stocks but Long Island had more.

Minnesota-North Dakota totaled 11,200,000 compared with 10,500,000. Michigan was down 10 percent and Wisconsin 14 percent.

In the west, Idaho was down 17 percent. Colorado down 19 percent. Washington stocks were up 16 percent, Oregon 5 percent. Winter crop digging in the San Joaquin Valley has been slowed by wet fields. Spring planting in Kern County, California has been delayed.

Plenty of Rice

Rice production in 1968 reached a record 105,300,000 hundredweights, which is 18 percent above the previous record in 1967.

Lots of Beans

Production of dry beans has been estimated at 17,700,000 hundredweights, 14 percent above last year.

Goodman Wines

A. Goodman & Sons, Long Island City, New York, has introduced Kosher Blackberry and New York State Concord table wines in New York and New Jersey.

ADM Flour Mills

Government Buys Egg Mix

In March the Department of Agriculture announced plans to purchase a limited quantity of Scrambled Egg-Mix to replenish the supply of this high protein food for distribution to needy persons. Offerings were to be received as of March 24 and each Monday thereafter until needs were satisfied. Last year the Department purchased 16,700,000 pounds, which was estimated to be sufficient to last until this Spring.

Chicken Hatch Up—Egg Futures Down

Egg producers may have some tightrope walking ahead of them and chains may have less incentive to scramble into their own egg operations if poultry and egg figures for January and February prove an accurate forecast of 1969 conditions.

The Consumer Price Index showed prices down 3 per cent in February, owing to a sudden rise in supplies. The chick hatch in January and February was up 10 per cent compared with the same period last year.

The poultry survey committee of United Egg Producers, Atlanta, estimates the chick hatch for the first six months of 1969 will be up 10 to 12 per cent.

Even considering the possibility of the increased hatch being offset somewhat by recycling of hens, United Egg Producers sees a price decline of about 6-7 per cent per dozen eggs next fall and winter. Facing these troublesome supply-demand factors, the group is advising its members to have "a market nailed down in advance for every egg you produce."

A ready supply of eggs of uniform size and quality should contribute to a tailing off of chains seeking their own egg-producing facilities.

Chains Produce Eggs

Charles Meler, vice-president, Poultry & Egg National Board, Chicago, believes the search for profit and a uniform product led chains into the egg business.

According to Mr. Meler, the "rush" of chains into the poultry and egg business about five years ago was met with expansion by outside producers. This enabled them to produce a more uniform product and, in turn, may have led to a slowing down of the drift of chains into egg production.

Under present circumstances, Mr. Meler thinks chain expansion into poultry and eggs will continue, "but it won't be a stampede."

Government Egg Reports

U. S. Cold Storage Report		March 1, 1969	March 1, 1968
Shell Eggs	Cases	68,000	77,000
Frozen whites	Pounds	6,046,000	8,219,000
Frozen yolks	Pounds	15,298,000	20,204,000
Frozen whole eggs	Pounds	32,961,000	49,978,000
Frozen unclassified	Pounds	1,936,000	1,539,000
Frozen Eggs—Total	Pounds	56,241,000	79,940,000
Crop Report (48 States)		**March 1, 1969**	**March 1, 1968**
Shell eggs produced		5,261,000,000	5,620,000,000
Average number of layers		313,717,000	322,108,000
Average rate of lay		16.70	17.45
Layer Report:		**March 1, 1969**	**March 1, 1968**
Hens and Pullets of Laying Age		312,070,000	320,743,000
Eggs Laid per 100 Layers		61.3	61.0

He says chains which have their own operations, such as Red Owl Stores, Minneapolis, Kroger Co., Cincinnati, and Jewel Co., Chicago, have done well with them.

Vigorous Promotion

All do vigorous promotion jobs, he said, commending Kroger's television campaign for "Crackling Fresh Eggs."

"Most of the chains buy their basic promotional materials from us," he continued. "We supply carton inserts, case strips, price strips and recipe folders, for instance."

"What's more, the Poultry & Egg National Board has been sponsoring city and area merchandising programs to increase egg sales. In one instance, egg sales jumped 18 per cent in six weeks.

"We did it by sponsoring a dairy manager's contest among the city's stores. All promotional angles were increased during the six-week period."

Range of Operations

Jewel Food Stores in Chicago run 300,000 layers, producing twenty percent of its requirements. They plan to double operations soon because they are having difficulty getting quality eggs on the outside.

Red Owl Stores operates Farmdale Farm at Big Lake, Minnesota. They run twenty units of 10,000 each turning out an annual volume of 3,500,000 dozen eggs. They have no expansion plans.

Schnuck Markets of St. Louis operates Four Winds Farm to supply private label to its Schnuck and Food Town Stores. Only occasionally are eggs bought from outside sources.

Godfrey Company of Waukesha, Wisconsin supplies its 74 Sentry Food Stores with Cold Spring eggs from its farm started in full production this year. They produce about 120,000 eggs daily.

Wegman Food Markets of Rochester, N.Y. is developing an automated egg facility at Wolcutt, N.Y. to supply its 27 stores. The farm is expected to produce 36,000 eggs daily.

None of the major chains in the San Francisco Bay area have egg operations although Safeway uses contract growers. They do not have a hand in the production plant.

Pick-N-Pay Produces Eggs

Pick-N-Pay Supermarket Division of Cook Coffee in Cleveland runs a henhouse of 100,000 birds.

Although other chains own egg farms, and candle and grading operations, Pick-N-Pay is the only company in the Cleveland area to attempt it.

The chain has been supplying part of its own egg needs since 1963. Its 100,000 birds are housed on a farm in Parkman, Ohio. They produce about 20 per cent of the chain's needs.

Learns Problems

Although the Parkman farm does not produce all the eggs used in the stores, the egg plant has given Cook management guidelines to use with outside egg suppliers.

"One of the side effects of this arrangement is that we have learned our producers' problems and are able to help him," according to Jim Newell, who is in charge of the egg operation.

The eggs are produced in Parkman, then trucked to a candle and grading processing plant nearby. Final step is transporting by trailer to the dairy department in Cleveland. There, the eggs are sorted into six sizes—from Kiddie Pak to Jumbo—and broken down to store orders. Eggs are delivered to the store four or five times per week.

"Better quality control and limited dependence on outside suppliers are two of the most significant advantages of a chain operating its own egg farm.

"The time lost between hen and consumer is much shorter than in working through a processor.

(Continued on page 30)

Pick-N-Pay Produces Eggs —

(Continued from page 28)

"Previously a processor handling the Pick-N-Pay stores would only deliver eggs to the stores twice a week. With our own operation, the eggs are delivered more frequently and they are fresher," Mr. Newell said.

The farmers who supply the bulk of Pick-N-Pay's needs, are close to the Parkman farm, in nearby Smithville, Orville, Wooster and Canton, O., it was noted.

Collectively these producers have approximately 500,000 birds. Most have flocks of from 20,000 to 60,000. "These farmers are full-time egg producers and oriented to the market completely . . . no sideline operations," Mr. Newell stressed.

This allows totally controlled feeding, housing, medication and general health of the bird, he continued.

13-Month Cycle

Birds are rotated on a 13-month cycle, he said. After this time their production starts to fall off and quality of the eggs drops, he noted. "A bird is put into the house at six months. When they are 18 months old or thereabouts, they become chicken soup or chicken pot pie," he quipped.

Total weekly production for store needs is about 200,000 dozen eggs. This varies, depending on sales and promotions of eggs, the current market price and whether or not it is a consumer "paycheck week," he added.

"The problems with having a complete egg farm and plant are the usual problems of farming. We are directly at the mercy of the market. Supply and demand is the big hangup. There are no Government supports for egg-raising.

"The only other current problem is that the Parkman Farm is not really as centrally located as it was once thought to be," Mr. Newell added.

Cook has no plans for increasing its egg operation, it was said.

Egg Industry Adopts 3-A Sanitary Standards

The egg industry's first four sanitary standards were completed and authorized for signing and publication at a charter meeting of a new 3-A Sanitary Standards group held at Palm Springs, California, March 13. The 3-A Sanitary Standards program originated in 1944 to provide criteria for cleanability and product protection in food processing equipment.

The four authorized standards for the egg industry will be designated "E-3-A Sanitary Standards," and will be published officially in the Journal of Milk and Food Technology later in the year.

As anticipated, sanitation criteria published in a number of 3-A Sanitary Standards for dairy processing equipment were found to be readily adaptable to egg processing, and to the first four authorized in Palm Springs.

Committees Formation

Spearheaded by the Institute of American Poultry Industries, the egg industries first meeting was planned and the agenda developed by a 3-A Steering Committee composed or representatives from IAPI, Dairy & Food Industries Supply Association, International Association of Milk, Food, and Environmental Sanitarians, USDA, and USPHS. They met January 14 at the 3-A offices in Washington, D.C. and established procedures for re-structuring the 3-A Sanitary Standards Committees to provide appropriate user-group and regulatory representation within the program's established operating plan.

Participating in the Palm Springs meetings were the 3-A Sanitary Standards Committee of IAPI; Technical Committee of DFISA; Poultry Division, Consumer & Marketing Service, USDA; Committee on Sanitary Procedures-IAMFES; and Environmental Sanitation Program representatives from USPHS. Representatives of the various segments included Dr. Richard H. Forsythe, Henningsen Foods, Inc., Springfield, Mo. for IAPI; Harold Thompson and William Bower, Environmental Sanitation, USPHS, Cincinnati; Dick B. Whitehead, Diversey Corporation, Chicago; G. A. Houran, The DeLaval Separator Co., Poughkeepsie; Walter Z. Meyer, Paul Mueller Company, Springfield, Mo.; R. Voohees, alternate for Dr. William Hauver, Jr., Poultry Division, Consumer & Marketing Service, USDA; Dan C. Roahen, CP Division, St. Regis, Fort Atkinson, Wis.; Robert Holtgrieve, Waukesha Foundry Company, Waukesha, Wis.; Walter F. Laun, Cherry-Burrell Corp., Cedar Rapids; and Dr. Hans Lineweaver, chief, Poultry Laboratory, Agricultural Research Service, USDA, Albany, Calif.

Additional tentative E-3-A Sanitary Standards were considered for rubber and rubber-like materials. Accepted practices for air under pressure, and for permanently installed sanitary pipelines were also studied. These preliminary drafts were reviewed and passed on to the next action body for completion at the Fall 3-A Sanitary Standards for Food Processing Equipment meeting.

Program Development

Essentially a three-element program the 3-A Sanitary Standards Committees for food processing equipment includes in the case of dairy foods: **Users**—represented by the Dairy Industry Committee made up of representatives from seven dairy foods national trade associations; **Fabricators** — represented by DFISA, whose technical director, Don Williams, is secretary of the Committees; **Sanitarian-Regulatory**—with representatives from USPHS and IAMFES.

Twenty-six 3-A Sanitary Standards have been published for dairy processing equipment. These voluntary standards have been regarded as the greatest single fact contributing to the uniformity of equipment requirements, and reciprocity of acceptance among state and local regulatory jurisdictions.

Standards are published officially in the Journal of Milk and Food Technology, as will be the E-3-A Sanitary Standards. Complete sets of published standards are available at nominal cost from the Journal at Box 437, Shelbyville, Indiana.

Coupon Redemption Rate Rises

Now it even costs more to give money away.

Procter & Gamble and Lever Brothers recently raised the coupon redemption rate from the 2¢ that had been paid for over twenty years to 3¢.

Many makers of household products distribute cents-off coupons each year through newspapers, magazines and those mailings addressed to "occupant." One estimate is that over a half billion a year are redeemed. The coupons are designed to attract consumers, or give a fillip to a continuing marketing campaign.

Both P & G and Lever said they were making the increase in recognition of the higher costs incurred by stores in handling the cents-off coupons. These higher costs were detailed in a study conducted by Arthur Anderson Company, a marketing research group, for a number of food-industry organizations.

College Inn Offer

R. J. Reynolds Foods is offering a 25¢ refund to purchasers of its College Inn egg noodles and chicken or egg noodles and beef.

The offer is being made via point-of-purchase material with tear-off coupon pads attached. Reynolds is providing 14 x 20 inch posters and 3½ x 9 inch shelf talkers.

San Diego has a fine natural harbor.

Del Coronado stands by Glorietta Bay.

SAN DIEGO'S BIRTHDAY PARTY

WHETHER or not you know it, you're coming to a birthday party this year—a gigantic one. San Diego, the site of the 65th Annual Meeting of the National Macaroni Manufacturers Association, July 13-17, is 200 years old.

A group of prominent civic and business leaders have formed a 200th Anniversary Celebration Committee, and events have been planned to intrigue visitors and fascinate San Diegan citizens themselves.

Spanish Camp

During the period of July 1 to 15 a Spanish Camp will be established in Old Town. July 1, Junipero and Portola arrival; July 2, First Mass at Immaculate Conception Church; July 3, costume contest in plaza; July 4, Yankee 4th of July celebration; July 5-6, Art Fiesta; July 7-12, Vignettes of Old San Diego, narrations of history with a street scene; July 11-12, Mexican Band Concert in plaza; July 13, All Faith's Program in Plaza; July 14-15, Crafts and Fiesta all over Old Town; all events leading up to the Trek to the Cross, July 16. This symbolic annual trek in honor of Father Junipero Serra, the founder of California's first mission, marks San Diego's 200th birthday. Starting from the Old Adobe Chapel in Old San Diego, 10:30 a.m., the unique and colorful trek re-enacts Father Serra's journey up Presidio Hill and the founding of the first mission in 1769. Ceremonies at Serra Cross on Presidio Hill are followed by open-air bus tours of the historical Old San Diego area and a colorful program in the Old San Diego Plaza.

Presidio Hill

Presidio Hill, around whose foot Old Town grew, afforded an excellent outlook over the surrounding country, river and bay. It was a natural choice when a site was selected on which to build the fortified square or presidio which played a necessary role in all new Spanish settlements. The walls were first constructed of wood and later of brick and stone. Inside the walls were housed the soldiers of the garrison, the officers' quarters, the commander's quarters, abode supply houses and a chapel.

Although from a military standpoint the site was satisfactory, the Franciscans soon realized that they must move their mission some distance away from the influence of the soldiers to a location farther east (the present site of Mission San Diego de Alcala), where they would have easier access to water.

This explains why you will find only the Serra Museum and no visible remains of the old mission when you visit Presidio Hill. (The Museum is open daily from 9 to 5.) Even the presidio itself has been almost completely obliterated by the elements and the settlers who used its materials to build their own houses.

As the garrison grew and immigration increased, the settlement also grew and prospered. The influence of Spain and Mexico predominated and is still evident as you walk the streets of Old Town.

Stately California Tower, landmark in famed Balboa Park.

Yankee Traders

The period of the 1840's marked the advent of the Yankee traders and the inevitable move southward to New San Diego, nearer to the bay itself. By 1868 most of the commerce of the city was centered farther south than Old Town. Incredible as it may seem, it was this year that perhaps the most important decision in San Diego was made. Fourteen hundred acres of relatively barren land were set aside by the city for park purposes. Balboa Park, as it was called was dedicated by a young city with less than 500 citizens, a city surrounded by unsettled land and open space as far as the eye could see. Whether by pure luck or inspired foresight, the city fathers preserved for future generations an oasis that over the years has returned its investment one hundredfold.

Balboa Park

The first improvements were not made on the park until 1889. Then in 1909, San Diego, then a city of only 35,000, startled the nation by proposing that a world's fair be held here to commemorate the completion of the Panama Canal. The park received another tremendous developmental stimulus in 1935 when San Diego was chosen as the site for the California-Pacific International Exhibition.

Beginning on El Prado visitors can see the Museum of Man, the Aerospace Museum, Museum of Natural History, and Fine Arts Gallery. The Botanical Building is seen across the lily pond and has over 500 varieties of plant life on display. The zoo, unique in many respects, has over five thousand species, some of which are not found in any other zoo in the world.

The Harbor

Before the city was founded, the harbor was there. It is the heart of San Diego and it is here that the story of Old California begins. The harbor was first seen on September 28, 1452, by Juan Rodriguez Cabrillo, a Portuguese navigator in the service of Spain. He had set sail from Navidad, Mexico in order to explore the coast of New Spain and to discover the Strait of Anian, a legendary northern waterway from the Pacific to the Atlantic. He named his newly-found harbor the Port of San Miguel, stayed for only six days, and continued on up the coast to Point Reyes, where he was forced to turn back because of strong head-winds. Cabrillo died on the homeward leg of his voyage, never having found his elusive waterway, and was buried by his shipmates on one of the nearby Channel Islands.

Mission Bay

Mission Bay, once known as Bahia False, or "False Bay" (perhaps because it was mostly mudflats and reeds) has been dredged out. The sandbars have been turned into beaches. Then came picnic grounds, marinas, golf courses, hotels, restaurants and an oceanarium.

San Diego Bay to the south was similarly transformed. Dredges created Shelter Island, where there is everything from a public fishing pier to a Polynesian roundhouse restaurant.

Another is Harbor Island, used by the Navy and freighters, as well as many yachtsmen.

Coronado

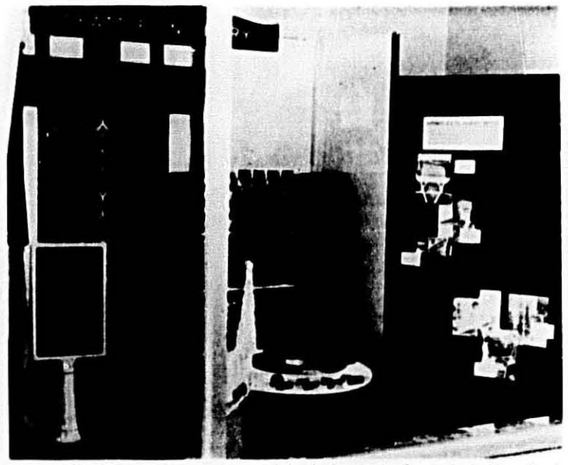
Coronado is situated across the bay from the modern city of San Diego. The picturesque Hotel del Coronado stands majestically on a twenty-acre site bordered on one side by the Pacific Ocean and on the other side by the waters of Glorietta Bay. This grand hotel built in 1887 remains an architectural wonder of its time and now. It is famous throughout the world as a resort and convention site. Coronado Golf Course is easily accessible from the hotel.

Old Mexico

Old Mexico is just freeway minutes south—with beautiful, modern Caliente Racecourse and Caliente Greyhound Club, jai-alai, bullfights on Sundays and the fascinating curio shops of colorful Tijuana.

Everything for the perfect holiday is here coupled with an interesting and profitable business meeting planned for macaroni and noodle manufacturers.

65th Annual Meeting NMMA
Hotel Del Coronado
July 13-17, 1969



The Seattle Industry Window is one of the displays in the City Light Building, headquarters of Seattle City Light, municipally owned electric utility.

Recently it featured the products and illustrations of processes at Major Italian Foods Company, a Seattle macaroni manufacturer. In the foreground is a macaroni Christmas tree, a die and a variety of specialty shapes.

The displays are designed to point out that Seattle industry means pay-rolls and prosperity to the area. The main signboard tells something of the history of the firm and included annual sales, number of employees and the annual payroll.

Minnesota Commissioner of Agriculture Robert W. Carlson (left) and Art Calvert, Miami representative of the Florida Department of Agriculture, at the Minnesota Food Expo-69 in Miami, Florida.

The Peavey Company was one of the 27 Minnesota participants in the Expo which came to Miami this year for the first time. Similar events were also held in Tampa and Jacksonville.

Miami broker George Martin (left) and Creamette representative John J. Knoedl at the Creamette exhibit. Creamette macaroni was one of the 42 food items served at the Miami banquet attended by nearly 200 representatives of the Miami food industry.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FINGER FOODS

THREE square meals a day may be on the way out, and the fork could become a museum piece.

The losers might include the livestock producers, while the gainers could be the innovators of new foods, the convenience foods, because snacking is becoming a way of life for the mod generation. People eat snacks at all times of the day and night, in a variety of places, spurning the sit-down meal at the dining room table.

Franklin W. Krum, Jr., vice president and marketing director of N. W. Ayer & Son, Inc., and formerly marketing director of Campbell Soup, calls this category finger foods because they encompass just about anything in the icebox or on the kitchen shelves which can be eaten without much preparation, without heavy involvement with pots and pans, dishes and eating utensils, and without the need to set the table and clean up afterwards.

Mr. Krum asked the poultry men attending a recent meeting of the Institute of American Poultry Industries in Kansas City if they were listening to the consumer for the changes that are taking place right now that will alter the competitive situation for foods.

Change is inevitable. Those food producers who listen will be the beneficiaries. But besides listening, they must interpret what the consumer is doing and saying.

Competition

Competition for the consumer dollar is an important aspect of the merchandising business, and Mr. Krum defined what he called various grades of competition.

Grade I is the generally recognized kind—nose-to-nose, such as "my macaroni is better than your macaroni." Grade II he called "course combining," more easily recognized as convenience foods produced by joining the products of one group of processors with another, such as chicken pot pie. Grade III competition is represented by direct substitution, soybean-based products for meat products as a good example. Grade IV is the competition presented by whole meal substituting, such as instant breakfasts. Grade V competition is a different breed of cat which Mr. Krum defines this way: "It's competition when consumers behave in new ways, and one of your products gets knocked off a traditional spot on the menu. These are basic consumer trends. Fortunately, these forces at work in the market also create new opportunities for you. And the good outweighs the negative."

Changing Eating Habits

The gradually changing eating habits of a nation of highly sophisticated people have occupied the attention of marketing research men for a long time. A log was kept of the eating experiences in an upper middle class home for a day. In the family were two adults and three teenagers. How many times did that family of five eat in one day? Would you believe 74? That's what Mr. Krum reported.

And that pattern is repeated over and over in other families, a pattern rapidly becoming the rule rather than the exception.

Definitely the trend is toward continuous eating and the diminishing importance of the big milestone meal. It means the continuous erosion of the kind of meals "we grew up on as kids, the great big dinners on Sundays, the heavyweight suppers that took two hours to fix, an hour to eat, and an hour to clean up."

Use Imagination

Then Mr. Krum asked: "Can you do something to position your products so that you've got the consumer tailwinds working for you?" General Mills is in the meat business with finger foods. It's relatively small now, but it's growing and it's profitable.

When you think finger foods, think competitively—and think imaginatively—and think complementarily.

The cereal-based snack product out of a package, dry and ready to eat, the pop-up toast-ems, the frozen waffles and other skillfully contrived snacks are cereal-based finger foods in the truest sense

A salted cracker is a snack, but it usually needs a complement. So a cracker with a hunk of cheese on top becomes a true finger food.

The competitive picture widens when the definition of a finger food takes on a larger scope. Finger food snacks can include a leg of leftover chicken, a candy bar — General Mills recently rounded out its snack selection by adding candy to its cereal-based snacks and meat snacks—even fresh fruit belongs to the list. They are all finger foods.

Besides the twin trends of continuous eating and finger foods, Mr. Krum identified three other important trends in marketing.

Professional Mother

One is the trend of the **Professional Mother**, a lady who besides her homemaking chores holds down a job in an office or factory, who gets home only half an hour earlier than Dad, and who no longer has half an hour to do the breakfast dishes after the kids and Dad have rushed off to school and work. She too has to get to work on time.

So the Professional Mother, with too little time for regular meal preparation, turns to convenience foods. The extra cost of convenience is of minimal consequence to her because the family has two sources of income, not one. She will gladly pay to be relieved of kitchen drudgery. For the processor and retailer, that means better margins.

Household Duties

Another trend noted by Mr. Krum is the **Switch in Household Duties.** He points to the significance of finding

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Finger Foods —

(Continued from page 36)

more and more men in supermarkets doing the shopping, not just tagging along, but actually doing the selecting and buying. The women, for their part, are equally at home getting the car gassed up and the oil changed. Moreover, the women nowadays do the household accounts, a task formerly reserved for the man of the house. And the husband may be found loading the dishwasher.

The facts are that a lot of the jobs which were once exclusively female are now being taken over by men, and the reverse is true as well.

Does this pose a competitive threat? Frank Krum says it does if you accept his definition that anything that lops products off their normal place on the menu is a threat. "As the traditions break down, the buying influences change, brand loyalties break down and reform round new products and new ideas, and also around brands that speak out to the right people."

Certainly his theory that the more the men get into the kitchen and into the supermarket, the more the market will change, has foundation in fact.

Every food processor must ask himself:

(1) Whom did you have in mind when your packages were designed?

(2) Where are you putting your advertising?

(3) Whom do you have in mind as advertising appeals are written and approved?

Big Menu Switch

Another trend on the current scene is called the **Big Menu Switch.** This is where so-called breakfast foods such as scrambled eggs or pancakes are served for supper or around the clock. "We're hung up on the idea that certain meals must be served at certain times. But consumers aren't. It isn't that they are fighting the food traditions, it's just that they don't care. They are eating what they want, when they want it, and you had better take note."

Future Is Happening Now

Mr. Krum recalls something written by Sylvia Porter some time ago—"Whatever is going to happen is happening already." In short, when talking about big, important trends which will involve many millions of people, they do not arrive on the scene full blown. They come on small at first, and if you can locate them in the beginning and figure out what they mean, then you have some knowledge that is useful as a basis for forecasting what kinds of products people are going to buy and maybe even what kind of plants and machinery you will need to produce these products.

Mr. Krum summed it up like this: "The goal is as earthy and central as making more money for stockholders by gauging the future better and making better decisions than competitors on what will or won't sell down the road a piece."

No Extension on Packaging Compliance

The Federal Trade Commission has refused to delay the effective date of the Fair Packaging and Labeling Act beyond its July 1 deadline. Several requests for such delay had been made.

"Manufacturer" Defined

The commission also defined the meaning of the term "manufacturer of consumer commodity."

The definition spells out the requirements of Section 500.5 which requires the name and place of business of the manufacturer, packer or distributor on the label of a consumer commodity.

A manufacturer who supplies a bulk product to a packager for repackaging remains the manufacturer of the product, FTC declared.

If the packager modifies the bulk product by addition of any substance that changes its identity, the original manufacturer of the product loses that identification.

In that situation, the manufacturer must qualify his name on the package or label to read "distributed by or manufactured for" if he wants to use his own name.

In another interpretation of its manufacturer definition, FTC said that anyone who supplies a formula or specifications to a contract packager but who takes no part in production of a consumer product is not the manufacturer of the product.

This is true even if the firm supplying the formula or specification also supplies the raw materials that are to be mixed or otherwise modified to produce the product.

In Rejecting Delay

In rejecting a request for a delay in the effective date, FTC said it did not believe that general extensions beyond July 1 are in the best interests of the public or consistent with the intent of Congress.

One request had been received from a labeler who felt that packages for products which he distributed could not be redesigned to conform to the act's provisions by the July 1 date.

The commission said that new orders can continue to be filled with packages not modified to fulfill the act's requirements as long as the packages were not reordered after January 1, 1969. This will hold true, the commission said, for up to two years after July 1.

How to Fail

"Show me a thoroughly satisfied man, and I will show you a failure."—Thomas Edison.

H + K Equipment Offers Advantages

Hofliger + Karg CAR 8 and 9 offers a combination of advantages: high speed—up to 300 cartons per minute; low initial and operating costs; and quick change-over of carton sizes, according to G. Ziffer, President of Amaco, exclusive Sales Agent for Hofliger + Karg.

CAR 8 is equipped with a stepless drive, which has a range from 60 to 300 cartons per minute. The CAR 8 will package products in cartons up to 7⅛" x 2¾" x 3⅜". CAR 9 also has a stepless drive which has a range from 60 to 200 cartons per minute and will handle cartons up to 7⅛" x 4⅜" x 2¾". These new cartoning machines are the first high output/moderate priced machines on the market.

Quick Changeover

Complete change over of carton size on the CAR machines takes less than one hour. The CAR 8 and 9 will carton practically anything from a light bulb to coated tablets and are ideal for cartoning bottles, collapsible tubes, tins, ampules, blister cards, and strip packed goods. The machines will set-up and close either straight tuck, reverse tuck or glued cartons.

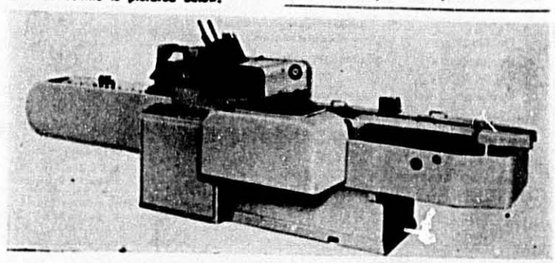
In addition to a variety of infeed devices for tubes, bulbs, bags, cylindrical objects, flat objects, multiple insertions, etc., a wide choice of optional accessories are offered. These include: sheet fed leaflet folder, roll fed leaflet folder, code and color embossers, gluing stations, plus transfer and collating devices to allow for in line integration.

Single Operator

Only one person is required to operate the CAR 8 or 9. Machines are precision engineered and ruggedly constructed. To minimize maintenance sealed bearings are used throughout.

For complete details write Amaco Incorporated, 2601 West Peterson Avenue, Chicago, Illinois 60622.

Machine is pictured below.



Convenience Packaging

Convenience packaging of food saves the modern housewife shopping and preparation time which she can squirrel away in her leisure time bank for other uses, Ralph Head, supermarket merchandising specialist, recently told the Eastern Chapter of the Package Designers Council in New York.

Modern housewives, of which some 20 million are also employed outside the home, have learned to "bank" small time segments through use of all possible time-saving devices including convenience packaging in the kitchen, Head said. These "snatches of time" are saved up to use for leisure, which the speaker defined as "the time left over to do the things you want to do after you have done the things you have to do."

Aluminum Is Versatile

Citing aluminum as a "versatile packaging material with many uses for convenience foods," Head said he was "fascinated" with aluminum's many packaging applications, potentials and opportunities-not-yet-realized.

Discussing the movement of products from market shelves to shopping carts and home, Head told the designers that "the package and its design are the only factors over which a manufacturer can exercise complete control in retail stores."

He reported that surveys in supermarkets have shown that between 30 and 40 per cent of shoppers pass through the check-out counters with at least one item they never before purchased. A primary reason given for these first-time purchases was "saw displayed." Aluminum packaging, with its natural eye-appeal and ease of decoration, play a key role in attracting the attention of supermarket shoppers, he observed.

65th Annual Meeting NMMA
Hotel Del Coronado
July 13-17, 1969

Film Competition

Together with the Sixth Exhibition of IPACK-IMA (displays of packing and packaging materials, materials handling equipment, food processing machinery) there will be a second International Film Competition at the Milan Trade Fair Grounds, October 4 - 10.

Films on the following subjects are invited:

- packaging production and its use in transport; materials, packing machines, packs, containers.
- packs for presentation and distribution; materials, machines and packs.
- methods in presentation, popularization and sale of products.
- foodstuffs industry: machines, equipment for food processing.
- mechanical handling: machines and materials, movement and storage of materials and products, pallets.

The competition is open to 8 or 16 mm films, produced by individuals, companies, or organization from all countries. Information on the show and its regulations are available from IPACK-IMA, General Secretariat, 62 via Carlo Ravizza, 20149, Milan, Italy. Some thirty-six films took part in the first competition.

How to Tame a Machine

How do you tame a machine?

The National Safety Council has produced a new slide show that discusses machines as if they were wild animals, and tells what precautions should be taken and why.

Some of the topics covered by the 30-slide set, "How to Tame a Machine," include:

— Knowing the machinery.

— Keeping guards in place.

— Keeping hands away from exposed moving parts.

— Not wearing gloves or jewelry when working with machines.

— Wearing comfortable, well-fitting clothing.

The slide series also includes a slide-by-slide script booklet with appropriate commentary for the showing.

The slides and 16-page script are packed in a handy shipping-storage container.

Persons interested in ordering the series—$19.00 per set (lower prices for quantity orders)—should order by stock number and title, 176.21, "How to Tame a Machine." Write to National Safety Council, 425 N. Michigan Ave., Chicago, Illinois 60611.

New Wyler Packages

Borden Foods has adopted a package design for its Wyler's dehydrated beverages, soups and gravies.

A window effect appears on all envelopes, the Wyler logotype has been updated and the new Borden logo has been placed on the same spot on all products.

The dehydrated soup and gravy mix packages have a full-color photograph of the product on the front panel. The background color for the soup line, with the exception of onion soup, and dip mix, is pale yellow. The onion soup is in a golden brown package to alert checkout personnel that the product is 5 cents more per package than the rest of the line. Gravy packages have a white background.

Wyler's fruit-flavored drinks are in brightly colored pouches, coded by flavor.

Packages are a laminate of paper, foil and polyethylene.

Durum spaghetti.
It's a must;
More elastic—
Doesn't bust.

Truck Costs Rise

Costs of licenses, taxes, and permits required by trucks have almost doubled in the past five years, according to a sample survey made recently among a group of affiliates of the National Truck Leasing System, a nation-wide network of independent, locally controlled lessors. In this current survey, 1968 truck procurement, maintenance, and running mile costs were matched against comparable ratio figures compiled in 1964. Licenses, taxes and permit expenses are fixed costs, quite beyond the control of the truck owner. In this survey they constituted the largest single step-up among all cost factors during the past five years, from an average of 3.82% in 1964 to an average of 6.65% in 1968. "These cost factors are equally applicable to truck users whether they operate their trucks under an ownership plan or full-service leasing," points out A. Walter Neumann, president of National Truck Leasing System and the executive head of the System's Chicago affiliate, Willet Truck Leasing Company.

Depreciation Climbs

Pertinent, too, are the survey figures which show current depreciation costs that now range from a low of 18.8% to a high of 24.0% of the dollar cost of supplying a truck under a full service lease contract. This compares with the 1964 average of 29.44%. "On analysis," observes Neumann, "it is evident that this change is not due to the fact that the trucks are being kept longer, but because depreciation now represents a smaller percentage of total expense."

Mechanics and other garage labor increased by 21.7% over the five-year period. Expense of buildings that house the service facilities took out 5.55% of the dollar in 1968 as compared with 4.53% in 1964. Overhead as a percent of the overall costs remained somewhat stable, amounting to 11.87% in 1968 and 12.24% in 1964. "It should be noted," explains Neumann, "that a lessor's overhead includes all management expenses, sales costs, advertising, executive and office personnel. These same cost factors, which are relatively small in truck leasing companies, take a much larger chunk out of the revenue dollar received by many other types of business enterprises."

Fuel Steady

On the other hand, 1968 fuel costs—gasoline and diesel fuel—were kept within a quarter of a percent of the 1964 fuel costs. This "holding the line" was attributed to the group purchasing arrangements under annual contract made available to Nationalease affiliates through its cooperatively owned Nationalease Purchasing Corporation, of which W. C. Warren of Rochester, New York is president.

"Ratio figures, such as our survey produced, help our nation-wide network of Nationalease affiliates to be kept fully aware of cost trends and with conditions being experienced by truck users who own their trucks in preference to leasing. This, in turn, provides our lessee-customers with controls that might be much more difficult for them to achieve if they were handling their own procurement and maintenance on the trucks they must operate as part of their primary business enterprises," concludes Neumann.

Tips on Trucking

Consultant Daniel J. Bartz told the Wholesale Grocers convention in Chicago that total truck operating costs, including driver compensation, is approaching $9 an hour. It is imperative that wholesalers do something to prevent further increases.

Mr. Bartz arrived at the $9 figure by detiling driver costs at an average wage of $3.11 an hour, which with fringe benefits, rose to an average of $5.18 an hour. Truck operating costs, including insurance and other direct items, amounts to 27¢ per mile.

For Improvements

Suggested improvements: (1) A boost in payload per stop and an increase in the number of stops per trip. (2) Improvement in driving time. (3) Better truck performance, such as increases in miles per gallon and the judicious purchase of fuel for return mileage on a long trip. It is less expensive to re-fuel at the firm's garage than to purchase fuel at a service station. (4) Increased use of computers for scheduling trips and providing current data on costs. (5) Compensate drivers by the mile driven (plus per hour for stops). This gets the equipment back to the warehouse faster than compensating drivers just by the hour.

How Are Your Sales Controls?

Here are some elements to consider whether you are working with a large or small sales team—direct salesmen or representatives.

1. **Sales Control Chart.**
   a. Do you have your own chart for reviewing sales contacts made on all key accounts?
   b. Do your salesmen and representatives have theirs?
   c. Are these reviewed periodically?

These charts are vital to good territorial management. They contain names of accounts, selling days per year and contacts made.

2. **Call Reports.**

The most successful companies require reports on every completed interview (not weekly summaries). Report should be concise and informative and should detail sales progress.

3. **Call Summary Sheets.**

This summary can be used for an overall weekly view of sales contacts at account. Works well in conjunction with sales control chart. Does not replace call report.

4. **Itineraries.**

Insistence on weekly, monthly, quarterly and annual itineraries helps salesmen do better job of planning and gives management important control device. Far too many companies are not on top of salesmen's territorial or contact planning.

5. **Expense Report.**

Suggest it accompany call reports, call summary sheet and itinerary for better control of costly expense dollars.

Retailers Advise On New Product Introductions

Jack Evans, president, Tom Thumb Stores, Dallas stated that through lack of cooperation with manufacturers, retailers often drop the ball in presenting a new product.

"We are constantly striving to be more strict in our selection of new products. We want new items, and want them first, because new products have eye and buy appeal. They offer variety to the consumer, and give the retailer increased sales, profits and a greater share of the market."

In-Store Promotion

Earl Madsen, president, Madsen's Super Valu Stores, Mankato, Minnesota said, "The success of the supermarket retailer also depends on the constant offering of new items. The consumer wants better foods and household items —not for newness' sake but because they are better than old items or make life a little easier.

"The important thing is how the product moves off the shelf. Because the success of the product depends on how it sells in the retail store, the retailer wants a stimulant to help the item move. Too often, the manufacturer —who has otherwise kept the ball rolling through adequate financing, good advertising and test marketing—will fall down in this area because he doesn't 'trust' the retailer to carry through with in-store promotion."

SMOOTH SELLING•

by George N. Kahn,
Marketing Consultant

NEVER LET WELL ENOUGH ALONE

Once retail stores resigned themselves to a slump after Christmas. Then someone got the idea of having a big sale in January and another in February. Stores staged white sales, warehouse sales and others to stimulate buying. The results have been well worth the effort. White sales draw thousands of shoppers who might otherwise have stayed home.

The lesson here is plain for the salesman. He must constantly think of creative ideas to boost sales, to wake up dozing prospects and to keep his own bank balance up. He can't rest on his laurels.

Try New Methods

Sales volume is often tied in with the enterprise of the seller. The more imaginative and creative he is, the more likely he is to be successful. The man who gets ahead isn't afraid to try out new ideas and methods. Nor is he content to remain forever with one idea or technique because it worked well once. Every presentation, no matter how brilliant, needs to be reviewed from time to time to determine if it's still serviceable. This is true of other fields of endeavor. A builder may seek a new design even though the present one has been enormously successful. But he knows that styles change as do people's tastes. He is looking forward to the day when his house model, for example, no longer is attractive to the buyer. Even nations re-examine their foreign relations from time to time to meet new situations.

In short, the world moves on and the salesman must move with it. Constantly analyze your selling methods to see if they fit your present needs. If not, discard them for new ones. Don't let well enough alone. If changes are necessary, make them.

Selling And Research

The above point is well illustrated by the story of Jack Case, who went into selling color pigments from the research and development section of his firm. Jack had a college degree in chemistry. At first he did not see any connection between his previous work in the lab and selling. His first weeks as a salesman were not impressive. He had much trouble meeting his quota. Still, he liked the idea of selling and didn't want to give it up. One day his supervisor called him in and said:

"Jack, I think you have the potential for a great salesman but you are not achieving that potential."

Jack agreed, adding that perhaps he ought to have remained in research.

"No, you shouldn't have," the boss replied, "but you've given me an idea. I haven't had a scientific education but doesn't research involve trying and testing new methods and ideas?"

"That's right," said Jack, beginning to see the light.

"Well, in a way, so does selling," the supervisor continued. "The men who make it big in sales are those who experiment, who are daring, who are not afraid of change."

This was the trigger Jack needed to start him off. He began to think of selling in the same way he had thought of research—as something to be explored and improved. He developed new ideas, rejected old ones and soon was among the leading salesmen in his firm. He realized at last that selling was not static, that it was a dynamic facet of business.

Fearing Reaction

There is always the possibility that a new idea will displease a customer or prospect. But it's more likely he will appreciate the salesman's effort to help him. In any case, nothing should keep the seller from introducing new methods. This should be particularly true if a salesman's old habits do not seem to be producing the desired results. The time is ripe then to switch to another plan. Perhaps it may involve merchandising ideas for the customer. Or it may concern a new way to speed up orders. The point is to experiment until the right formula is found. Never mind about what other people will think. Your job is to sell and you should seek whatever method is best suited to this goal.

Put A New Edge On It

I'm not advocating that you drop everything you're doing and swing over to new methods and techniques. There is much that is good and worthwhile in established methods. They certainly should not be rejected out of hand. Some top salesmen are using presentations they developed 10 and 15 years ago.

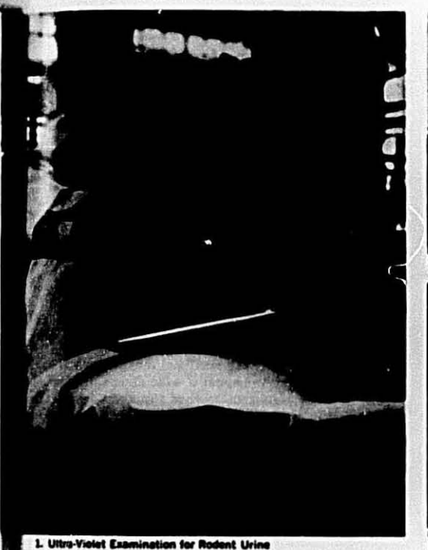
But every method, no matter how good it once was, needs revision every now and then. It needs a new edge. Take, for example, some appliances we use today. Basically, these vacuum sweepers, toasters, refrigerators, mixers, etc. are the same as they were 10 or even 20 years ago. But they have undergone various refinements to make them more attractive, more efficient and more durable. In like manner your presentation or sales talk should be revamped or refined periodically. Perhaps it isn't geared for modern selling. Or maybe it's old-fashioned in some ways. Perhaps it doesn't deal specifically enough with current market conditions. Whatever the reason, take steps to bring it into shape.

The Personal Touch

Treat your customers with kindness and consideration no matter how long you've known them. Don't let familiarity breed contempt. You also might improve your relationship by demonstrating to the buyer that you do not regard him as "in the bag," that you are constantly thinking of ways to do something special for a particular customer, letting him know that it's just for him. This is bound to strengthen your relationship with him.

Are you letting well enough alone or are you never satisfied with your performance? Take the following quiz and see. If you can answer "yes" seven times or more you are making progress.

	Yes	No
1. Do you try new methods and techniques with customers?	—	—
2. Do you try to become top man in your organization?	—	—
3. Are you constantly trying to beat your own record?	—	—
4. Do you keep up your personal habits at a high level?	—	—
5. Have you thought of ways to improve or revise your presentation?	—	—
6. Do you manage to take away a buyer from a long-time supplier?	—	—
7. Does your presentation reflect improvements in your product?	—	—
8. Do you occasionally perform a special service for a customer?	—	—
9. Do you come up with creative ideas in selling?	—	—
10. Can you honestly say, "I'm not resting on my laurels."	—	—



1. Ultra-Violet Examination for Rodent Urine

2. Sift Test For Insect Evidence

3. Equipment Inspection

4. Report To Management

INDEX TO ADVERTISERS

Law Day

"Only a lawful society can build a better society" was the theme for Law Day U.S.A., celebrated on May 1 at patriotic observances throughout the United States. The Macaroni Journal commends the importance of Law Day, because the ideals of equality and justice can never be attained without a deep respect for law, without putting forth individual effort to sustain our rights and freedoms, and without learning the basic fact that the rule of law is always superior to the rule of force.

As a citizen each one of us has certain rights, such as:

The right to equal protection of laws and equal justice in the courts.

The right to be free from arbitrary search or arrest.

The right to equal educational and economic opportunity.

The right to choose public officers in free elections.

The right to own property.

The right of free speech, press, and assembly.

The right to attend the church of your choice.

The right to have legal counsel of your choice and a prompt trial if accused of crime.

As a citizen each one of us also has certain duties, such as:

The duty to obey the laws.

The duty to respect the rights of others.

The duty to inform yourself on issues of government and community welfare.

The duty to vote in elections.

The duty to serve on juries if called.

The duty to serve and defend your country.

The duty to assist agencies of law enforcement.

The duty to practice and teach the principles of good citizenship in your own home.

As a citizen of our great country and as enumerated above, each of us has rights and duties, but such rights and duties must have an active place in our daily lives. Law Day must not just occur once a year; it must occur every day. Then we will make progress toward the goals given to us by our Founding Fathers. Otherwise, the advocates of force will prevail with the rights and duties of citizens in jeopardy and a huge tax bill to pay for other than our cherished freedoms.

Formula to Realize American Dream

"The American dream . . . comes true only to the extent that men work, sacrifice and struggle to make it come true." —Arch N. Booth, executive vice president, Chamber of Commerce of the United States.

Creamette Officials

Robert H. Williams has been elected chairman of the board of the Creamette Company, Minneapolis. Lawrence O. Williams was elected president and chief executive officer of the company.

Heinz Spaghetti Sauce

A new ready-to-use spaghetti sauce is being offered by H. J. Heinz Company in four different varieties and in two sizes. They are being test-marketed in Albany - Schenectady - Troy, New York and Scranton-Wilkes Barre, Pennsylvania.

The new sauce is available without meat, with meat, with mushrooms, or with both meat and mushrooms, to give the consumer a wide choice. Packed in glass containers of a modern design, the new convenience food line features labels that are color coded for easy shopper identification. Contents can be readily inspected by the customer because labels cover only a small surface area of the container. In consumer taste tests, the new Heinz product won out over competing brands by a 2 to 1 margin.

Labatt Acquires Manning's

John Labatt, Ltd., Canadian brewer and parent company of Ogilvie Flour Mills, is to acquire Manning's Inc., San Francisco, a privately owned food service firm. Manning's owns a management company with clients among food service operators in several western states, a chain of twenty-five cafeterias, and a prepared food manufacturing plant at Eugene, Oregon, which supplies the institutional market, cafeterias and management operations. The company also roasts coffee. Manning's sales exceed $25,000,000 a year.

Foods for the Hungry

The Pillsbury Company has been awarded a $180,500 contract by the Office of Economic Opportunity to conduct market research and testing of nutritional foods for the hungry and malnourished. Objectives of the study will be to develop foods that will supply needed nutrition, can be distributed efficiently, are priced within the means of the target population, and are acceptable to that population.

Total Commitment Needed for Success

"Unless a man believes in himself, makes a total commitment to this career, and puts everything he has into it, he'll never be successful at anything he undertakes." — Vince Lombardi, noted professional football coach.

When a fella needs a friend...

friend (frend) n 1: a person whom one knows and is fond of; an associate regarded with mutual respect. 2: a person on the same side in a struggle; an ally; one held in common esteem.

That's us!

For quality, service, experience and know-how, count us as a friend when you need one.

DURUM DIVISION